Hazardous Materials COMPLIANCE Manual

J. J. Keller & Associates, Inc.®
Since 1953

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HAZARDOUS MATERIALS COMPLIANCE MANUAL

Introduction

The "*Hazardous Materials Compliance Manual* " has been developed as a companion publication to the "*HazardousMaterials Regulations Guide* " to assist the regulated community in better understanding the Hazardous Materials Regulations.

The Hazardous Materials Regulations, 49 CFR Parts 106 through 180 issued by the Pipeline and Hazardous Materials Safety Administration (PHMSA) of the U.S. Department of Transportation (DOT) are not only very detailed, but also complicated. In this manual, we have attempted to provide the user with some understanding of the Hazardous Materials Regulations and guidance to better compliance with the requirements.

The section "WORKING WITH HAZMAT REGULATIONS" provides a brief discussion of areas that the user often has difficulty with in developing a working knowledge of the regulations.

Next is "QUESTIONS & ANSWERS." This section contains commonly asked questions from the regulated community.

The third section is "TRAINING," which provides a discussion of the various parts of the requirements in Part 172 subpart H, along with guidance to assist the user in developing a training program.

"SECURITY" is a new section that will help the user target any potential security risks that may exist in the hazmat transportation process. It will also assist in the preparation of a security plan, if one is required.

The fifth section, "STATE REQUIREMENTS," contains information on state specific requirements concerning hazardous materials such as licenses/permits/registrations, routing, and safe havens.

The last section of the manual is the "REFERENCES" section, which contains: address and telephone numbers of the Federal Railroad, Federal Aviation and Federal Motor Carrier Safety Administrations; various government agencies and private organizations involved with hazardous materials and accident assistance; and finally the "Preambles" to Dockets finalized during the past few years.

Revision bars, like the one at the left of this paragraph, are used in this publication to show where significant changes were made on update pages. The revision bar next to text on a page indicates that the text was revised. The date at the bottom of the page tells you when the revised page was issued.

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U.S. Department of Transportation

The U.S. Department of Transportation (DOT) was established in 1966 to "assure the coordinated, effective administration of the transportation programs of the Federal Government" and to "develop national transportation policies and programs conducive to the provisions of fast, safe, efficient, and convenient transportation." The Department presently consists of the Office of the Secretary and operating administrations whose heads report directly to the Secretary and who have highly decentralized authority. The Pipeline and Hazardous Materials Safety Administration (PHMSA) is one of these administrations.

Pipeline and Hazardous Materials Safety Administration

The Pipeline and Hazardous Materials Safety Administration (PHMSA) has numerous responsibilities that include:

- Hazardous materials transportation
- Pipeline safety
- Transportation emergency preparedness
- Safety training

These responsibilities are subdivided among its offices. The office in charge of developing and issuing amendments to the Hazardous Materials Regulations is the Office of Hazardous Materials Safety.

Office of Hazardous Materials Safety

The Office of Hazardous Materials Safety (OHMS) is the focal point for the coordination and control of DOT's multi-modal hazardous materials regulatory program. It ensures uniformity of approach and action by all modal administrations — that is, the Federal Railroad Administration, Federal Aviation Administration, U.S. Coast Guard, and Federal Highway Administration.

The Office is responsible for developing and issuing amendments to the Hazardous Materials Regulations for the safe transportation of hazardous materials by all modes, excluding bulk transportation by water. These regulations cover shipper and carrier operations, packaging and container specifications, and hazardous material classification and identification.

Many unusual shipping situations and needs are not addressed in the current regulations. The Office grants safety permits and approvals on a case-by-case basis upon determining that the level of safety is equivalent to existing regulations or consistent with the public interest.

The Office also has an inspection and enforcement program for packaging in all forms and related retesting and reconditioning activities.

Bureau of Explosives

The Bureau of Explosives is mentioned in various sections throughout the Hazardous Materials Regulations. While it is not a government agency, or in any way tied to the Department of Transportation, the Bureau has played an important role in shaping our present-day regulations.

The Bureau was started by the railroad industry in 1907 to serve as the “self-policing” agency in the area of hazardous materials transportation. Shortly thereafter, the Bureau, in cooperation with the manufacturers of explosives, submitted a set of regulations to the Interstate Commerce Commission (ICC). These regulations were adopted by the Commission in 1908. They were later adopted by DOT and form the basis for the Hazardous Materials Regulations.

Hazardous Materials Regulations (49 CFR Parts, 106-180 & 397)

The Hazardous Materials Regulations (HMR) have existed for many years, and during these years, have undergone many changes. The changes have been part of PHMSA's continued efforts to reduce the regulatory burden on industry, while maintaining a safe transportation environment.

Since 1968 PHMSA has been working to improve the HMR and align it with an internationally-based performance standards system. PHMSA's intent is to provide U.S. industry with freer access to world markets by aligning the Hazardous Materials Regulations with the *UN Recommendations*. Keep in mind that the following are in chronological order and some of the fina rules have been replaced by newer fina rules.

HM-181

On December 21, 1990, RSPA, the predecessor agency to PHMSA, published a fina rule on Docket HM–181. The rule comprehensively revised the Hazardous Materials Regulations with respect to hazard communication, classification and packaging — to harmonize the HMR with the sixth revised edition of the *UN Recommendations*.

HM-215B

On May 6, 1997, RSPA, the predecessor agency to PHMSA, published Docket HM-215B to further align the HMR with the ninth revised edition of the *UN Recommendations* and other international regulations. The fina rule substantially revised the Hazardous Materials Table.

HM-215B was effective October 1, 1997, and mandatory compliance was required beginning October 1, 1998.

HM-215C

On March 5, 1999, RSPA, the predecessor agency to PHMSA, published Docket HM-215C to bring the HMR into alignment with the tenth revised edition of the *UN Recommendations*, the 1999-2000 ICAO Technical Instructions, and Amendment 29 to the IMDG Code.

Some changes from this fina rule include:

- Revisions to the Hazardous Materials Table including a new symbol — "G" —in Column 1 to designate proper shipping names that require technical names. The list of generic names formerly found in Section 172.203(k)(3) was removed.
- Elimination of the KEEP AWAY FROM FOOD label and placard for Division 6.1 PG III materials and authorization of a label modificatio and marking for Division 6.1 PG III materials.

HM-215C was effective October 1, 1999, but mandatory compliance was not required until October 1, 2000. Voluntary compliance was authorized immediately (March 5) with all changes except the provisions in Sec. 173.301(i). (Changes to this section will affect transportation of hazardous materials in non-DOT cylinders that meet therequirements of the IMDG Code.) The KEEP AWAY FROM FOOD label and placard was allowed to continue to be used until October 1, 2003.

HM-215D

On June 21, 2001, RSPA, the predecessor agency to PHMSA, published Docket HM-215D to maintain alignment with international standards by incorporating various changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations, and vessel stowage requirements.

In addition, the fina rule revises the requirements for intermediate bulk containers (IBCs) and UN portable tanks for alignment with international requirements.

The revisions were necessary to facilitate the transport of hazardous materials in international commerce, due to changes to the International Maritime Dangerous Goods Code (IMDG Code), the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions), and the United Nations Recommendations to the Transport of Dangerous Goods (UN Recommendations).

A significan change to the HMR in the fina rule was the requirement to distinguish between primary and subsidiary risk labels and placards.

The effective date for the amendments was October 1, 2002. Voluntary compliance was authorized starting June 21, 2001, except for the ICAO Technical Instructions and the IAEA Regulations for the Safe Transport of Radioactive Material that were authorized for use on July 1, 2001.

Mandatory compliance with the amendments was required October 1, 2002, except for the following:

- Subsidiary labels, with no number in the bottom part of the label, could be used until October 1, 2005.
- Subsidiary placards, with no number in the bottom part of the placard, which were permanently affixed before October 1, 2001, could continue to be used in domestic transportation.
- Non-permanently affixed placards, with no number in the bottom part of the placard, could be used until October 1, 2005.

HM-232

The Research and Special Programs Administration (RSPA), the predecessor agency to PHMSA, established new requirements (HM-232) to enhance the security of hazardous materials transported in commerce.

All shippers and carriers of hazardous materials must make sure hazmat employees receive training that includes a security component. In addition, shippers and carriers of certain highly hazardous materials must develop and implement security plans, as well as provide in-depth security training to employees.

Security Awareness Training (Part 172, Subpart H)

Security awareness training requirements are located at 49 CFR 172 Subpart H. New hires need to be trained within 90 days of employment. Each hazmat employee must receive training that will provide an awareness of security risks associated with hazmat transportation, as well as methods designed to enhance transportation security. The security awareness training must also include a component covering how to recognize and respond to possible security threats.

Security Plans and In-Depth Security Training (Part 172, Subpart H & I)

NOTE: Please refer to HM-232F for updated requirements.

Each person who offers for transportation in commerce or transports in commerce one or more of the following hazardous materials must develop and adhere to a security plan for hazardous materials that conforms to the requirements:

- A highway route-controlled quantity of a Class 7 (radioactive) material, as define in §173.403, in a motor vehicle, rail car, or freight container;
- More than 25 kg (55 pounds) of a Division 1.1, 1.2, or 1.3 (explosive) material in a motor vehicle, rail car, or freight container;
- More than one L (1.06 qt) per package of a material poisonous by inhalation, as define in §171.8, that meets the criteria for Hazard Zone A, as specifie in §§173.116(a) or 173.133(a);
- A shipment of a quantity of hazardous materials in a bulk packaging having a capacity equal to or greater than 13,248 L (3,500 gallons) for liquids or gases or more than 13.24 cubic meters (468 cubic feet) for solids;
- A shipment in other than a bulk packaging of 2,268 kg (5,000 pounds) gross weight or more of one class of hazardous materials for which placarding of a vehicle, rail car, or freight container is required for that class under the provisions of Subpart F (Placarding);
- A select agent or toxin regulated by the Centers for Disease Control and Prevention under 42 CFR Part 73; or
- A quantity of hazardous material that requires placarding under the provisions of Subpart F (Placarding).

The security plan must include an assessment of possible transportation security risks and appropriate measures to address the assessed risks. At a minimum, a security plan must include the following:

- Personnel security — Steps must be taken to confir information that is provided by job applicants hired for positions involving access to and handling of the hazardous materials covered by the security plan.
- Unauthorized access — Steps must be taken to address the assessed risk that unauthorized persons may gain access to the hazardous materials covered by the security plan or transport conveyances being prepared for transportation of the hazardous materials covered by the security plan.
- En route security — Steps must be taken to address the assessed security risks of shipments of hazardous materials covered by the security plan en route from origin to destination, including shipments stored incidental to movement.

Hazmat shippers and carriers required to complete a security plan were required to do so by September 25, 2003.

The security plan must:

- be in writing and must be retained for as long as it remains in effect.
- be revised and updated as necessary to reflec changing circumstances.

Copies of the security plan must be made available to the employees who are responsible for implementing it, consistent with personnel security clearance or background investigation restrictions, and a demonstrated need-to-know.

The training is required to include company security objectives, specifi security procedures, employee responsibilities, actions to take in the event of a security breach, and the organizational security structure.

HM-215E

A fina rule for HM-215E, Harmonization with International Standards, was published on July 31, 2003. The changes in the fina rule were effective October 1, 2003. Immediate voluntary compliance was allowed.

Mandatory compliance was required October 1, 2004, unless delayed compliance dates were specifie in the regulations. Delayed compliance dates for any of the amendments listed are shown in parenthesis.

Some of the major HM-215E amendments include:

- Numerous amendments to the Hazardous Materials Table which would add, revise or remove certain proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, bulk packaging requirements, passenger and cargo aircraft maximum quantity limitations and vessel stowage provisions. (The use of proper shipping names that do not identify specifi isomers by numbers or letters preceding the chemical name could be used until Oct. 1, 2005.) (The use of proper shipping names that contain the word “compressed” could be used until Oct. 1, 2007)
- Amendments to the List of Marine Pollutants.
- Revisions and additions of special provisions. Included is the addition of a special provision for assignment to aerosol entries setting forth the criteria for classifying aerosols.
- Addition of a requirement to enter the subsidiary hazard class or subsidiary division number on shipping papers (except by vessel, Oct. 1, 2005).
- Addition of a requirement to indicate the number and types of packagings on shipping papers (Oct. 1, 2007).

- Addition of an alternative basic description sequence on shipping papers (UN1203, Gasoline, 3, PGII).
- Revision of marking requirements for limited quantities. Ether the current proper shipping name marking or the new ID number in a diamond marking may be used.
- Addition of the air eligibility marking requirement.
- Revision of requirements in Section 173.27 for packagings intended for transportation by aircraft, including revision of requirements for use of absorbent material for such packagings.
- Revision of classificatio of air bag modules, air bag inflator and seat-belt pre-tensioners from Division 2.2 to Class 9.
- Revision of the non-liquefie and liquefie compressed gases descriptions, and the addition of high pressure and low pressure liquefie gases categories.
- Revisions and additions to the Self-Reactive Materials Table.
- Revisions and additions to the Organic Peroxide Table.
- Revision of the net weight restrictions for explosives in freight containers exceeding 20 feet (6 m) in length.

HM-215G

A fina rule for HM-215G was published December 20, 2004. The changes in the rule were effective January 1, 2005, with a general extended compliance date of January 1, 2006.

Some of the major amendments to the HMR include:

- Amendments to the Hazardous Materials Table (HMT) which add, revise or remove certain proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, bulk packaging requirements, passenger and cargo aircraft maximum quantity limitations and vessel stowage provisions. The entire HMT was reprinted in the fina rule.
- Amendments to the List of Marine Pollutants.
- Revisions and additions of special provisions.
- Removal of the air eligibility marking requirement.
- Addition of a “KEEP AWAY FROM HEAT” marking requirement for packages offered for transportation by air.
- Amendment to require that aerosols that are carried aboard an aircraft in accordance with 49 CFR 175.10(a)(4) have their release devices protected by a cap or other suitable means.
- A grandfather provision to allow the shipment of materials classifie as corrosive to steel or aluminum under ASTM G 31-72.

- A provision to require that the word “OVERPACK” be marked on overpacks to indicate that inside packages comply with prescribed specifications
- An amendment to the criteria for classificatio of materials that are corrosive to metals.
- Revision of the limited quantity provisions for Class 6.1, PG II materials and for materials with a subsidiary hazard of 6.1, PG II.
- Amendments to the packaging requirements for materials classifie as Division 6.1, Packing Group I, Hazard Zone A or Hazard Zone B.
- Revision of the organic peroxide packaging requirements in order to have one consolidated packaging section for organic peroxides. The revised section will include three separate tables for organic peroxides authorized for transport in non-bulk packagings, IBCs, and bulk packagings other than IBCs, respectively. Additionally, the packaging tables will be updated through the amendments to the organic peroxide requirements that will add, revise, or delete certain entries in the organic peroxide tables.

HM-215I

In the fina rule, PHMSA adopted the following amendments:

- Adoption of a single shipping paper description sequence (identificatio number, proper shipping name, hazard class or division, packing group). The mandatory compliance date is January 1, 2013.
- Requirement to indicate the net quantity of hazardous material per package on the shipping paper if transportation is by aircraft.
- Incorporation by reference of the updated ICAO Technical Instructions, IMDG Code, and UN Recommendations.
- Amendments to the Hazardous Materials Table to add, revise, or remove certain proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, bulk packaging requirements, passenger and cargo aircraft maximum quantity limitations, and vessels stowage provisions.
- Revision of the ORGANIC PEROXIDE label and placard. Mandatory compliance dates are January 1, 2011, for the label; January 1, 2011, for the placard for transport by air, rail, and vessel transport and January 1, 2014, for highway transport.
- Revision of the classificatio criteria for PG III flammabl liquids. Mandatory compliance is January 1, 2012.
- Revision of the classificatio criteria and packing group assignments for Division 6.1 materials. Mandatory compliance is January 1, 2012.
- Requirements for the transportation of fuel cells containing flammabl liquid.
- Adoption of a one-packet limit for matches carried by airline passengers or crew members.

HM-215I may be viewed in the PREAMBLES tab.

HM-215F

In the final rule, PHMSA amends the HMR to revise, consolidate, and clarify the HMR provisions authorizing the use of the ICAO Technical Instructions, the IMDG Code, the Transport Canada TDG Regulations, and the IAEA Regulations, as previously contained in 49 CFR 171.11, 171.12, and 171.12a.

The newly designated sections, as adopted in the final rule, will continue to permit both domestic and international shipments of hazardous materials to be offered for transportation and transported under the provisions of the applicable transport standards and regulations, subject to certain conditions and limitations.

Additionally, PHMSA is consolidating the newly designated sections for the use of international standards and regulations into a new Subpart C.

New Subparts

With the addition of Subpart C to Part 171, PHMSA also added new subparts to more appropriately separate the remaining sections in current Part 171.

Subpart A has been added to include the current provisions concerning the applicability of the HMR and general requirements for transportation, and provisions for the Paperwork Reduction Act, reference material, definitions and abbreviations, rules of construction, units of measure, and North American shipments.

Subpart B is added to include the current provisions for incident reporting, approvals, and authorizations issued by the Bureau of Explosives, submission of reports, and investigations and special studies.

PHMSA did not propose revisions to the requirements in new Subparts A and B of Part 171.

In the final rule, the reorganized subparts are adopted as proposed in the NPRM except, as indicated above, requirements applicable to Canadian and Mexican shipments are located in 49 CFR 171.12.

HM-215F may be viewed in the PREAMBLES tab.

HM-232E

The Pipeline and Hazardous Materials Safety Administration (PHMSA), in coordination with the Federal Railroad Administration (FRA), and the Transportation Security Administration (TSA), took steps to improve safety and security by revising requirements applicable to the transportation of hazardous materials by rail.

All three agencies published separate rulings on November 26, 2008.

In brief, the new rule requires rail carriers to compile annual data on certain shipments of explosive, toxic by inhalation, and radioactive materials; use the data to

analyze safety and security risks along rail routes where the materials are transported; assess alternative routing options; and make routing decisions based on the assessments.

HM-232E may be viewed in the PREAMBLES tab.

HM-215J/224D

A final rule for HM-215J (Harmonization with International Standards) and HM-224D (Batteries and Battery-Powered Devices) was published in the *Federal Register* on January 14, 2009.

To maintain alignment of the HMR with international requirements, PHMSA incorporated changes based on the Fifteenth revised edition of the UN Recommendations, Amendment 34 to the IMDG Code, and the 2009– 2010 ICAO TI, that became effective January 1, 2009. PHMSA also addressed petitions for rulemaking concerning harmonization with international standards and additional measures to facilitate international transportation.

The following is a summary of the major changes in the final rule:

- Incorporation by reference of the updated ICAO Technical Instructions, IMDG Code, Canada's TDG, UN Recommendations, and two new ISO standards.
- Amendments to the Hazardous Materials Table to add, revise, or remove certain proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, bulk packaging requirements, passenger and cargo aircraft maximum quantity limitations and vessels stowage provisions. Also, several entries are revised to correct typographical errors.
- Amendments to 49 CFR 172.102 - Special Provisions to revise 11 special provisions, add 7, and remove 3.
- New Marine Pollutant marking and a revised list of Marine Pollutants.
- New excepted quantities requirements and marking.
- Revised Cargo Aircraft Only label.
- Amendments to the Organic Peroxide Tables to add, revise, or remove certain hazardous materials and provisions.
- New IBC marking for stacking.
- Amendments to provide fuel cell packaging requirements, limited quantity exceptions, and expanded types allowed in carry-on baggage.
- Amendments to enhance the safe transportation of batteries and battery-powered devices, such as incident reporting, "not restricted" marking, and clarifications for dry batteries.

HM-215J/224D may be viewed in the PREAMBLES tab. The January 14, 2009, final rule in its entirety (including the new regulations as they appear in the HMR) may be accessed at www.jjkeller.com/thm.

HM-232F

HM-232F, Risk-Based Adjustment of Transportation Security Plan Requirements, was published in the March 9, 2010, *Federal Register*. The Pipeline and Hazardous Materials Safety Administration (PHMSA), in consultation with the Transportation Security Administration (TSA) of the Department of Homeland Security (DHS), modifie current security plan requirements applicable to the commercial transportation of hazardous materials by air, rail, vessel, and highway.

Based on an evaluation of the security threats associated with specifi types and quantities of hazardous materials, the fina rule narrows the list of materials subject to security plan requirements and reduces associated regulatory costs and paperwork burden. The fina rule also clarifie certain requirements related to security planning, training, and documentation. HM-232F becomes effective October 1, 2010; voluntary compliance with all the amendments in the fina rule was authorized as of April 8, 2010.

The following are the new security plan requirements; "large bulk quantity" refers to a quantity greater than 6,614 pounds for solids or 792 gallons for liquids and gases in a single packaging such as a cargo tank motor vehicle, portable tank, tank car, or other bulk container. Each person who offers for transportation in commerce or transports in commerce one or more of the following hazardous materials must develop and adhere to a transportation security plan for hazardous materials that conforms to the hazmat requirements:

- Any quantity of a Division 1.1, 1.2, or 1.3 material;
- A quantity of a Division 1.4, 1.5, or 1.6 material requiring placarding in accordance with 49 CFR 172.504(c);
- A large bulk quantity of Division 2.1 material;
- A large bulk quantity of Division 2.2 material with a subsidiary hazard of 5.1;
- Any quantity of a material poisonous by inhalation, as define in 49 CFR 171.8;
- A large bulk quantity of a Class 3 material meeting the criteria for Packing Group I or II;
- A quantity of a desensitized explosives meeting the definitio of a Division 4.1 or Class 3 material requiring placarding in accordance with 49 CFR 172.504(c);
- A large bulk quantity of a Division 4.2 material meeting the criteria for Packing Group I or II;
- Any quantity of a Division 4.3 material;
- A large bulk quantity of a Division 5.1 material in Packing Groups I and II;
- Perchlorates; or ammonium nitrate, ammonium nitrate fertilizers, or ammonium nitrate emulsions, suspensions, or gels;
- Any quantity of organic peroxide, Type B, liquid or solid, temperature controlled;
- A large bulk quantity of Division 6.1 material (for a material poisonous by inhalation;

- A select agent or toxin regulated by the Centers for Disease Control and Prevention under 42 CFR Part 73 or the United States Department of Agriculture under 9 CFR Part 121;
- A quantity of uranium hexafluorid requiring placarding under 49 CFR 172.505(b);
- International Atomic Energy Agency (IAEA) Code of Conduct Category 1 and 2 materials including Highway Route Controlled quantities as define in 49 CFR 173.403 or known as radionuclides in forms listed as RAM-QC by the Nuclear Regulatory Commission;
- A large bulk quantity of Class 8 material meeting the criteria for Packing Group I.

HM-232F may be viewed in the PREAMBLES tab.

HM-215K

HM-215K, Hazardous Materials: Harmonization With the United Nations Recommendations, International Maritime Dangerous Goods Code, and the International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air, was published in the January 19, 2011, *Federal Register*. PHMSA amended the Hazardous Materials Regulations to maintain alignment with international standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport limited quantities, and vessel stowage requirements.

The following is a summary of the major changes contained in the fina rule:

- Incorporation by reference of the updated ICAO Technical Instructions, IMDG Code, Canadian TDG, UN Recommendations, and many ASTM, ISO, and OECD standards;
- Amendments to the Hazardous Materials Table to add, revise, or remove certain proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, bulk packaging requirements, passenger and cargo aircraft maximum quantity limitations, and vessels stowage provisions;
- Amendments to §172.102 - Special Provisions to add, revise, or remove many entries;
- Amendments to the Organic Peroxide Table to add and revise entries;
- Numerous changes to the limited quantity requirements including new limited quantity markings, the phase-out of the ORM-D markings, new limits for limited quantities by air, and authorizing flammabl gas and water-reactive solid fuel cell cartridges as limited quantities and consumer commodities;
- New requirements for sour crude oil in bulk, including the GHS toxic pictogram or wording warning of a Possible Hydrogen Sulfid Inhalation Hazard;
- Adoption of several In Vitro testing methods for classifying corrosive materials;

- Adoption of new test methods for determining flammabl liquid flas points and boiling points;
- New classificatio requirements for certain Division 1.4S explosives;
- New requirements for hydrogen in metal hydride storage systems; and
- Revised definitio of "repair" for composite IBCs;

Voluntary compliance was authorized beginning January 1, 2011. The fina rule was effective January 19, 2011. Mandatory compliance is required January 1, 2012, except for the following compliance dates. The ORM-D-AIR marking can be used until December 31, 2012. The new limited quantity air marking must be used starting January 1, 2013. The ORM-D marking can be used until December 31, 2013. The new limited quantity marking must be used starting January 1, 2014.

HM-215K may be viewed in the PREAMBLES tab.

Subsequent fina rule HM-215K was released December 30, 2011, and is also available to be viewed in the PREAMBLES tab.

The new fina rule responded to administrative appeals, provided clarifications and corrected typographical and other minor errors adopted in an international harmonization fina rule published January 19, 2011 (HM-215K; 76 FR 3308). The new fina rule amended the Hazardous Materials Regulations by revising, removing, or adding proper shipping names, the hazard class of a material, packing group assignments, special provisions, packaging authorizations, packaging sections, air transport quantity limitations, and vessel stowage requirements. The amendments were necessary to align the HMR with revisions to international standards for the transport of hazardous materials by all modes.

PHMSA-2005-22356

Hazardous Materials: Enhanced Enforcement Authority Procedures

PHMSA implemented enhanced inspection, investigation, and enforcement authority conferred on the Secretary of Transportation by the Hazardous Materials Transportation Safety and Security Reauthorization Act of 2005. The fina rule established procedures for issuance of emergency orders (restrictions, prohibitions, recalls, and out-of-service orders) to address unsafe conditions or practices posing an imminent hazard; opening packages to identify undeclared or non-compliant shipments, when the person in possession of the package refuses a request to open it; and the temporary detention and inspection of potentially non-compliant packages. The fina rule created a new part, *49 CFR Part 109, Procedural Regulations for Opening of Packages, Emergency Orders, and Emergency Recalls*.

In the fina rule, PHMSA implemented statutory authority to establish procedures for issuing emergency orders to address imminent hazards. In addition, statutory authority for DOT agents during an inspection conducted under existing enforcement authority was also implemented. These procedures will apply in a number of contexts and circumstances:

- An agent may open a package to determine whether it contains non-compliant shipments of hazardous materials when the agent has reason to believe that the package does not comply with regulatory requirements. These procedures apply to the opening of any packaging component not immediately adjacent to the hazardous material. Agents will not open single packagings (such as cylinders, portable tanks, cargo tanks,

or rail tank cars) nor will agents open the innermost receptacle of a combination packaging. An agent will only open a package with cause and if the person in possession of the package refuses to open it;

- An agent may temporarily remove a package or shipment from transportation, or prevent its entering transportation, when the agent believes that the package or shipment may pose an imminent hazard. Such a belief may arise from a compliance problem identifie as a result of opening the package or fromconditions observed through an inspection that does not include opening the package. The agent may remove a package or related packages from transportation for up to 48 hours on his or her own authority provided he/she records in writing the basis for his/her belief that the package or related packages may pose an imminent hazard. This regulation implements statutory authority for DOT to take immediate action to remove a potentially dangerous package from transportation, rather than seeking a court order to stop a package;
- An agent may order the person in possession of or responsible for the package to transport the package and its contents to a facility that will examine and analyze its contents. An agent may issue such an order for any type of package. The agent may issue this order on his/her own authority provided he/she documents his/her reasoning and provides written notificatio for the reasons for removal;
- An agent will assist in preparing a package for safe and prompt transportation if, after a complete examination of a package initially thought to pose an imminent hazard, no imminent hazard is found. If the package has been opened, the agent will assist in reclosing the package in accordance with the packaging manufacturer's closure instructions marking the package to indicate that it was opened and reclosed in accordance with DOT procedures, and returning it to the person from whom it was obtained; and
- An out-of-service (OOS) order will be issued if, after complete examination of any package, an imminent hazard is indeed found to exist. The OOS order effects the permanent removal of the package from transportation by prohibiting its movement until it has been brought into compliance with all applicable regulatory requirements. An emergency order will be issued when DOT determines that a non-compliant shipment or an unsafe condition or practice is causing an imminent hazard. The PHMSA, FAA, FMCSA, or FRA Administrator may issue an emergency order without advance notice or opportunity for a hearing. The emergency order may impose emergency restrictions, prohibitions, or recalls and may be issued for any type of packaging, not merely those for which package opening is authorized, and for any unsafe condition posing an imminent hazard, not merely unsafe conditions related to packaging.

Regulation of Intrastate Transportation (Section 171.1)

HM-200

On January 8, 1997, RSPA, the predecessor agency to PHMSA, published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials.

Prior to HM-200, the federal regulations had authority over interstate transportation of hazardous materials and intrastate motor carriers of hazardous waste, hazardous substances, marine pollutants, and flammabl cryogenic liquids in portable tanks and cargo tanks.

This change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce throughout the United States.

Criteria were also established for:

- Continued use of non-specificatio packagings in intrastate transportation;
- Exceptions for agricultural operations; and
- Exceptions for transportation of materials of trade.

This rule was effective October 1, 1997, and compliance has been required since October 1, 1998. Therefore, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved from some portion of the regulations by an exception in the HMR.

States may impose requirements in addition to the federal regulations or on topics that are not addressed in the regulations. Refer to the State Requirements tab for more information about Special Requirements.

Materials incorporated by reference (Section 171.7)

Throughout the Hazardous Materials Regulations, there are numerous references to materials which are not included in regulations, but which are made a part of the regulations by an "incorporated by reference" provision.

Example Section 173.198 requires "nickel carbonyl" to be contained in specifi cation steel or nickel cylinders as prescribed for any compressed gas except acetylene. This same section permits a cylinder used exclusively for nickel carbonyl to be given a complete external visual inspection, in place of the interior hydrostatic pressure test required by 49 CFR 180.205. According to the regulations, this inspection "must be in accordance with CGA Pamphlet C-6."

CGA — referring to the Compressed Gas Association — publishes a document titled "Standards for Visual Inspection of Compressed Gas Cylinders," coded as Pamphlet C-6. This pamphlet includes data on inspection equipment, low-pressure cylinder-sexempt from and subject to hydrostatic testing, and high-pressure cylinder inspection. By stating "must be in accordance with," the data contained within Pamphlet C-6 is made part of the regulations.

All matter incorporated by reference is available for inspection at the following locations:

The Office of Hazardous Materials Safety
Office of Hazardous Materials Standards
East Building
PHH-10
1200 New Jersey Avenue, SE
Washington, DC 20590

Office of the Federal Register
Room 8401
1100 L Street NW
Washington, DC

International regulations

Although DOT's Hazardous Materials Regulations are paramount throughout all the jurisdictional territory of the United States, a shipment of hazardous materials in international commerce may also be subject to the regulations of other countries or international-based regulatory bodies. This may be true whether the shipment:

- Originates in the U.S. and is destined for a point outside the U.S.
- Originates outside the U.S. and is destined for a point within the U.S.
- Travels through the U.S. between origin and destination points, both outside the U.S.

This section is designed to familiarize you with the overall recommendations and regulatory implications of the United Nations (UN), International Maritime Organization (IMO), International Civil Aviation Organization (ICAO), International Air Transport Association (IATA), Transport Canada, and the Mexican Department of Communications and Transportation.

UN recommendations

The United Nations' Committee of Experts on the Transport of Dangerous Goods develops recommendations for the transport of all types of dangerous goods, except radioactive materials which are prepared by the International Atomic Energy Agency (IAEA). These recommendations, which are applicable to all modes, are published in the *Recommendations on the Transport of Dangerous Goods*. This publication is often simply referred to as the *UN Recommendations* or the *orange book*.

These recommendations are amended and updated by the Committee of Experts, and distributed to organizations and nations throughout the world. They serve as the basis for international modal regulations — such as IMO's *International Maritime Dangerous Goods Code* and ICAO's *Technical Instructions for the Safe Transport of Dangerous Goods by Air*. They also serve as the basis for Dangerous Goods/ Hazardous Materials Regulations of countries throughout the world, such as the U.S., Canada, and Mexico.

IMDG code

The International Maritime Organization (IMO) publishes a five-volum set of regulations known as the *International Maritime Dangerous Goods Code* or *IMDG Code*. These regulations, which govern the international water transport of dangerous goods/hazardous materials include provisions for classification identification packaging, handling, and stowage. As they are based on the *UN Recommendations,* IMO's requirements are similar to those of other regulatory bodies, such as ICAO and U.S. DOT.

One area in which the *IMDG Code* differs from other UN based regulations is packaging. While the *IMDG Code* also requires the use of performance-oriented packaging, the specifi packaging authorized for a material may differ in an effort to protect it from conditions unique to water transport.

For shipments exported from the U.S. to another country and transported by vessel, it is common practice for the importer to furnish the U.S. shipper with compliance data from the *IMDG Code*. This is not, however, always the case. It is recommended, therefore, that a shipper who ships hazardous materials by vessel in international waters secure a current copy of the *IMDG Code*.

To facilitate international shipments, the U.S. Regulations authorize the use of the IMDG *Technical Instructions* under conditions prescribed in 49 CFR 171 Subpart C. More information on their use for import and export shipments is provided later in this tabbed section.

ICAO technical instructions

The *Technical Instructions for the Safe Transport of Dangerous Goods by Air*, published by the International Civil Aviation Organization (ICAO), are the regulations which govern the international air transport of dangerous goods/hazardous materials. The general requirements under these instructions are that, unless otherwise provided, "...no person may offer or accept dangerous goods for international civiltransport by air unless those goods are properly classified documented, certified described, packaged, marked, labeled and in the condition for shipment required by these Instructions."

As ICAO's *Technical Instructions* are based on the *UN Recommendations*, they are very similar in most respects to the requirements of IMO and U.S. DOT. There are some significan differences, however, to account for conditions unique to air transport. For instance, you may fin that some materials acceptable for domestic transport under U.S. Hazardous Materials Regulations are forbidden from transport under the ICAO *Technical Instructions*. And, depending on the material, you may notice lowered quantity limitations, and stricter packaging requirements.

To facilitate international shipments, the U.S. Regulations authorize the use of the ICAO *Technical Instructions* under conditions prescribed in 49 CFR 171 Subpart C. More information on their use for import and export shipments is provided later in this tabbed section.

IATA dangerous goods regulations

The *Dangerous Goods Regulations*, published by the International Air Transport Association's (IATA's) Dangerous Goods Board, constitute a manual of industry carrier regulations to be followed by all IATA member airlines. While the regulations are based on ICAO's *Technical Instructions*, IATA has included additional requirements which are more restrictive and reflec industry standard practices or operational considerations. IATA has also incorporated supplementary material to assist users in complying with the requirements.

Because of these differences, IATA's *Dangerous Goods Regulations* should not be relied on to achieve compliance with ICAO's *Technical Instructions.* The IATA *Dangerous Goods Regulations* are not recognized by the U.S. and do not have official standing within the U.S. Only the ICAO *Technical Instructions* are authorized for use under conditions prescribed in 49 CFR 171 Subpart C.

Canadian dangerous goods regulations

In Canada, shipments of dangerous goods must be prepared and transported in accordance with Transport Canada's "Clear Language TDG Regulations." The regulations apply to all modes of transport, as well as to all who are involved in the handling and transport of dangerous goods — including carriers, shippers, and receivers. In instances where the provinces have jurisdiction over transportation, acts and regulations that parallel those of the federal government have been implemented so that the requirements are the same throughout Canada.

Most shipments by rail or highway which conform to the Transportation of Dangerous Goods Regulations may be transported from Canada into the United States, or may transit the United States to a Canadian or foreign destination. Reciprocal provisions are provided for exports from the United States and appear in the Canadian regulations.

Example A hazardous material that will be exported from the United States to a destination in Canada may be packaged in U.S. specificatio or UN standard packaging, as authorized by the U.S. regulations, even though the Canadian regulations require packagings to comply with specifi Canadian Safety Standards.

There are some significan differences, however, which are not covered by the reciprocal agreement between the two countries.

Refer to the Clear Language TDG Regulations and 49 CFR 171 Subparts A & C for more detailed information.

Mexican Hazardous Materials Regulations

The Mexican Hazardous Materials Regulations, issued by the Mexican Department of Communications and Transportation, address only the surface transportation of hazardous materials (i.e., rail and highway). While they do not contain the same level of detail, many of the requirements parallel those of the U.S. Regulations.

For instance, the regulations establish a classificatio system which is based on nine hazard classes and their respective divisions. The regulations also contain a list of hazardous materials and wastes most commonly transported. This list includes class designations, risk divisions, identificatio numbers, and special provisions to which transportation, container method, and packaging must conform.

Shipments of hazardous materials under the Mexican regulations must be identifie with a red and white “Material Peligrosa” (hazardous materials) placard, along with UN placards that identify the material being transported. Shipments are also required to be accompanied by properly completed documentation and an emergency response form that includes two emergency phone numbers - one for the carrier, the other for the manufacturer. In addition, all owners of units that transport hazardous materials via highway are required to register with the Director General of Transportation.

Unlike the U.S. Hazardous Materials Regulations, the Mexican regulations contain provisions for motor carrier safety. Among those included are requirements for insurance, pre-trip inspections, special licensing, and hours of service.

Reserved

Import/Export Shipments (49 CFR 171 Subpart C)

In the final rule HM-215F, PHMSA amended the HMR to revise, consolidate, and clarify the HMR provisions authorizing the use of the ICAO Technical Instructions, the IMDG Code, the Transport Canada TDG Regulations, and the IAEA Regulations, as previously contained in 49 CFR 171.11, 171.12, and 171.12a. Review 49 CFR 171 Subpart C - Authorization and Requirements for the Use of International Transport Standards and Regulations.

The newly designated subpart, as adopted in the final rule, will continue to permit both domestic and international shipments of hazardous materials to be offered for transportation and transported under the provisions of the applicable transport standards and regulations, subject to certain conditions and limitations.

Use of ICAO Technical Instructions (Section 171.24)

Although intended primarily for international transport, a hazardous material may be transported by aircraft and by motor vehicle (either before or after being transported by aircraft) in accordance with ICAO's *Technical Instructions* if the material:

- All applicable requirements in Parts 171 and 175 of the Hazardous Materials Regulations (HMR) (also see 14 CFR 121.135, 121.401, 121.433a, 135.323, 135.327 and 135.333).
- The quantity limits prescribed in the *ICAO Technical Instructions* for transportation by passenger-carrying or cargo aircraft, as applicable.
- The conditions or requirements of a United States variation, when specified in the *ICAO Technical Instructions*.
- For transportation by highway prior to or after transportation by aircraft, a shipment must conform to the applicable requirements of Part 177 of the HMR, and the motor vehicle must be placarded in accordance with Subpart F of Part 172.

Use of IMDG Code (Section 171.25)

Any person who offers for transportation or transports a hazardous material in accordance with the *IMDG Code* must conform to the following additional conditions and requirements:

- Unless otherwise excepted, a shipment must conform to the requirements in Part 176 of the HMR. For transportation by rail or highway prior to or subsequent to transportation by vessel, a shipment must conform to the applicable requirements of Parts 174 and 177 respectively, and the motor vehicle or rail car must be placarded in accordance with Subpart F of Part 172. When a hazardous material regulated for transportation by highway is transported by motor vehicle on a public highway under the provisions of the HMR, the segregation requirements of Part 7, Chapter 2 of the *IMDG Code* are authorized.

- The stowage and segregation requirements in Part 7 of the *IMDG Code* may be substituted for the stowage and segregation requirements in Part 176 of the HMR.

National Registration Program (Part 107, Subpart G)

In 1992, a national registration program and annual fee-collection system for a person offering for transport, and transporting, certain hazardous materials was established. The annual fee funds a nation-wide emergency response training and planning grant program for states, Indian tribes, and local communities. No person required to file a registration statement may transport hazardous materials, or cause them to be transported, without a current Certificate of Registration on file.

In 2000, a final rule (HM-208C) was issued, which changed the hazmat and registration fee program. Registration is now required for each person that offers or transports **any shipment of hazardous materials that requires placarding.** The final rule was intended to increase funding for the Hazardous Materials Emergency Preparedness (HMEP) grants program.

On January 9, 2003, a final rule (HM-208D) was published, reducing the registration fees, beginning with registration year 2003-2004. The final rule also establishes a separate fee category for not-for-profit organizations.

HM-208F, issued May 3, 2007, eliminated the 24-hour, seven-days-per-week telephonic expedited registration option because it is no longer necessary now that there is an internet option. In addition, an explicit exception from registration requirements was adopted for Indian Tribes. Registration fees were not changed in the final rule.

HM-208H, published as a final rule March 30, 2010, increased registration fees for registrants not qualifying as a small business or not-for-profit organization. PHMSA increased the annual fee from $975 (plus a $25 administrative fee) to $2,575 (plus a $25 administrative fee) for registration year 2010-2011 and following years.

Applicability

The program's registration and fee requirements apply to any person who offers for transportation or transports — in foreign, interstate, or intrastate commerce — any of the following:

- Any highway route-controlled quantity of a Class 7 (radioactive) material.
- More than 25 kg (55 lbs) of a Division 1.1, 1.2, or 1.3 (explosive) material in a motor vehicle, railcar, or freight container.
- More than 1 L (1.06 qts) per package of a material extremely toxic by inhalation (i.e., "material poisonous by inhalation," as defined in §171.8, that meets the criteria for "hazard zone A," as specified in §§173.116(a) or 173.133(a)).
- A hazardous material in a bulk packaging having a capacity equal to or greater than 13,248 L (3,500 gals) for liquids or gases, or more than 13.24 m^3 (468 ft^3) for solids.
- A shipment (offered or loaded at one loading facility using one transport vehicle)

in other than a bulk packaging of 2,268 kg (5,000 lbs) gross weight or more of one class of hazardous materials for which placarding is required.

- Any shipment of hazardous materials that requires placarding.

Exceptions

Exceptions from the registration and fee requirements are provided in Section 107.606 for the following:

- An agency of the federal government.
- A state agency.
- An agency of a political subdivision of a state.
- An employee of any of the above agencies.
- A hazmat employee — including the owner/operator of a motor vehicle which transports hazardous materials and is leased to a registered motor carrier under a 30-day or longer lease (or an equivalent contractual relationship).
- A person domiciled outside the U.S., who offers solely from locations outside the U.S., hazardous materials for transportation in commerce, provided the country in which the person is domiciled does not require U.S. persons to register or pay a fee.

Registration and Fee Requirements

Each person subject to the program must submit a complete and accurate "Hazardous Materials Registration Statement" on DOT Form F 5800.2 (shown on the following pages) and the required fee by June 30 of each year. A Certificate of Registration will then be issued.

You may now register for one, two, or three registration years by completing a single registration statement and paying the appropriate fees. Discounts are available for multiple year registrations. A single Certificate of Registration with a Registration Number good for one, two, or three years will be issued for each statement.

The annual registration fee is $250 plus a $25 processing fee for each person meeting the Small Business Administration's (SBA) criteria for a small business and for not-for-profit organizations, and $2,575 plus a $25 processing fee for each person that does not meet those criteria. Questions about SBA size criteria can be answered by calling the SBA Office of Size Standards at (202) 205-6618.

Internet registration

You may obtain a registration number promptly over the internet. The DOT-recommended process will enable you to print your Certificate of Registration with the new registration number after credit card payment is verified. A copy of the certificate will be mailed to you, as well.

Registration methods

You may register by using one of the following methods:

- Complete form DOT F 5800.2 and mail it with payment of the appropriate fee to the address given on the form. Submit your registration at least four weeks in advance of the date you will need the registration certificate in order to allow sufficient time for the registration to be processed and the certificate produced and mailed to you.
- Register on the internet at http://hazmat.dot.gov.register.htm.

Questions on the registration program and its requirements can be answered by calling (202) 366-4109.

Recordkeeping

Each person subject to the program must maintain the following at his or her principal place of business for three (3) years from the date of the certificate's issuance:

- A copy of the registration statement filed with PHMSA, and
- The Certificate of Registration issued by PHMSA.

Motor carriers and persons who transport hazardous materials by vessel that are subject to the registration requirements must carry on board each vehicle or vessel that is transporting a hazardous material requiring registration:

- A copy of their current Certificate of Registration, or
- Another document bearing the registration number, identified as the "U.S. DOT Hazmat Reg. No."

Registration Form (DOT F 5800.2)

Page 1 of 2 Exempted from Paperwork Reduction Act by 49 U.S.C. 5108(i)

U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration

Hazardous Materials Registration Statement

(Please type or print all responses)

1. Type of Registration

☐ Initial Registration ☐ Renewal of Registration ☐ Amendment to Registration

Current Registration # ☐☐☐☐☐☐☐☐☐☐☐☐☐☐

2. Registrant _____
(Company Name)

3. Mailing Address of Principal Place of Business **Physical Address** (if different)

Street_____ Street_____

City_____ County_____ City_____ County_____

State_____ Zip Code_____ Country_____ State_____ Zip Code_____ Country_____

4. Registrant's USDOT Number, MC/MX Number, or Railroad Alphabetic Code (if applicable)

USDOT#_____ MC/MX #_____Railroad Alphabetic Code _____

5. Mode(s) Used to Transport Hazardous Materials ☐ Highway ☐ Rail ☐ Water ☐ Air

6. Business Category (determined by answering a through c below)

a) North American Industry Classification System (NAICS) Code for Primary Business Activity ☐☐☐☐☐☐

b) Using SBA size standard for the NAICS Code entered above (mark one)

☐ Small Business as defined by SBA ☐ Not a SBA Small Business

c) Not-for-Profit Organization under 26 U.S.C. 501(a) ☐ Yes ☐ No

7. Registration Period **From July 1, 20_____, To June 30, 20_____**

8. Registration Fees

See Table of Fees on page 7. All fees include the appropriate processing fee.

Total Amount Due for this Registration_____

Make check or money order in U.S. funds, drawn on a U.S. bank, and payable to "U.S. Department of Transportation," and identified as payment of the "Hazmat Registration Fee."

Method of Payment (check one)

For debit card payments, see "Payment Options," page 4.

☐ Check ☐ Money Order ☐ Visa ☐ MasterCard ☐ American Express ☐ Discover

Credit/Debit Card Users Please Provide the Following Information

Card Number ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐ Expiration Date ☐☐ ☐☐
MO YR

Name as it appears on the card_____

Authorized Signature_____

Card statement will list payment as "US DOT Hazmat Regis."

Form DOT F 5800.2 (Revised 3/08) Supercedes all previous versions. THIS FORM MAY BE REPRODUCED.

 Exempted from Paperwork Reduction Act by 49 U.S.C. 5108(i)

9. Prior-Year Survey Information. Mark all categories and activities engaged in during the previous calendar year (e.g., 2008 for the 2009-2010 Registration Year) and the state(s) in which you operated (see instructions).

Category	Activity Offered or transported in commerce;	Mark all that apply "X"		
		Shipper	Carrier	Other (Freight Forwarder, Agent, etc.)
A ☐	a highway route controlled quantity of a Class 7 (radioactive) material.			
B ☐	more than 25 kilograms (55 pounds) of a Division 1.1, 1.2, or 1.3 (explosive) material in a motor vehicle, rail car, or freight container.			
C ☐	more than 1 liter (1.06 quarts) per package of a material extremely toxic by inhalation (materials poisonous by inhalation that meet one of the defining criteria for Hazard Zone A).			
D ☐	a hazardous material (including hazardous wastes) in a bulk packaging (see 49 CFR 171.8) having a capacity equal to or greater than 13,248 liters (3,500 gallons) for liquids or gases or more than 13.24 cubic meters (468 cubic feet) for solids.			
E ☐	a shipment, in other than a bulk packaging, of 2,268 kilograms (5,000 pounds) gross weight or more of one class of hazardous material (including hazardous wastes) for which placarding of a vehicle, rail car, or freight container is required.			
F ☐	a shipment of a quantity of hazardous material (including hazardous wastes) that requires placarding of the bulk packaging, freight container, unit load device, transport vehicle, or rail car, other than those included in A through E above. Activities performed by farmers are generally excepted. See 49 CFR 107.601(b)			

☐ G ☐ Did not engage in any of the activities listed in A through F during the previous calendar year.

Select States in which any of the above were engaged in during the past calendar year (see instructions).

AL	AR	AZ	CA	CO	CT	DE	FL	GA	ID	IL	IN	IA	KS	KY	LA	MA	MD	ME	MI	MN
MO	MS	MT	NC	ND	NE	NH	NJ	NM	NV	NY	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT
	VT	VA	WA	WV	WI	WY	48 Contiguous States					AK	AS	DC	GU	HI	MP	PR	VI	

10. Certification of Information. I certify that, to the best of my knowledge, the above information is true, accurate, and complete.

Certifier's Name _____ Phone (_____) _____ - _____
(Print clearly)

E-mail _____

Certifier's Signature _____ Date _____

FALSE STATEMENTS MAY VIOLATE FEDERAL LAW (18 U.S.C. 1001).

MAIL COMPLETED FORM WITH PAYMENT TO:	U.S. Department of Transportation Hazardous Materials Registration PO Box 70985 Charlotte, NC 28272-0985

Please retain a copy of this form for your records.

Notice to Customers Making Payment by Check

If you send us a check, it will be converted into an electronic funds transfer (EFT). This means we will copy your check and use the account information on it to electronically debit your account for the amount of the check. The debit from your account will usually occur within 24 hours, and will be shown on your regular account statement.

You will not receive your original check back. We will destroy your original check, but we will keep the copy of it. If the EFT cannot be processed for technical reasons, you authorize us to process the copy in place of your original check. If the EFT cannot be completed because of insufficient funds, we may try to make the transfer up to 2 times.

Registration Fee Table

As Amended by the Final Rule of January 9, 2003

The current registration fees were established in a Final Rule published in the Federal Register on January 9, 2003. This rule established one set of fees for registration years 2003-2004 through 2005-2006, and a second set of fees for 2006-2007 and following. The previously established fees for registration years between 1992-1993 and 2002-2003 were not altered.

One, two, or three year periods of registration are permitted for years beginning July 1, 2000, and later. The fees for all possible registration periods and business types are listed in the table below. All fees include the appropriate processing fee. If you are a not-for-profit organization registering for 2001-2004, 2002-2004 or 2002-2005, you must pay the fee in the column titled "Small Business/Non-Profit" if you meet the SBA size standard for a small business, and the fee in the column titled "Not-Small Business/Non-Profit" if you do not meet that standard.

Registration Period	Business Categories				
	Small Business	All Non-Profit	Small Business Non-Profit	Not-Small Business	Not-Small Business Non-Profit
2009-2010 (1 year)	$275	$275	-	$1,000	-
2009-2011 (2 years)	$525	$525	-	$1,975	-
2009-2012 (3 years)	$775	$775	-	$2,950	-
2008-2009 (1 year)	$275	$275	-	$1,000	-
2008-2010 (2 years)	$525	$525	-	$1,975	-
2008-2011 (3 years)	$775	$775	-	$2,950	-
2007-2008 (1 year)	$275	$275	-	$1,000	-
2007-2009 (2 years)	$525	$525	-	$1,975	-
2007-2010 (3 years)	$775	$775	-	$2,950	-
2006-2007 (1 year)	$275	$275	-	$1,000	-
2006-2008 (2 years)	$525	$525	-	$1,975	-
2006-2009 (3 years)	$775	$775	-	$2,950	-
2005-2006 (1 year)	$150	$150	-	$300	-
2005-2007 (2 years)	$400	$400	-	$1,275	-
2005-2008 (3 years)	$650	$650	-	$2,250	-
2004-2005 (1 year)	$150	$150	-	$300	-
2004-2006 (2 years)	$275	$275	-	$575	-
2004-2007 (3 years)	$525	$525	-	$1,550	-
2003-2004 (1year)	$150	$150	-	$300	-
2003-2005 (2 years)	$275	$275	-	$575	-
2003-2006 (3 years)	$400	$400	-	$850	-
2002-2003 (1year)	$300	-	-	$2,000	-
2002-2004 (2years)	$425	-	$425	$2,275	$2,125
2002-2005 (3 years)	$550	-	$550	$2,550	$2,250
2001-2002 (1 year)	$300	-	-	$2,000	-
2001-2003 (2 years)	$575	-	-	$3,975	-
2001-2004 (3 years)	$700	-	$700	$4,250	$4,100
2000-2001 (1 year)	$300	-	-	$2,000	-
2000-2002 (2 years)	$575	-	-	$3,975	-
2000-2003 (3 years)	$850	-	-	$5,950	-
1992-1993 through1999-2000 the annual fee is $300 for all registrants.					

Reserved

TABLE OF CONTENTS

CLASSIFICATION

Overview

Before a material can be offered for transportation, the shipper must determine whether or not it is a hazardous material. This determination involves referring to the hazard class definitions, and in some instances, the Precedence of Hazard Table. Once the appropriate hazard class (or classes) have been determined, the shipper must use the Hazardous Materials Table and its two appendixes to locate the applicable shipping information — such as the material's proper shipping name, appropriate labels, special packaging requirements, etc.

This section of the manual will familiarize you with the various definitions, tables, and lists that are needed to classify a material. Keep in mind that the regulations are very detailed and are likely to include specific exceptions and/or requirements for a given hazardous material. To guarantee compliance, you must always reference the applicable sections of the regulations.

Hazardous Materials: Definitions (Parts 171 & 173)

The regulations define a hazardous material as a material which is "capable of posing an unreasonable risk to health, safety, and property when transported in commerce." A material is considered "hazardous" if it meets one or more of the hazard class definitions, and/or is a hazardous substance, hazardous waste, marine pollutant, or elevated-temperature material.

There are nine hazard classes established by the Hazardous Materials Regulations — some of which are further subdivided into divisions. There is also a category of hazardous materials known as "Other Regulated Material" or "ORM–D."

The definitions summarized below should be used as guidelines only. Complete specifications for each class and division can be found in Part 173 of the regulations.

Class 1 (Explosive) Materials

A "Class 1 material" is any substance or article — including a device — which is designed to function by explosion, or which — by chemical reaction within itself —is able to function in a similar manner even if not designed to function by explosion, unless the substance or article is otherwise classed. Class 1 is subdivided into six divisions:

Division 1.1

Explosives that have a mass explosion hazard. A mass explosion is one which affects almost the entire load instantaneously.

Division 1.2

Explosives that have a projection hazard, but not a mass explosion hazard.

Division 1.3

Explosives that have a fire hazard and either a minor blast hazard, a minor projection hazard, or both — but not a mass explosion hazard.

Division 1.4

Explosives that present a minor explosion hazard. The explosive effects are largely confined to the package, and no projection of fragments of appreciable size or range is to be expected. An external fire must not cause virtually instantaneous explosion of almost the entire contents of the package.

Division 1.5

Insensitive explosives which have a mass explosion hazard, but are so insensitive that there is very little probability of initiation, or of transition from burning to detonation, under normal conditions of transport.

Division 1.6

Extremely insensitive explosives which do not have a mass explosion hazard. This division is comprised of articles which contain only extremely insensitive detonating substances and which demonstrate a negligible probability of accidental initiation or propagation.

Class 2 (Gas) Materials

A "Class 2 material" is any material which falls into one of the following three divisions:

Division 2.1 (flammable gas) material

Any material which is a gas at 20°C (68°F) or less and 101.3 kPa (14.7 psi) of pressure, which:

- Is ignitable at 101.3 kPa (14.7 psi) when in a mixture of 13 percent or less by volume with air, or
- Has a flammable range at 101.3 kPa (14.7 psi) with air of at least 12 percent, regardless of the lower limit.

Division 2.2 (non-flammable, nonpoisonous compressed gas—including compressed gas, liquefied gas, pressurized cryogenic gas, compressed gas in solution, asphyxiant gas and oxidizing gas) material

A non-flammable, nonpoisonous compressed gas (Division 2.2) means any material (or mixture) that:

- Exerts in the packaging a gauge pressure of 200 kPa (25.9 psig/43.8 psia) or greater at 20°C (68°F), and

- Is a liquefied gas or cryogenic liquid and does not meet the definition of Division 2.1 or 2.3.

Division 2.3 (gas poisonous by inhalation) material

Any material or mixture which is a gas at 20°C (68°F) or less and a pressure of 101.3 kPa (14.7 psi) and that:

- Is known to be so toxic to humans as to pose a hazard to health during transportation, or
- In the absence of adequate data on human toxicity, is presumed to be toxic to humans because when tested on laboratory animals it has an LC_{50} value of not more than 5000 ml/m^3(see 49 CFR 173.116(a) for assignment of Hazard Zones A, B, C or D). LC_{50} values for mixtures may be determined using the formula in 49 CFR 173.133(b)(1)(i) or CGA P–20.

Class 3 (Flammable Liquid) Materials

A Class 3 material is any liquid having a flash point of not more than 60°C (140°F), or any material in a liquid phase with a flash point at or above 37.8°C (100°F) that is intentionally heated and offered for transportation or transported at or above its flash point in a bulk packaging with the following exceptions:

- Any liquid meeting one of the definitions specified in 49 CFR 173.115.
- Any mixture having one or more components with a flash point of 60°C (140°F) or higher that makes up at least 99 percent of the total volume of the mixture, if the mixture is not offered for transportation or transported at or above its flash point.
- Any liquid with a flash point greater than 35°C (95°F) that does not sustain combustion.
- Any liquid with a flash point greater than 35°C (95°F) and with a fire point greater than 100°C (212°F) according to ISO 2592.
- Any liquid with a flash point greater than 35°C (95°F) that is in a water-miscible solution with a water content of more than 90 percent by mass.

A combustible liquid is any liquid that does not meet the definition of any other hazard class and has a flash point above 60°C (140°F) and below 93°C (200°F). A flammable liquid with a flash point at or above 38°C (100°F) that does not meet the definition of any other hazard class may be reclassed as a combustible liquid. An elevated temperature material that meets the definition of a Class 3 material because it is heated at or above its flashpoint may not be reclassed as a combustible liquid.

Class 4 (Flammable Solid) Materials

A “Class 4 material” is any material which falls into one of the following three divisions:

Division 4.1 (flammable solid) material

Any material of the following three types:

- Desensitized explosives that, when dry, are explosives of Class 1 — other than those of compatibility group A — which when wetted suppress the explosive properties, and materials specifically authorized by name in the Hazardous Materials Table or have been assigned a shipping name and hazard class by the Associate Administrator for Hazardous Materials Safety.
- Self-reactive materials that are thermally unstable and that can undergo a strongly exothermal decomposition even without oxygen (air).
- Readily combustible solids that may cause a fire through friction, show a burning rate faster than 2.2 mm (0.087 inch) per second under specified test procedures, or any metal powders that can be ignited and react over the whole length of a sample in 10 minutes or less under specified test procedures.

Division 4.2 (spontaneously combustible) material

Any material of the following two types:

- A pyrophoric material that — even in small quantities and without an external ignition source — can ignite within 5 minutes after coming in contact with air under specified test procedures.
- A self-heating material that — when in contact with air and without an energy supply — is liable to self-heat and which exhibits spontaneous ignition or if the temperature of the sample exceeds 200°C (392°F) under specified test procedures.

Division 4.3 (dangerous when wet) material

A material which by contact with water:

- Is liable to become spontaneously flammable.
- Gives off flammable or toxic gas at a rate greater than 1 liter per kilogram of material, per hour, under specified test procedures.

Class 5 (Oxidizing & Organic Peroxide) Materials

A “Class 5 material” is any material which falls into one of the following two divisions:

Division 5.1 (oxidizing) material

A material that may, generally by yielding oxygen, cause or enhance the combustion of other materials.

Division 5.2 (organic peroxide) material

Any organic compound containing oxygen (O) in the bivalent -O-O- structure and which may be considered a derivative of hydrogen peroxide, where one or more of the hydrogen atoms have been replaced by organic radicals, with some exceptions.

Class 6 (Poisonous) Materials

A "Class 6 material" is any material which falls into one of the following two divisions:

Division 6.1 (poisonous) material

A material, other than a gas, which is known to be so toxic to humans as to afford a hazard to health during transportation, or which, in the absence of adequate data on human toxicity:

- Is presumed to be toxic to humans because it falls within specified oral, dermal, or inhalation toxicity ranges when tested on laboratory animals.
- Is an irritating material, with properties similar to tear gas, which cause extreme irritation — especially in confined spaces.

Division 6.2 (infectious substance) material

A material known or reasonably expected to contain a pathogen. A pathogen is a microorganism (including bacteria, viruses, rickettsiae, parasites, fungi) or other agent, such as a proteinaceous infectious particle (prion), that can cause disease in humans or animals. Infectious substance and etiologic agent are synonymous.

Class 7 (Radioactive) Materials

Any material containing radionuclides where both the activity concentration and the total activity in the consignment exceed the values specified in the table in §173.436 or values derived according to the instructions in §173.433.

Class 8 (Corrosive) Materials

A "Class 8 material" is:

- A liquid or solid that causes full thickness destruction of human skin at the site of contact within a specified period of time.
- A liquid that has a severe corrosion rate on steel or aluminum based on the criteria in 49 CFR 173.137(c)(2).

Class 9 (Miscellaneous) Materials

A "Class 9 material" is a material which presents a hazard during transportation, but which does not meet the definition of any other hazard class. This includes:

- Any material which has an anesthetic, noxious, or other similar property which could cause extreme annoyance or discomfort to a member of a flight crew so as to prevent the correct performance of assigned duties; or
- Any material that meets the definition in 49 CFR 171.8 for an elevated temperature material, a hazardous substance, a hazardous waste, or a marine pollutant.

Other Regulated Materials (ORM-D)

An "ORM-D material" is a material, such as a consumer commodity, which although otherwise subject to the regulations, presents a limited hazard during transportation due to its form, quantity, and packaging. It must be a material for which exceptions are provided in the Hazardous Materials Table.

Hazardous Substances

A "hazardous substance" is a material, including its mixtures and solutions, that:

- Is listed in Appendix A to the Hazardous Materials Table, and
- Is in a quantity, in one package, which equals or exceeds the reportable quantity (RQ) listed in Appendix A, and
- When in a mixture or solution:

For radionuclides, conforms to the following paragraph:

> For mixtures of radionuclides, the following requirements shall be used in determining if a package contains an RQ of a hazardous substance: (i) if the identity and quantity (in curies or terabecquerels) of each radionuclide in a mixture or solution is known, the ratio between the quantity per package (in curies or terabecquerels) and the RQ for the radionuclide must be determined for each radionuclide. A package contains an RQ of a hazardous substance when the sum of the ratios for the radionuclides in the mixture or solution is equal to or greater than one; (ii) if the identity of each radionuclide in a mixture or solution is known but the quantity per package (in curies or terabecquerels) of one or more of the radionuclides is unknown, an RQ of a hazardous substance is present in a

package when the total quantity (in curies or terabecquerels) of the mixture or solution is equal to or greater than the lowest RQ of any individual radionuclide in the mixture or solution; and (iii) if the identity of one or more radionuclides in a mixture or solution is unknown (or if the identity of a radionuclide by itself is unknown), an RQ of a hazardous substance is present when the total quantity (in curies or terabecquerels) in a package is equal to or greater than either one curie or the lowest RQ of any known individual radionuclide in the mixture or solution, whichever is lower.

For other than radionuclides, is in a concentration by weight which equals or exceeds the concentration of the material — as shown in the following table:

RQ Pounds (Kilograms)	Concentration by Weight	
	Percent	PPM
5000 (2270)	10	100,000
1000 (454)	2	20,000
100 (45.4)	0.2	2,000
10 (4.54)	0.02	200
1 (0.45)	0.002	20

Hazardous Wastes

A “hazardous waste” is any material that is subject to the hazardous waste manifest requirements of the U.S. Environmental Protection Agency (EPA), as specifie in 40 CFR Part 262.

Marine Pollutants

A “marine pollutant” is a hazardous material that is listed in Appendix B to the Hazardous Materials Table, and when in a solution or mixture of one or more marine pollutants, is packaged in a concentration which equals or exceeds:

- Ten percent by weight of the solution or mixture, for materials listed in Appendix B, or
- One percent by weight of the solution or mixture, for materials identifie as severe marine pollutants (PP) in Appendix B.

Elevated Temperature Materials

An “elevated temperature material” is a material which, when offered for transportation or transported in a bulk packaging:

- Is in a liquid phase and at a temperature at or above 100ºC (212ºF),
- Is in a liquid phase with a flas point at or above 38ºC (100ºF) that is intentionally heated and offered for transportation or transported at or above its flas point, or
- Is in a solid phase and at a temperature at or above 240ºC (464ºF).

Reserved

Packing Groups (Part 173)

Packing groups are used to indicate the degree of danger that a hazardous material presents during transport.

- Packing Group I indicates great danger.
- Packing Group II indicates medium danger.
- Packing Group III indicates minor danger.

Because packing groups impact the type of packaging that can be used, it is critical that each material is assigned to the correct one.

Example A flammabl liquid in Packing Group I is subject to stricter packaging requirements than a flammabl liquid in Packing Group II or III because its low initial boiling point presents a greater hazard during transport.

Packing group	Flash point (closed-cup)	Initial boiling point
I		≤35ºC (95ºF)
II	<23ºC (73ºF)	>35ºC (95ºF)
III	≥23ºC, ≤60ºC (≥73ºF, ≤140ºF)	>35ºC (95ºF)

Packing Group Determination

Packing groups are used for all hazardous materials, other than Class 2 and 7 materials and ORM-D materials. The criteria for determining packing groups are included in the regulations as follows:

- Section 173.121 — Class 3 (flammabl liquid) materials
- Section 173.125 — Class 4 (flammabl solid) materials
- Section 173.127 — Division 5.1 (oxidizing) materials
- Section 173.129 — Division 5.2 (organic peroxide) materials
- Section 173.133 — Division 6.1 (poisonous) materials
- Section 173.137 — Class 8 (corrosive) materials
- Section 173.141 — Class 9 (miscellaneous) materials

These criteria should be referenced:

- Any time more than one packing group is listed for a material in Column 5 of the Hazardous Materials Table.
- Any time a material meets the definitio of more than one hazard class or division and is not specificall listed in the Hazardous Materials Table.

Hazard Precedence (Section 173.2a)

When a hazardous material meets the definitio of more than one hazard class, and is not specificall listed in the Hazardous Materials Table, it is necessary to determine which of the classes takes "precedence" — or in other words, which of the classes poses the greatest hazard during transport. This determination will impact your selection of the material's proper shipping name — and ultimately, how the material is identifie on the required shipping papers, packaged, marked, labeled, and placarded.

Precedence List

According to the regulations, hazardous materials must be classed "according to the highest applicable hazard class." To assist you with this determination, the regulations — list the hazard classes in descending order of hazard.

1. Class 7 (radioactive) materials, other than limited quantities
2. Division 2.3 (poisonous gas) materials
3. Division 2.1 (flammabl gas) materials
4. Division 2.2 (non-flammabl gas) materials
5. Division 6.1 (poisonous liquid) materials, Packing Group I, poisonous-by-inhalation only
6. Division 4.2 (pyrophoric) materials
7. Division 4.1 (self-reactive) materials
8. Class 3 (flammabl liquid) materials

Class 8 (corrosive) materials

Division 4.1 (flammabl solid) materials

Division 4.2 (spontaneously combustible) materials

Division 4.3 (dangerous when wet) materials

Division 5.1 (oxidizing) materials

Division 6.1 (poisonous liquid or solid) materials other than Packing Group I, poisonous-by-inhalation

> **Note:** The hazard class and packing group for a material meeting more than one of these hazards must be determined using the Precedence of Hazard Table.

(9) Combustible liquids

(10) Class 9 (miscellaneous) materials

Example: If a material meets the definition of a Class 8 (corrosive) material and a Division 6.1 (poisonous liquid) material, Packing Group I, poisonous-by-inhalation only, Division 6.1 would take precedence because it is listed higher on the list.

Materials Not Included in the Precedence List

Because of their unique properties, the following materials are not included in the Precedence List. They are addressed individually in Section 173.2a(c):

- Class 1 (explosive) materials
- Division 5.2 (organic peroxide) materials
- Division 6.2 (infectious substance) materials
- Division 4.1 (wetted explosive) materials
- Limited quantities of a Class 7 (radioactive) materials

Precedence of Hazard Table

The "Precedence of Hazard Table" is used any time a material meets more than one of the hazards listed in number eight (8) of the Precedence List.

PRECEDENCE OF HAZARD TABLE
[Hazard class or division and packing group]

	4.2	4.3	5.1 I[1]	5.1 II[1]	5.1 III[1]	6.1, I dermal	6.1, I oral	6.1, II	6.1 III	8, I liquid	8, I solid	8, II liquid	8, II solid	8, III liquid	8, III solid
3 I[2]	...	4.3	....	....	....	3	3	3	3	3	([3])	3	([3])	3	([3])
3 II[2]	...	4.3	....	....	....	3	3	3	3	8	([3])	3	([3])	3	([3])
3 III[2]	...	4.3	....	....	....	6.1	6.1	6.1	3[4]	8	([3])	8	([3])	3	([3])
4.1 II[2]	4.2	4.3	5.1	4.1	4.1	6.1	6.1	4.1	4.1	([3])	8	([3])	4.1	([3])	4.1
4.1 III[2]	4.2	4.3	5.1	4.1	4.1	6.1	6.1	6.1	4.1	([3])	8	([3])	8	([3])	4.1
4.2 II	...	4.3	5.1	4.2	4.2	6.1	6.1	4.2	4.2	8	8	4.2	4.2	4.2	4.2
4.2 III	...	4.3	5.1	5.1	4.2	6.1	6.1	6.1	4.2	8	8	8	8	4.2	4.2
4.3 I	...	...	5.1	4.3	4.3	6.1	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
4.3 II	...	...	5.1	4.3	4.3	6.1	4.3	4.3	4.3	8	8	4.3	4.3	4.3	4.3

PRECEDENCE OF HAZARD TABLE
[Hazard class or division and packing group], Continued

	4.2	4.3	5.1 I[1]	5.1 II[1]	5.1 III[1]	6.1, I dermal	6.1, I oral	6.1, II	6.1 III	8, I liquid	8, I solid	8, II liquid	8, II solid	8, III liquid	8, III solid
4.3 III	. . .	. . .	5.1	5.1	4.3	6.1	6.1	6.1	4.3	8	8	8	8	4.3	4.3
5.1 I[1]	. . .	. . .	. . . .	. . . .	. . . .	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
5.1 II[1]	. . .	. . .	. . . .	. . . .	. . . .	6.1	5.1	5.1	5.1	8	8	5.1	5.1	5.1	5.1
5.1 III[1]	. . .	. . .	. . . .	. . . .	. . . .	6.1	6.1	6.1	5.1	8	8	8	8	5.1	5.1
6.1 I, Dermal	. . .	. . .	. . . .	. . . .	. . . .	. . . . .	. . . .	. . .	. . .	8	6.1	6.1	6.1	6.1	6.1
6.1 I, Oral	. . .	. . .	. . . .	. . . .	. . . .	. . . . .	. . . .	. . .	. . .	8	6.1	6.1	6.1	6.1	6.1
6.1 II, Inhalation	. . .	. . .	. . . .	. . . .	. . . .	. . . . .	. . . .	. . .	. . .	8	6.1	6.1	6.1	6.1	6.1
6.1 II, Dermal	. . .	. . .	. . . .	. . . .	. . . .	. . . . .	. . . .	. . .	. . .	8	6.1	8	6.1	6.1	6.1
6.1 II, Oral	. . .	. . .	. . . .	. . . .	. . . .	. . . . .	. . . .	. . .	. . .	8	8	8	6.1	6.1	6.1
6.1 III	. . .	. . .	. . . .	. . . .	. . . .	. . . . .	. . . .	. . .	. . .	8	8	8	8	8	8

[1]See §173.127.
[2]Materials of Division 4.1 other than self-reactive substances and solid desensitized explosives, and materials of Class 3 other than liquid desensitized explosives.
[3]Denotes an impossible combination.
[4]For pesticides only, where a material has the hazards of Class 3, Packing Group III, and Division 6.1, Packing Group III, the primary hazard is Division 6.1, Packing Group III.
Note 1: The most stringent packing group assigned to a hazard of the material takes precedence over other packing groups; for example, a material meeting Class 3 PG II and Division 6.1 PG I (oral toxicity) is classified as Class 3 PG I.
Note 2: A material which meets the definition of Class 8 and has an inhalation toxicity by dusts and mists which meets criteria for Packing Group I specified in §173.133(a)(1) must be classed as Division 6.1 if the oral or dermal toxicity meets criteria for Packing Group I or II. If the oral or dermal toxicity meets criteria for Packing Group III or less, the material must be classed as Class 8.

To use this table:

(1) Locate the applicable hazard classes, along with their respective packing groups — one in the vertical column, the other in the horizontal row.

(2) Follow each to the location where they intersect.

(3) The hazard class or division number listed at the intersection is the one that takes precedence.

Example: If a mixture presents a Class 3, PG II hazard and a Class 8, PG II liquid hazard, Class 3 would take precedence because it is the number listed at the intersection of 3, II and 8, II liquid.

Hazardous Materials Table (Section 172.101)

The Hazardous Materials Table is a comprehensive list of materials which have been identified as hazardous. It provides the majority of information you will need to properly prepare hazardous materials for transport.

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions (§172.102)	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Chloroacetyl chloride	6.1	UN1752	I	6.1, 8	2, B3, B8, B9, B14, B32, B74, B77, N34, N43, T20, TP2, TP13, TP38, TP45	None	227	244	Forbidden	Forbidden	D	40
	Chloroanilines, liquid	6.1	UN2019	II	6.1	IB2, T7, TP2	153	202	243	5 L	60 L	A	52
	Chloroanilines, solid	6.1	UN2018	II	6.1	IB8, IP2, IP4, T3, TP33	153	212	242	25 kg	100 kg	A	
	Chloroanisidines	6.1	UN2233	III	6.1	IB8, IP3, T1, TP33	153	213	240	100 kg	200 kg	A	
	Chlorobenzene	3	UN1134	III	3	B1, IB3, T2, TP1	150	203	242	60 L	220 L	A	

The first step in using the Hazardous Materials Table, is determining the material's proper shipping name. Once this is done, you can locate the applicable shipping information by following the proper shipping name entry across the table to each of the other nine columns.

The 10 columns of the Hazardous Materials Table (from left to right) are:

Column 1 Symbols
Column 2 Hazardous materials descriptions and proper shipping names
Column 3 Hazard class or Division
Column 4 Identification Numbers
Column 5 PG (Packing group)
Column 6 Label Codes
Column 7 Special provisions
Column 8 Packaging (§173, ***)
Column 9 Quantity limitations
Column 10 Vessel stowage

Each of the 10 columns will be examined more closely on the following pages.

Column 1: Symbols

Column 1 uses six symbols to identify hazardous materials which have special shipping conditions — such as restrictions for air, domestic, international, or water vessel transport.

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions (§172.102)	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
G	**Flammable liquids, n.o.s.**	3	UN1993	I	3	T11, TP1, TP27	150	201	243	1 L	30 L	E	
				II	3	IB2, T7, TP1, TP8, TP28	150	202	242	5 L	60 L	B	
				III	3	B1, B52, IB3, T4, TP1, TP29	150	203	242	60 L	220 L	A	
D	**Parathion and compressed gas mixture**	2.3	NA1967		2.3	3	None	334	245	Forbidden	Forbidden	E	40

These symbols are defined as follows:

Symbol	Meaning
+	Fixes the proper shipping name, hazard class, and packing group without regard to whether the material meets the definition of that class or packing group, or meets any other hazard class definition.
A	Restricts the application of the requirements to materials offered for transportation by aircraft — unless the material is a hazardous substance or hazardous waste.
G	Identifies proper shipping names for which one or more technical names must be entered in parentheses, in association with the basic description.
D	Identifies proper shipping names which are appropriate for domestic transportation, but which may be inappropriate for international transportation.
I	Identifies proper shipping names which are appropriate for international transportation. An alternate proper shipping name may be selected when only domestic transportation is involved.
W	Restricts the application of the requirements to materials offered for transportation by vessel — unless the material is a hazardous substance or hazardous waste.

Column 2: Hazardous Materials Descriptions and Proper Shipping Names

Column 2 provides descriptions and proper shipping names of materials that have been designated as hazardous. Only the names shown in Roman type (not italics) are proper shipping names. Although the words in italics are not part of the proper shipping name they may be used in addition to the proper shipping name.

Sample from the Hazardous Materials Table

Sym-bols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identifi-cation Numbers	PG	Label Codes	Special provisions (§172.102)	(8) Packaging (§173.***)			(9) Quantity limitations (see §§173.27 and 175.75)		(10) Vessel stowage	
							Excep-tions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Pentachloroethane	6.1	UN1669	II	6.1	IB2, T7, TP2	153	202	243	5 L	60 L	A	40
	Pentachlorophenol	6.1	UN3155	II	6.1	IB8, IP2, IP4, T3, TP33	153	212	242	25 kg	100 kg	A	
	Pentaerythrite tetranitrate (dry)	Forbidden											
	Pentaerythrite tetranitrate mixture, desensitized, solid, n.o.s. *or* **Pentaerythritol tetranitrate mixture, desensitized, solid, n.o.s.** *or* **PETN mixture, desensitized, solid, n.o.s.,** *with more than 10 percent but not more than 20 percent PETN, by mass*	4.1	UN3344	II	4.1	118, N85	None	214	None	Forbidden	Forbidden	E	

To determine the proper shipping name:

Locate the material's technical name in Column 2 of the table. According to the HMR, a technical name is "a recognized chemical name or microbiological name currently used in scientific and technical handbooks, journals, and texts."

Example "Acetone" or "Sodium Peroxide"

If you cannot find the material's technical name, select a generic or n.o.s. name that most accurately describes it.

Example A material not listed by its technical name which meets the Class 3 (flammable liquid) material definition may be best described by "Flammable liquid, n.o.s." If the material is an alcohol which is not listed by name, "Alcohol, n.o.s." may be more accurate.

Next, make certain that the hazard class shown in Column 3, opposite the proper shipping name, corresponds to the classification of the material.

Example "Compounds, cleaning liquid" has two entries in the table. One entry is listed as a Class 8 material, the other as a Class 3 material.

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions (§172.102)	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
D G	**Compounds, cleaning liquid**	8	NA1760	I	8	A7, B10, T14, TP2, TP27	None	201	243	0.5 L	2.5 L	B	40
				II	8	B2, IB2, N37, T11, TP2, TP27	154	202	242	1 L	30 L	B	40
				III	8	IB3, N37, T7, TP1, TP28	154	203	241	5 L	60 L	A	40
D G	**Compounds, cleaning liquid**	3	NA1993	I	3	T11, TP1	150	201	243	1 L	30 L	E	
				II	3	IB2, T7, TP1, TP8, TP28	150	202	242	5 L	60 L	B	
				III	3	B1, B52, IB3, T4, TP1, TP29	150	203	242	60 L	220 L	A	

To ensure that the material is packaged, marked, labeled, and placarded correctly, both the proper shipping name and hazard class must match the material being shipped.

Certain n.o.s. and generic proper shipping names in column 2 of the table are required to be supplemented with a technical name(s). The letter “G” in column 1 identifies instances in which you are required to enter a technical name(s) in parentheses following the proper shipping name.

Proper shipping names may be singular or plural, and may be written in either upper or lower case letters.

Example Pentachloroethane or Pentachloroethanes

Pentachlorophenol or PENTACHLOROPHENOL

Proper shipping names may be spelled as they appear in the Table or in the same manner as in the *IMDG Code* or the *ICAO Technical Instructions*.

Example Sulfuric acid (Hazmat Table) or Sulphuric acid (IMDG)

Aluminum (Hazmat Table) or Aluminium (ICAO)

Punctuation marks and words in italics are not part of the proper shipping name, but may be used in addition to the proper shipping name.

Example Phosphorus pentasulfide free from yellow or white phosphorus

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions (§172.102)	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Phosphorus pentasulfide, *free from yellow or white phosphorus*	4.3	UN1340	II	4.3, 4.1	A20, B59, IB4, T3, TP33	151	212	242	15 kg	50 kg	B	74

The word “or” (in italics) indicates that either description in Roman type may be used as the proper shipping name.

Example Both “Lithium hypochlorite, dry” and “Lithium hypochlorite mixtures, dry” are acceptable.

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions (§172.102)	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Lithium hypochlorite, dry *with more than 39% available chlorine (8.8% available oxygen) or* **Lithium hypochlorite mixtures, dry** *with more than 39% available chlorine (8.8% available oxygen)*	5.1	UN1471	II	5.1	A9, IB8, IP2, IP4, N34	152	212	240	5 kg	25 kg	A	4, 48, 52, 56, 58, 69, 106, 116

When one entry references another by the use of the word *“see”*, and both names are in Roman type, either may be used as the proper shipping name.

Example Both “Ethyl alcohol” and “Ethanol” are acceptable.

Sample from the Hazardous Materials Table													
Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions (§172.102)	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Ethyl alcohol, *see* **Ethanol**												

When the proper shipping name includes a concentration range as part of the description, the actual concentration may be used in place of the range.

Example Ethylamine, aqueous solution, with 55 percent ethylamine

Sample from the Hazardous Materials Table													
Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions (§172.102)	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Ethylamine, aqueous solution *with not less than 50 percent but not more than 70 percent ethylamine*	3	UN2270	II	3, 8	IB2, T7, TP1	150	202	243	1 L	5 L	B	40, 52

Use of the prefi "mono" is optional in any shipping name, when appropriate.

Example "Ethylene glycol monobutyl ether" may be identifie as "Ethylene glycol butyl ether."

Hazardous substances — those substances listed in Appendix A to the Hazardous Materials Table that meet or exceed their RQ in one package — must be identifie by the applicable technical name (if shown in Column 2), or by an appropriate generic or n.o.s. name that corresponds to the substance's hazard class and packing group.

Example "Benzidine" is a hazardous substance that is also listed by technical name in the Hazardous Materials Table. It would be identifie as "Benzidine."

Example "Aldicarb" is a hazardous substance that is not listed by technical name in the Hazardous Materials Table. It would be identifie by a generic name such as "Environmentally hazardous substance, solid, n.o.s. (Aldicarb)."

Hazardous wastes must be identifie by the most appropriate proper shipping name — preceded by the word "waste."

Example Acetone that is considered waste material (in accordance with 40 CFR Part 262) would be described as "Waste acetone."

A mixture or solution not identifie specificall by name — that consists of a non-hazardous material and a hazardous material identifie in the table by technical name — may be described using the proper shipping name of the hazardous material and the qualifying word "mixture" or "solution", as appropriate. In Section 172.101(c)(10) some restrictions apply, such as the hazard class, packing group, or subsidiary hazard of the mixture or solution must be the same as the hazardous material identifie in the table.

Example The proper shipping name for a solution of Brucine and a non-regulated material could be "Brucine solution."

When a material meets the definitio of a hazard class or packing group other than that shown in Columns 3 and 5 respectively, or does not meet the subsidiary hazard(s) shown in Column 6, the material must be described by a more appropriate proper shipping name — one that lists the correct hazard class, packing group, or subsidiary hazard(s) of the material. (This does not apply if the proper shipping name is preceded by a plus (+) in Column 1.)

Column 3: hazard class or division

Column 3 lists the hazard class or division which corresponds to the proper shipping name. When the material is too hazardous to be transported, the word "Forbidden" will be shown. (This prohibition does not apply if the material is diluted, stabilized, or incorporated in a device and is classifie according to the hazard class definitions.

Sample from the Hazardous Materials Table

Sym-bols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identifi-cation Numbers	PG	Label Codes	Special provisions (§172.102)	(8) Packaging (§173.***)			(9) Quantity limitations (see §§173.27 and 175.75)		(10) Vessel stowage	
							Excep-tions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Ethane, refrigerated liquid	2.1	UN1961		2.1	T75, TP5	None	None	315	Forbidden	Forbidden	D	40
	Ethanol amine dinitrate	Forbidden											
	Ethanol and gasoline mixture *or* **Ethanol and motor spirit mixture** *or* **Ethanol and petrol mixture,** *with more than 10% ethanol*	3	UN3475	II	3	144, 177, IB2, T4, TP1	150	202	242	5 L	60 L	E	
	Ethanol *or* **Ethyl alcohol** *or* **Ethanol solutions** *or* **Ethyl alcohol solutions**	3	UN1170	II	3	24, IB2, T4, TP1	150	202	242	5 L	60 L	A	
				III	3	24, B1, IB3, T2, TP1	150	203	242	60 L	220 L	A	
	Ethanolamine *or* **Ethanolamine solutions**	8	UN2491	III	8	IB3, T4, TP1	154	203	241	5 L	60 L	A	52
	Ether, see **Diethyl ether**												
	Ethers, n.o.s.	3	UN3271	II	3	IB2, T7, TP1, TP8, TP28	150	202	242	5 L	60 L	B	

Since the hazard class or division will impact how a material is packaged and labeled, it is important that the one listed for the selected proper shipping name matches the material being transported. This becomes an issue when more than one hazard class or division is listed for a given proper shipping name.

Example "Paint related material" is listed as both a Class 8 (corrosive) material and a Class 3 (flammabl liquid) material. If you look across the table, you will notice that the labels, special provisions, authorized packag-

ings, and quantity limitations differ between the two entries.

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification numbers	PG	Label Codes	Special provisions (§172.102)	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Paint *or* **Paint related material**	8	UN3066	II	8	B2, IB2, T7, TP2 TP28	154	173	242	1 L	30 L	A	
				III	8	B52, IB3, T4, TP1 TP29	154	173	241	5 L	60 L	A	
	Paint related material corrosive, flammabl *(including paint thinning or reducing compound)*	8	UN3470	II	8, 3	IB2, T7, TP2, TP8, TP28	154	202	243	1 L	30 L	B	40
	Paint related material, flammable corrosive *(including paint thinning or reducing compound)*	3	UN3469	I	3, 8	T11, TP2, TP27	None	201	243	0.5 L	2.5 L	E	40
				II	3, 8	IB2, T7, TP2, TP8, TP28	150	202	243	1 L	5 L	B	40
				III	3, 8	IB3, T4, TP1, TP29	150	203	242	5 L	60 L	A	40
	Paint related material *including paint thinning, drying, removing, or reducing compound*	3	UN1263	I	3	T11, TP1, TP8 TP27	150	201	243	1 L	30 L	E	
				II	3	149, B52, IB2, T4, TP1, TP8, TP28	150	173	242	5 L	60 L	B	
				III	3	B1, B52, IB3, T2, TP1, TP29	150	173	242	60 L	220 L	A	

Column 4: identificatio numbers

Column 4 provides the material's UN, NA, or ID identificatio number. Numbers preceded by the letters "UN" are appropriate for both international and domestic transportation. Those preceded by "NA" are for domestic transportation and not for international transportation — except to and from Canada. Numbers preceded by the letters "ID" are associated with proper shipping names recognized by the ICAO Technical Instructions.

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions (§172.102)	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
D	**Diesel fuel**	3	NA1993	III	None	144, B1, IB3, T4, TP1, TP29	150	203	242	60 L	220 L	A	
I	**Diesel fuel**	3	UN1202	III	3	144, B1, IB3, T2, TP1	150	203	242	60L	220 L	A	

Column 5: PG (packing group)

Column 5 lists packing groups which correspond to the proper shipping name and hazard class of the material. No packing groups are assigned to Class 2 and 7 materials, and ORM-D materials.

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions (§172.102)	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Engines, internal combustion, *flammable gas powered*	9	UN3166		9	135	220	220	220	Forbidden	No limit	A	
	Engines, internal combustion, *flammable liquid powered*	9	UN3166		9	135	220	220	220	No limit	No limit	A	
G	**Environmentally hazardous substances, liquid, n.o.s.**	9	UN3082	III	9	8, 146, IB3, T4, TP1, TP29	155	203	241	No limit	No limit	A	

When more than one packing group is listed for a given proper shipping name, the correct one must be determined using the criteria detailed in Subpart D of Part 173.

Example According to the criteria in the following table (Section 173.121(a)), "Ethanol" with a flash point of less than 23ºC (73ºF) and an initial boiling point greater than 35ºC (95ºF) would be assigned to Packing Group II.

Packing Group	Flash Point (Closed-Cup)	Initial Boiling Point
I		≤35ºC (95ºF)
II	<23ºC (73ºF)	>35ºC (95ºF)
III	≥23ºC, ≤60ºC (≥73ºF, ≤140ºF)	>35ºC (95ºF)

If a material is a hazardous waste or a hazardous substance, and the proper shipping name is preceded in Column 1 by the letter "A" or "W", the packing group is modified to read "III" when offered for transportation or transported by a mode for which its transportation is not otherwise regulated.

Column 6: Label Codes

Column 6 identifies the label codes which represent the hazard warning label(s) that must be applied to the material's packaging — unless the material is excepted from the labeling requirements. When more than one label code is listed, the first code shown indicates the material's primary hazard. Additional label codes indicate subsidiary hazards.

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions (§172.102)	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Carbon dioxide, refrigerated liquid	2.2	UN2187		2.2	T75, TP5	306	304	314, 315	50 kg	500 kg	B	
A W	**Carbon dioxide, solid** *or* **Dry ice**	9	UN1845	III	None		217	217	240	200 kg	200 kg	C	40
	Carbon disulfide	3	UN1131	I	3, 6.1	B16, T14, TP2, TP7, TP13	None	201	243	Forbidden	Forbidden	D	18, 40, 115
	Carbon monoxide, compressed	2.3	UN1016		2.3, 2.1	4	None	302	314, 315	Forbidden	25 kg	D	40
D	**Carbon monoxide, refrigerated liquid** *(cryogenic liquid)*	2.3	NA9202		2.3, 2.1	4, T75, TP5	None	316	318	Forbidden	Forbidden	D	

If a material (other than a Class 1 or 2 material) has more than one hazard, all applicable subsidiary labels **may not** be listed in Column 6. In such cases, subsidiary labels must be determined using the following table which is found in Section 172.402:

Subsidiary Hazard Labels

Subsidiary Hazard Level (Packing Group)	Subsidiary Hazard (Class or Division)						
	3	4.1	4.2	4.3	5.1	6.1	8
I	X	***	***	X	X	X	X
II	X	X	X	X	X	X	X
III	*	X	X	X	X	X	X

X — Required for all modes.
* — If the flash point of a material is at or above 38°C (100°F), required for transport by air or vessel only.
** — [Reserved]
*** — Impossible as subsidiary hazard.

Example A hazardous material with a subsidiary hazard of Class 3, PG II, would require a subsidiary Class 3 label even if not listed in Column 6.

Column 7: Special Provisions

Column 7 contains special provisions or instructions specific to the hazardous material. The codes listed in this column are defined in Section 172.102.

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions (§172.102)	(8) Packaging (§173.***)			(9) Quantity limitations (see §§173.27 and 175.75)		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Borneol	4.1	UN1312	III	4.1	A1, IB8, IP3, T1, TP33	None	213	240	25 kg	100 kg	A	
+	**Boron tribromide**	8	UN2692	I	8, 6.1	2, B9, B14, B32, N34, T20, TP2, TP13, TP38, TP45	None	227	244	Forbidden	Forbidden	C	12
	Boron trichloride	2.3	UN1741		2.3, 8	3, B9, B14	None	304	314	Forbidden	Forbidden	D	25, 40
	Boron trifluoride	2.3	UN1008		2.3, 8	2, B9, B14	None	302	314, 315	Forbidden	Forbidden	D	40

Provisions referenced by a number only are multi-modal, and may apply to both bulk and non-bulk packagings. Provisions coded by letters are applicable as follows:

Code	Applies to
A	Transportation by aircraft
B	Bulk packagings, other than UN and IM specification portable tanks or IBCs
IB or IP	Transportation in IBCs
N	Non-bulk packaging
R	Transportation by rail
T	Transportation in UN or IM specification portable tanks
TP	Additional provisions for UN or IM specification portable tanks
W	Transportation by water

Example Special Provision "2" — as defined in Section 172.102 — states:

This material is poisonous by inhalation (see §171.8 of this subchapter) in Hazard Zone B (see §173.116(a) or §173.133(a) of this subchapter) and must be described as an inhalation hazard under the provisions of this subchapter.

Example Special Provision "B9" — as defined in Section 172.102 — states:

Bottom outlets are not authorized.

Reserved

Column 8: Packaging

Column 8 contains three columns of packaging authorizations: exceptions (8A), non-bulk (8B), and bulk (8C). The numerical references are to sections within Part 173 which list the applicable packagings or packaging exceptions. If the word "None" is listed, that type of packaging or exception is not authorized — except as may be provided by special provisions in Column 7.

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions (§172.102)	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Magnesium peroxide	5.1	UN1476	II	5.1	IB6, IP2, T3, TP33	152	212	242	5 kg	25 kg	A	13, 52, 66, 75
	Magnesium phosphide	4.3	UN2011	I	4.3, 6.1	A19, N40	None	211	None	Forbidden	15 kg	E	40, 52, 85
	Magnesium, powder *or* **Magnesium alloys, powder**	4.3	UN1418	I	4.3, 4.2	A19, B56	None	211	244	Forbidden	15 kg	A	39, 52
				II	4.3, 4.2	A19, B56, IB5, IP2, T3, TP33	None	212	241	15 kg	50 kg	A	39, 52
				III	4.3, 4.2	A19, B56, IB8, IP4, T1, TP33	None	213	241	25 kg	100 kg	A	39, 52

Example: The code "212" listed in 8(b) is defined in Part 173 as follows:

(b) The following combination packagings are authorized:

Outer packagings:

Steel drum: 1A1 or 1A2
Aluminum drum: 1B1 or 1B2
Metal drum other than steel or aluminum: 1N1 or 1N2
Plywood drum: 1D
Fiber drum: 1G
Plastic drum: 1H1 or 1H2
Wooden barrel: 2C2
Steel jerrican: 3A1 or 3A2
Plastic jerrican: 3H1 or 3H2
Steel box: 4A
Aluminum box: 4B
Natural wood box: 4C1 or 4C2
Plywood box: 4D
Reconstituted wood box: 4F
Fiberboard box: 4G
Solid plastic box: 4H2

Inner packagings:

Glass or earthenware receptacles
Plastic receptacles
Metal receptacles
Glass ampoules

Column 9: Quantity Limitations

Column 9 lists quantity limitations for passenger-carrying aircraft or rails cars (9A), and cargo aircraft only (9B). The limits listed are the maximum quantities that can be offered for transport in a single packaging. If the word "Forbidden" is listed the material may not be offered or transported in the applicable mode.

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions (§172.102)	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Sodium monoxide	8	UN1825	II	8	IB8, IP2, IP4, T3, TP33	154	212	240	15 kg	50 kg	A	
	Sodium nitrate	5.1	UN1498	III	5.1	A1, A29, IB8, IP3, T1, TP33	152	213	240	25 kg	100 kg	A	
	Sodium nitrate and potassium nitrate mixtures	5.1	UN1499	III	5.1	A1, A29, IB8, IP3, T1, TP33	152	213	240	25 kg	100 kg	A	
	Sodium nitrite	5.1	UN1500	III	5.1, 6.1	A1, A29, IB8, IP3, T1, TP33	152	213	240	25 kg	100 kg	A	56, 58
	Sodium pentachlorophenate	6.1	UN2567	II	6.1	IB8, IP2, IP4, T3, TP33	153	212	242	25 kg	100 kg	A	

Example: If transported by passenger aircraft or rail, the maximum quantity per package of "Sodium monoxide" would be 15 kg. If transported by cargo aircraft only, each package could contain up to 50 kg.

Column 10: Vessel Stowage

Column 10 identifies the authorized storage locations on board both passenger and cargo vessels (10A), and specifies other stowage requirements for specific hazardous materials (10B).

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions (§172.102)	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Ferrosilicon, *with 30 percent or more but less than 90 percent silicon*	4.3	UN1408	III	4.3, 6.1	A1, A19, B6, IB8, IP4, IP7, T1, TP33	151	213	240	25 kg	100 kg	A	13, 40, 52, 53, 85, 103
	Ferrous arsenate	6.1	UN1608	II	6.1	IB8, IP2, IP4, T3, TP33	153	212	242	25 kg	100 kg	A	
D	**Ferrous chloride, solid**	8	NA1759	II	8	IB8, IP2, IP4, T3, TP33	154	212	240	15 kg	50 kg	A	
D	**Ferrous chloride, solution**	8	NA1760	II	8	B3, IB2, T11, TP2, TP27	154	202	242	1 L	30 L	B	40
	Ferrous metal borings *or* **Ferrous metal shavings** *or* **Ferrous metal turnings** *or* **Ferrous metal cuttings** *in a form liable to self-heating*	4.2	UN2793	III	4.2	A1, A19, IB8, IP3, IP7	None	213	241	25 kg	100 kg	A	
	Fertilizer ammoniating solution *with free ammonia*	2.2	UN1043		2.2		306	304	314, 315	Forbidden	150 kg	E	40

The codes in 10A are define as follows:

Code	Meaning
A	The material may be stowed “on deck” or “under deck” on both passenger and cargo vessels.
B	A material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each three meters of overall vessel length. A material may be stowed “on deck only” on passenger vessels in which the number of passengers specifie in the previous sentence is exceeded.
C	The material must be stowed “on deck only” on both cargo and passenger vessels.
D	A material must be stowed “on deck only” on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers or one passenger per each three meters of overall vessel length. The material is prohibited on passenger vessels in which the limiting number of passengers in the previous sentence is exceeded.
E	A material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each three meters of overall vessel length. The material is prohibited from carriage on passenger vessels in which the limiting number of passengers in the previous sentence is exceeded.

The codes in 10B are define in the Table of Provisions, found in Section 176.84(b).

Example The code “13” is define in the Table as follows:

Sample From the Table of Provisions

Code	Provisions
11	Keep away from heat and open flame
12	Keep as cool as reasonably practicable.
13	Keep as dry as reasonably practicable.
14	For metal drums, stowage permitted under deck on cargo vessels.
15	May be stowed in portable magazine or metal locker.

List of Hazardous Substances and Reportable Quantities (Section 172.101, Appendix A)

The List of Hazardous Substances and Reportable Quantities can be found in the regulations, immediately following the Hazardous Materials Table. It contains substances that are considered "hazardous" only when shipped in a quantity, **in one package**, that equals or exceeds the "reportable quantity" (RQ) listed in Column 3. Before transporting a hazardous material, you must always check this list to see if the material (or an ingredient of the material) is also considered a hazardous substance.

Sample From Table 1—Hazardous Substances Other Than Radionuclides

Hazardous Substances	Reportable Quantity (RQ) Pounds (Kilograms)
Chlorpyrifos	1 (0.454)
Chromic acetate	1000 (454)
Chromic acid	10 (4.54)
Chromic acid H2CrO4, calcium salt	10 (4.54)
Chromic sulfate	1000 (454)

Example "Chlorpyrifos" is considered a hazardous substance if transported in quantities of one pound or more in one package. "Chromic acetate," on the other hand, would be considered a hazardous substance only if transported in quantities of 1,000 pounds or more in one package.

Hazardous substances which are transported at, or above, their reportable quantities must be identifie on shipping papers and packagings with the letters "RQ". Any release of a reportable quantity into the environment must be reported immediately to the National Response Center (1-800-424-8802).

More information on the proper identificatio of these substances can be found under the DOCUMENTATION and NON-BULK MARKING & LABELING tabs.

List of Marine Pollutants (Section 172.101, Appendix B)

The List of Marine Pollutants can also be found in the regulations following the Hazardous Materials Table. It lists materials which are known to kill or retard the growth of marine life.

Materials identified by the letters "PP" in Column 1 are considered "severe marine pollutants." That means they must only make up one percent (by weight) of a mixture or solution for the mixture or solution to be considered a marine pollutant. All other listed marine pollutants must be present in a concentration that equals or exceeds ten percent (by weight).

Sample from Appendix B to Part 172 — List of Marine Pollutants	
S.M.P.	Marine Pollutant
(1)	(2)
PP	Aldrin
.....	Alkybenzenesulphonates, branched and straight chain (excluding C11-C13 straight chain or branched chain homologues)
.....	Alkyl (C12-C14) dimethylamine
.....	Alkyl (C7-C9) nitrates
.....	Allyl bromide
.....	ortho-Aminoanisole
.....	Aminocarb

Example: A solution weighing 10 pounds would have to contain one pound or more of "Allyl Bromide" to be considered a marine pollutant. On the other hand, a solution weighing 10 pounds would only have to contain $^{1}/_{10}$ pound of "Aldrin" (a severe marine pollutant) to be considered a marine pollutant.

Because these materials pose a substantial risk to the marine environment, specific requirements have been established to ensure that they are properly packaged and identified when offered for transportation by vessel.

Marine pollutants transported by water, in any size packaging, are subject to all the applicable requirements. Marine pollutants transported by highway, rail or air are subject to the requirements when transported in BULK packages.

More information on the proper identification of these materials can be found under the DOCUMENTATION, NON-BULK MARKING & LABELING and BULK MARKING & PLACARDING tabs.

TABLE OF CONTENTS

PACKAGING

Reserved

Overview

The manner in which a hazardous material is packaged can have a significant impact on how safely that material can be transported in commerce. Because of this fact, PHMSA has established very specific requirements for all packagings — both bulk and non-bulk. These requirements are designed to ensure that the packaging selected is appropriate for the material and can withstand the conditions normally encountered in transport.

PHMSA's non-bulk packaging requirements — which are based on the *UN Recommendations* — are quite complex and involve many different parts of the regulations. This section of the manual will familiarize you with those parts, as well as with key definitions that will enable you to work your way through the maze of requirements. It will also explain the general procedures for selecting an appropriate packaging.

Packaging

Applicability

Unless otherwise stated or exceptions are authorized, the packaging requirements are the same for all modes of transport. And while most of the non-bulk requirements are based on the *UN Recommendations*, the regulations do contain some provisions that are only applicable to domestic transport. This means that compliance with these provisions will not guarantee acceptance by regulatory bodies outside of the United States.

Responsibility

The responsibility for packaging a hazardous material rests with the individual who offers the material for transport. This responsibility includes:

- Selecting a packaging appropriate for the material — given its quantity and chemical composition, and the desired method of transport.
- Complying with the special provisions and/or quantity limitations listed for the material.
- Complying with the general requirements for packaging, as well as with the requirements for either bulk or non-bulk packaging, as appropriate.
- Ensuring that the selected packaging meets the performance test requirements and detailed specifications.
- Assembling and securing all components of the packaging in the manner intended.
- Ensuring that the packaging is properly identified (i.e., marked, labeled, and placarded) before it is offered to the carrier for transport.

Definitions (Section 171.8)

In addition to authorizing the use of specific packagings for hazardous materials, the regulations contain detailed specifications for how these packagings must be con-

structed, as well as how they must perform during transport. To understand these various requirements, however, it is first necessary to understand several key terms.

Non-Bulk and Bulk Packagings

Throughout the regulations, packaging requirements are separated according to the two general types of packagings: non-bulk and bulk.

Non-bulk packagings

Non-bulk packagings are those that have:

- A maximum capacity of 450 L (119 gal) or less, as a receptacle for a liquid,
- A maximum net mass of 400 kg (882 lbs) or less and a maximum capacity of 450 L (119 gal) or less, as a receptacle for a solid, or
- A water capacity of 454 kg (1,000 lbs) or less, as a receptacle for a gas.

Bulk packagings

Bulk packaging means a packaging, other than a vessel or a barge, including a transport vehicle or freight container, in which hazardous materials are loaded with no intermediate form of containment. A Large Packaging in which hazardous materials are loaded with an intermediate form of containment, such as one or more articles or inner packagings, is also a bulk packaging. Additionally, a bulk packaging has:

- A maximum capacity greater than 450 L (119 gal) as a receptacle for a liquid,
- A maximum net mass greater than 400 kg (882 lbs) or a maximum capacity greater than 450 L (119 gal), as a receptacle for a solid, or
- A water capacity greater than 454 kg (1,000 lbs), as a receptacle for a gas.

Example In Column 8 of the Hazardous Materials Table, separate packaging authorization codes are listed for non-bulk packagings (8B) and bulk packagings (8C).

In Part 173, the majority of authorized non-bulk packagings are listed in Subpart E, while the majority of authorized bulk packagings are listed in Subpart F.

In Part 178, performance standards and test requirements for non-bulk packagings are addressed in Subparts L and M. Intermediate bulk container performance standards and test requirements are covered in Subparts N and O.

NOTE: A new definition *Large packaging* has been added to the regulations.

Large packaging means a packaging that--

- Consists of an outer packaging that contains articles or inner packagings;

- Is designated for mechanical handling;
- Exceeds 400 kg net mass or 450 liters (118.9 gallons) capacity;
- Has a volume of not more than 3 cubic meters (m\3\) (see Sec. 178.801(i) of this subchapter); and
- Conforms to the requirements for the construction, testing, and marking of Large Packagings as specified in Subparts P and Q of Part 178 of the HMR, as applicable.

The preamble(s) to HM-231 may be accessed in the PREAMBLES tab.

Packing Groups and Hazard Zones

For many materials, the selection of appropriate packagings is impacted by the assignment of packing groups and/or hazard zones.

Packing groups

Packing groups indicate the degree of danger that a hazardous material presents during transport. There are three:

- Packing Group I — great danger
- Packing Group II — medium danger
- Packing Group III — minor danger

Packing groups are assigned to Classes 1, 3 through 6, 8, and 9. In the case of Class 6, they are only assigned to materials in Division 6.1.

In general, packing group assignments are listed in Column 5 of the Hazardous Materials Table. When more than one packing group is listed for a given proper shipping name, the correct one is determined by referencing the class-specific criteria detailed in Part 173.

Example For Class 3 (flammable liquid) materials, there are three packing groups. When more than one is listed, as in the case of “Aldehydes, n.o.s.,” the correct one is determined according to the material’s flash point and initial boiling point.

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Aldehydes, n.o.s.	3	UN1989	I	3	T11, TP1, TP27	None	201	243	1 L	30 L	E	
				II	3	IB2, T7, TP1, TP8, TP28	150	202	242	5 L	60 L	B	
				III	3	B1, IB3, T4, TP1, TP29	150	203	242	60 L	220 L	A	

Packing Group	Flash Point (Closed-Cup)	Initial Boiling Point
I		≤35ºC (95ºF)
II	<23ºC (73ºF)	>35ºC (95ºF)
III	≥23ºC, ≤60ºC (≥73ºF,≤140ºF)	>35ºC (95ºF)

Hazard zone

Hazard zone is one of four levels of hazard (A through D) assigned to Division 2.3 (poisonous gas) materials, and one of two levels (A and B) assigned to Division 6.1 (poisonous liquid) materials that are poisonous by the inhalation of vapors. Hazard zones are based on the LC_{50} value for acute inhalation toxicity.

Example For Division 2.3 (poisonous gas) materials, there are four hazard zones. The correct one is determined according to the material's level of inhalation toxicity:

Hazard Zone	Inhalation Toxicity
A	LC_{50} less than or equal to 200 ppm.
B	LC_{50} greater than 200 ppm and less than or equal to 1000 ppm.
C	LC_{50} greater than 1000 ppm and less than or equal to 3000 ppm.
D	LC_{50} greater than 3000 ppm or less than or equal to 5000 ppm.

Example For Division 6.1 materials, the packing group assignment is determined using the following table if the material's route of administration is other than by the inhalation of vapors:

Packing Group	Oral toxicity LD_{50} (mg/kg)	Dermal toxicity LD_{50} (mg/kg)	Inhalation toxicity by dusts and mists LC_{50} (mg/L)
I	≤ 5	≤ 50	≤ 0.2
II	> 5, and ≤ 50	> 50 and ≤ 200	> 0.2 and ≤ 2.0
III	solids: > 50, and ≤ 300	> 200 and ≤ 1000	> 2.0 and ≤ 4.0

For Division 6.1 materials that are poisonous by the inhalation of vapors, packing groups and hazard zones are determined using the following table:

Packing Group	Vapor concentration and toxicity
I (Hazard Zone A).	V ≥ 500 LC_{50} and LC_{50} ≤ 200 mL/M^3.
I (Hazard Zone B).	V ≥ 10 LC_{50}; LC_{50} ≤ 1000 mL/m^3; and the criteria for Packing Group I, Hazard Zone A are not met.
II	V ≥ LC_{50}; LC_{50} ≤ 3000 mL/m^3; and the criteria for Packing Group I, are not met.
III	V ≥ .2 LC_{50}; LC_{50} ≤ 5000 mL/m^3; and the criteria for Packing Groups I and II, are not met.

Packaging Codes

Throughout the regulations (and particularly within Part 173) non-bulk performance-oriented packagings are indicated by codes — such as "1A1" or "6HG1". Codes that contain only one capital letter indicate **single packagings**, and can be deciphered as follows:

- The firs numeral designates the kind of packaging:

  1 = Drum

  2 = Wooden barrel

  3 = Jerrican

  4 = Box

  5 = Bag

  6 = Composite packaging

  7 = Pressure receptacle

- The letter indicates the material of construction:

  A = Steel (all types and surface treatments)

  B = Aluminum

C = Natural wood

D = Plywood

F = Reconstituted wood

G = Fiberboard

H = Plastic

L = Textile

M = Paper, multi-wall

N = Metal (other than steel and aluminum)

P = Glass, porcelain, or stoneware

- A second numeral indicates the category of packaging within the packaging:

  1 = Non-removable head (for drums)

  2 = Removable head (for drums)

Example "1A1" indicates a steel drum with a non-removable head, while "4D" indicates a plywood box.

Codes that contain two capital letters indicate **composite packagings**. The firs letter designates the material for the inner receptacle, and the second, the material for the outer packaging.

Example "6HA1" would be a plastic receptacle in a steel drum with a non-removable head.

Performance-Oriented Testing

To ensure that they are able to withstand the conditions normally encountered during transport, non-bulk packagings are required to undergo a series of performance tests which may include the following:

- Drop test
- Leakproofness test
- Hydrostatic pressure test
- Stacking test
- Vibration standard

The performance requirements for these tests are more or less restrictive depending upon the packing group of the material for which the packaging is to be used. Proof that the packaging has passed the required tests is indicated by its manufacturer's marking:

Example

1A1/Y1.4/150/83

USA/VL824

1.0

Drop Test

The drop test must be conducted for the qualificatio of all packaging design types, and must be performed periodically as specifie in § 178.601(e). The number of drops required for each type of packaging is indicated in the following table:

Packaging	No. of tests (samples)	Drop orientation of samples
Steel drums, Aluminum drums, Metal drums (other than steel or aluminum), Steel Jerricans, Plywood drums, Wooden barrels, Fiber drums, Plastic drums and Jerricans, Composite packagings which are in the shape of a drum.	Six—(three for each drop)	First drop (using three samples): The package must strike the target diagonally on the chime or, if the packaging has no chime, on a circumferential seam or an edge. Second drop (using the other three samples): The package must strike the target on the weakest part not tested by the firs drop, for example a closure or, for some cylindrical drums, the welded longitudinal seam of the drum body.
Boxes of natural wood, Plywood boxes, Reconstituted wood boxes, Fiberboard boxes, Plastic boxes, Steel or aluminum boxes, Composite packagings which are in the shape of a box.	Five—(one for each drop)	First drop: Flat on the bottom (using the firs sample). Second drop: Flat on the top (using the second sample). Third drop: Flat on the long side (using the third sample). Fourth drop: Flat on the short side (using the fourth sample). Fifth drop: On a corner (using the fift sample).

Packaging	No. of tests (samples)	Drop orientation of samples
Bags—single-ply with a side seam	Three—(three drops per bag)	First drop: Flat on a wide face (using all three samples). Second drop: Flat on narrow face (using all three samples). Third drop: On an end of the bag (using all three samples).
Bags—single-ply without a side seam, or multi-ply.	Three—(two drops per bag)	First drop: Flat on a wide face (using all three samples). Second drop: On an end of the bag (using all three samples).

When drop tests are conducted with the solid or liquid material that will be transported, drop heights are determined by packing group.

Example For a material with a specifi gravity not exceeding 1.2, drop heights are as follows:

- Packing Group I — 1.8 m (5.9 ft)
- Packing Group II — 1.2 m (3.9 ft)
- Packing Group III — 0.8 m (2.6 ft)

For a material with a specifi gravity in excess of 1.2, drop heights are determined using the formulas detailed in Section 178.603.

Leakproofness Test

The leakproofness test must be performed with compressed air or other suitable gases on all packagings intended to contain liquids — except that the inner receptacle of a composite packaging may be tested without the outer packaging, provided the test results are not affected. Inner packagings of combination packagings are not required to undergo this test.

The pressure that is applied to the packaging during testing varies according to the packing group for which the packaging is being tested. A packaging passes the test if there is no leakage of air.

Example: An internal air pressure (gauge) must be applied to the packaging as follows:

- Packing Group I — not less than 30 kPa (4 psi)
- Packing Group II — not less than 20 kPa (3 psi)
- Packing Group III — not less than 20 kPa (3 psi)

Hydrostatic Pressure Test

The hydrostatic pressure test must be conducted for the qualification of all metal, plastic, and composite packaging design types which will contain liquids. It is not required for inner packagings of combination packagings.

The duration of time that pressure is applied to the packaging varies according to the material of construction. A packaging passes the test if there is no leakage of liquid.

Example: Metal packagings and composite packagings (other than plastic), including their closures, must be subjected to the test pressure for 5 minutes. Plastic packagings and composite packagings (made of plastic material), including their closures, must be subjected for 30 minutes.

Stacking Test

The stacking test must be performed on all packaging design types except bags. To perform the test, the packaging must be subjected to a force applied to the top surface equivalent to the weight of identical packagings which might be stacked on it during transport. A packaging passes the test if there is no leakage and no deterioration of the packaging which is likely to reduce its strength, cause instability in stacks, or cause damage to the inner packaging.

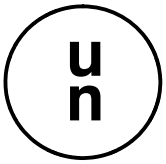
Vibration Standard

Each packaging must be **capable of** withstanding the vibration test procedure outlined in Section 178.608. A packaging passes the test if there is no rupture or leakage and no deterioration of the packaging which could adversely affect transportation safety or reduce packaging strength.

Manufacturers' Markings

To be acceptable for transport, non-bulk packagings which are required to conform to a UN standard must be marked with a manufacturers' marking. This marking must be durable, clearly visible, and include the following:

- United Nations' symbol



- Appropriate packaging code (such as "1A2") designating:
  - — The type of packaging (1 = drum).
  - — The material of construction (A = steel).
  - — The category of packaging within the packaging (2 = removable head).

- A letter identifying the performance standard under which the packaging design has been successfully tested.

Letter	Meaning
X	Packaging meets packing group I, II, and III tests.
Y	Packaging meets packing group II and III tests.
Z	Packaging meets packing group III tests.

- For outer packagings intended to contain liquids — a designation of the specific gravity. (This designation can be omitted if less than 1.2.)
- For inner packagings or packagings intended to contain solids — the maximum gross mass in kilograms.
- For single and composite packagings intended to contain liquids — the test pressure in kilopascals, rounded down to the nearest 10 kPa of hydrostatic pressure that the package has successfully passed.
- For for solids and inner packagings — the letter "S".
- The last two digits of the year of manufacture.
- For plastic drums (1H) and jerricans (3H) — the last two digits of the year of manufacture and the month of manufacture.

- The letters “USA” to indicate that the package was manufactured in the USA and marked according to the Hazardous Materials Regulations.
- The name and address, or symbol, of the manufacturer or approval agency certifying compliance. Symbols must be registered with the Associate Administrator for Hazardous Materials Safety.
- The minimum thickness in millimeters (mm) of the packaging materials for metal or plastic drums or jerricans intended for reuse or reconditioning, or of the outer packaging of a composite packaging intended for reuse or reconditioning.

A packaging that has been **reconditioned** must also be marked — near the above described markings — with:

- The name of the country in which the reconditioning was performed. The letters “USA” will suffice for the United States.
- The name and address, or symbol, of the reconditioner. Symbols must be registered with the Associate Administrator for Hazardous Materials Safety.
- The last two digits of the year of reconditioning.
- The letter “R” (for reconditioned).
- The letter “L” for packagings which have successfully passed the leakproofness test.

Example: The following marking indicates a fiberboard box (4G) — tested for packing groups II and III (Y) and that has a maximum mass of 145 kg — is designed to contain an inner packaging (S) — was manufactured in 2003 (03) in the United States (USA) by a manufacturer whose registered symbol is (RA).

4G/Y145/S/03

USA/RA

Example: This marking indicates a steel, non-removable head drum (1A1) that has been designed as a single packaging for liquids, tested for packing groups II and III (Y), with a specific gravity up to 1.4, and hydrostatically tested to 150 kPa. The drum was manufactured in 2003 (03) in the United States (USA) by a manufacturer whose registered symbol is "VL824". The minimum thickness of the material is 1 millimeter.

un

1A1/Y1.4/150/03

USA/VL824

1.0

Example: This marking indicates a steel, non-removable head drum (1A1), designed as a single packaging for liquids, tested for packing groups II and III (Y), for materials with a specific gravity of 1.4. It was hydrostatically tested to 150 kPa and was manufactured in 2002 (02). The drum was reconditioned in the United States (USA) by a reconditioner whose registered symbol is "RB" in 1993 (93). The drum was reconditioned (R) and successfully passed the leakproofness test (L).

un

1A1/Y1.4/150/02

USA/RB/93 RL

Regulatory References

PHMSA addresses packaging requirements throughout the Hazardous Materials Regulations. The applicable parts and sections, along with the types of packaging information they provide, are discussed below. More detailed information on the use of these parts and sections will be covered under “Packaging Selection.”

Hazardous Materials Table (Section 172.101)

The Hazardous Materials Table is the starting point for determining the appropriate packaging for a hazardous material. It lists codes for the applicable special provisions (Column 7), packaging exceptions (Column 8A), authorized non-bulk packagings (Column 8B), and authorized bulk packagings (Column 8C).

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Trichlorobutene	6.1	UN2322	II	6.1	IB2, T7, TP2	153	202	243	5 L	60 L	A	25, 40
	1,1,1-Trichloroethane	6.1	UN2831	III	6.1	IB3, N36, T4, TP1	153	203	241	60 L	220 L	A	40

Special Provisions (Section 172.102)

Section 172.102 defines the special provision codes listed in Column 7 of the Hazardous Materials Table. The applicability of these provisions for a given material will vary, depending on the quantity being transported and the mode of transport being used. However, many of these special provisions apply to packaging.

General Requirements (Sections 173.24 - 173.24b)

Unless specifically excepted, all packagings and packages — including new and reused packagings, and specification and non-specification packages — must be in compliance with the general requirements detailed in Section 173.24. Thus, even though the specifications for a given package are spelled out in Part 178, that package must also conform to the requirements of Section 173.24.

In addition, non-bulk packagings must comply with the requirements of Section 173.24a, and bulk packagings, with the requirements of Section 173.24b.

Example: One general requirement in Section 173.24 is that each packaging and package be:

> ... designed, constructed, maintained, filled, its contents so limited, and closed, so that under conditions normally incident to transportation ... there will be no identifiable (without the use of instruments) release of hazardous materials to the environment.

Example: With regard to the packaging design of non-bulk packagings, Section 173.24a requires the following:

> The nature and thickness of the outer packaging must be such that friction during transportation is not likely to generate an amount of heat sufficient to alter dangerously the chemical stability of the contents.

Example: Section 173.24b requires bulk packagings to comply with the following outage and filling limits:

> Except as otherwise provided in this subchapter, liquids and liquefied gases must be so loaded that the outage is at least five percent for materials poisonous by inhalation, or at least one percent for all other materials, of the total capacity of a cargo tank, portable tank, tank car (including dome capacity), multi-unit tank car tank, or any compartment thereof, at the following reference temperatures—
>
> (i) 46°C (115°F) for a noninsulated tank;
>
> (ii) 43°C (110°F) for a tank car having a thermal protection system, incorporating a metal jacket that provides an overall thermal conductance at 15.5°C (60°F) of no more than 10.22 kilojoules per hour per square meter per degree Celsius (0.5 Btu per hour/per square foot/per degree F) temperature differential; or
>
> (iii) 41°C (105°F) for an insulated tank.

Authorized Packagings & Exceptions (Part 173)

Columns 8A, 8B, and 8C of the Hazardous Materials Table list specific exceptions, non-bulk packagings, and bulk packagings for a material. The codes shown in these columns refer to sections within Part 173 where the exceptions are explained and the authorized packagings are listed.

- Subpart C — Packaging for Class 1
- Subpart D — Exceptions
- Subpart E — Non-bulk Packaging for Hazardous Materials Other Than Class 1 and Class 7
- Subpart F — Bulk Packaging for Hazardous Materials Other Than Class 1 and Class 7
- Subpart G — Packaging for Gases
- Subpart I — Packaging for Radioactive Materials

Example: According to Column 8 of the Hazardous Materials Table, there are no authorized packaging exceptions for "Trichlorobutene." However, authorized non-bulk packagings for the material are listed in Section 173.202, and authorized bulk packagings are listed in Section 173.243.

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Trichlorobutene	6.1	UN2322	II	6.1	IB2, T7, TP2	153	202	243	5 L	60 L	A	25, 40

§173.202 Non-bulk packagings for liquid hazardous materials in Packing Group II.

...(b) The following combination packagings are authorized:

Outer packagings:

Steel drum: 1A1 or 1A2
Aluminum drum: 1B1 or 1B2
Metal drum other than steel or aluminum: 1N1 or 1N2
Plywood drum: 1D
Fiber drum: 1G
Plastic drum: 1H1 or 1H2...

§173.243 Bulk packaging for certain high hazard liquids and dual hazard materials which pose a moderate hazard.

...(a) *Rail cars:* Class DOT 103, 104, 105, 109, 111, 112, 114, 115, or 120 fusion-welded tank car tanks; and Class 106 or 110 multi-unit tank car tanks.

(b) *Cargo tanks.* Specification MC 304, MC 307, MC 330, MC 331 cargo tank motor vehicles; and MC 310, MC 311, MC 312, DOT 407, and DOT 412 cargo tank motor vehicles with tank design pressure of at least 172.4 kPa (25 psig). Cargo tanks used to transport Class 3 or Division 6.1 materials, or Class 8, Packing Group I or II materials...

In addition, some sections within Part 173 contain general packaging requirements for a given hazard class, or specific packaging requirements for a given hazardous material.

Example: Section 173.60 requires all packagings used to contain Class 1 materials to meet Packing Group II requirements, unless otherwise provided and be capable of meeting the test requirements of Part 178, Subpart M. In addition, these packagings must meet certain general requirements — a few of which are summarized below.

- Nails, staples, etc. made of metal with no protective coating must not penetrate the outer packaging, unless the inner packaging is such that the explosive is protected against contact with the metal.
- Closures for liquids must provide double protection against leakage — such as a screw cap secured with tape.
- Packaging must be such that no dangerous movement of materials will occur within the packages during transportation.
- When the packaging contains water, sufficient anti-freeze must be added to prevent freezing. The anti-freeze must not be of a type which could create a fire hazard.
- Each article with a means of ignition or initiation must be protected against accidental operation during transportation.
- Double-seamed metal packaging must be prepared to prevent an explosive from entering the seams.
- The closure device for aluminum and steel drums must include a gasket, and if with a screw-thread, the explosive substance must not be able to penetrate the threaded area.

Example In Section 173.188 the following packaging requirements are listed for the transport of "white or yellow phosphorus."

- When placed in water, it must be packed in wooden boxes (4C1, 4C2, 4D, or 4F) with: inner hermetically sealed (soldered) metal cans, enclosed in other hermetically sealed (soldered) metal cans, or inner water-tight metal cans containing not over 0.5 kg (1 lb) of phosphorus with screw-top closures. It may also be contained in steel drums (1A1) not over 250 L (66 gal) capacity each, or steel drums (1A2) not over 115 L (30 gal) capacity each.
- When dry, it must be cast solid and shipped in steel drums (1A2) not over 115 L (30 gal) capacity each, or in projectiles or bombs — without bursting elements — when shipped by, for, or to the Departments of the Army, Navy, or Air Force of the U.S. Government.

Specification Requirements (Parts 178 & 179)

Once a packaging has been selected from the list of authorized packagings in Part 173, Parts 178 and 179 are used to determine the applicable specifications for the packaging. Part 178 includes specifications and test requirements for packagings other than tank cars:

- Subpart B — Specifications for Inside Containers and Linings
- Subpart C — Specifications for Cylinders
- Subpart H — Specifications for Portable Tanks
- Subpart J — Specifications for Containers for Motor Vehicle Transportation
- Subpart K — Specifications for Packagings for Class 7 (Radioactive) Materials
- Subpart L — Non-bulk Performance-Oriented Packaging Standards
- Subpart M — Testing of Non-bulk Packagings and Packages
- Subpart N — Intermediate Bulk Container Performance-Oriented Standards
- Subpart O — Testing of Intermediate Bulk Containers
- Subpart P —- Large Packagings Standards
- Subpart Q — Testing of Large Packagings

New subparts P and Q may be viewed in their entirety at jj.keller.com/thm and in the February 2, 2010, final rule. The preamble to HM-231 may be accessed in the PREAMBLES tab.

Tank car specifications can be found in Part 179.

Example The specifications for aluminum drums can be found in Section 178.505.

§178.505 Standards for aluminum drums.

(a) The following are the identification codes for aluminum drums:

(1) 1B1 for a non-removable head aluminum drum; and

(2) 1B2 for a removable head aluminum drum.

(b) Construction requirements for aluminum drums are as follows:

(1) Body and heads must be constructed of aluminum at least 99 percent pure or an aluminum base alloy. Material must be of suitable type and adequate thickness in relation to the capacity and the intended use of the drum...

Packaging Selection

Packaging selection is a multi-step procedure that involves referencing numerous parts of the regulations. Shown below is the procedure that is used to select packagings for materials in Classes 2 through 6, 8, and 9. Information on the proper selection procedures for Classes 1 and 7 can be found in the regulations in Part 173, Subparts C and I, respectively.

Packaging Selection for Class 2-6, 8 & 9 Materials

To select an appropriate packaging for a material in one of these classes:

(1) Locate the material's proper shipping name, hazard class, and packing group (if any) in the Hazardous Materials Table. If more than one packing group is shown, select the correct one according to the criteria detailed in Subpart D of Part 173.

(2) Review the special provisions listed for the material in Column 7 to determine if any apply. These codes are defined in Section 172.102.

(3) Review the exceptions listed in Column 8A to determine if any apply. These exceptions are detailed in Part 173.

(4) Refer to either Column 8B (non-bulk) or 8C (bulk), to locate the appropriate section in Part 173 where the authorized packagings will be listed.

(5) Select an appropriate packaging from the lists in Part 173 by taking into consideration the following:

- Material's quantity
- Material's compatibility with the packaging
- Mode of transport being used

(6) Locate the applicable specification and test standards for the selected packaging in Part 178 or 179.

(7) Refer to Sections 173.24 and 173.24a or 173.24b to ensure that the packaging meets the general requirements listed for all packagings and for non-bulk or bulk packagings, as applicable.

Example To determine the appropriate packaging for "Acetylene, dissolved," you must firs locate the proper shipping name in Column 2 of the Hazardous Materials Table. Looking across the table, you will see that it is a Division 2.1 material which has no packing group and no special provisions.

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Acetylene, dissolved	2.1	UN1001		2.1		None	303	None	Forbidden	15 kg	D	25, 40, 57

Column 8B lists the non-bulk packaging reference "303" — which refers to Section 173.303. It is in this section that the authorized packagings are listed. For "Acetylene, dissolved," either a Spec. 8 or 8AL cylinder would be acceptable.

§173.303 Charging of cylinders with compressed gas in solution (acetylene).

(a) *Cylinder, filler and solvent requirements.* (Refer to applicable parts of Specification 8 and 8AL). Acetylene gas must be shipped in Specification 8 or 8AL cylinders (§§178.59 or 178.60 of this subchapter). The cylinders shall consist of metal shells filled with a porous material, and this material must be charged with a suitable solvent. The cylinders containing the porous material and solvent must be tested in accordance with CGA C-12 (IBR, see §171.7 of this subchapter). Representative samples of cylinders charged with acetylene must be tested with satisfactory results in accordance with CGA C-12.

Example To determine the appropriate non-bulk packaging for 220 liters of "Methyl isobutyl ketone" in a drum, you would again refer to the Hazardous Materials Table. This material is listed as a Class 3, Packing Group II material. The special provision shown in Column 7 — IB2, T4, and TP1 — is applicable to transport in authorized IBCs and

portable tanks.

Sample from the Hazardous Materials Table													
Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Methyl isobutyl ketone	3	UN1245	II	3	IB2, T4, TP1	150	202	242	5 L	60 L	B	

In Column 8A Section 173.150 is referenced for exceptions (limited quantities and consumer commodities). The non-bulk packaging reference in Column 8B is to Section 173.202. This section lists non-bulk packagings for liquid hazardous materials in Packing Group II. Paragraph (b) of this section lists authorized combination packagings. Since you want to ship this in a drum, you can refer to paragraph (c) which lists authorized single packagings.

§173.202 Non-bulk packagings for liquid hazardous materials in Packing Group II.

...(c) Except for transportation by passenger aircraft, the following single packagings are authorized:

Steel drum: 1A1 or 1A2

Aluminum drum: 1B1 or 1B2

Metal drum other than steel or aluminum: 1N1 or 1N2

Plastic drum: 1H1 or 1H2

Fiber drum: 1G (with liner)

Wooden barrel: 2C1

Steel jerrican: 3A1 or 3A2

Plastic jerrican: 3H1 or 3H2

Aluminum jerrican: 3B1 or 3B2

Plastic receptacle in steel, aluminum, fiber or plastic drum: 6HA1, 6HB1, 6HG1 or 6HH1

Plastic receptacle in steel, aluminum, wooden, plywood or fiberboard box: 6HA2, 6HB2, 6HC, 6HD2 or 6HG2

Glass, porcelain or stoneware in steel, aluminum or fiber drum: 6PA1, 6PB1 or 6PG1

Glass, porcelain or stoneware in steel, aluminum, wooden or fiberboard box: 6PA2, 6PB2, 6PC or 6PG2

Glass, porcelain or stoneware in solid or expanded plastic packaging: 6PH1 or 6PH2

Plastic receptacle in plywood drum: 6HD1

Glass, porcelain or stoneware in plywood drum or wickerwork hamper: 6PD1 or 6PD2

Cylinders, specification, as prescribed for any compressed gas, except for Specifications 8 and 3HT...

There are numerous single packagings listed — including six types of metal drums (i.e., 1A1, 1A2, 1B1, 1B2, 1N1, and 1N2). In determining which drum would be best, you must consider the compatibility of the hazardous material and the metal. You must also take into consideration the capacity — since this, too, could result in additional requirements. For example, of the standards listed in Section 178.504 for steel drums, the following would be applicable to a 220-liter, non-removable head, steel drum (1A1):

- Body and heads must be constructed of steel sheet of suitable type and adequate thickness in relation to capacity.
- Body seams must be welded.
- Chimes must be mechanically seamed or welded. Separate reinforced rings may be applied.
- Two expanded or separate rolling hoods are required.
- The openings must not exceed 7.0 cm (3 in).
- The permitted maximum net mass is 400 kg (882 lbs).

Example The same procedure is used to select a non-bulk packaging for the Division 4.1, Packing Group II material, "Lead phosphite, dibasic."

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Lead phosphite, dibasic	4.1	UN2989	II	4.1	IB8, IP2, IP4, T3, TP33	None	212	240	15 kg	50 kg	B	34
				III	4.1	IB8, IP3, T1, TP33	151	213	240	25 kg	100 kg	B	34

Column 8B refers you to Section 173.212 which lists both single and combination packagings for solid hazardous materials in Packing Group II. For the purpose of this example, let's assume that a combination packaging is required.

§173.212 Non-bulk packagings for solid hazardous materials in Packing Group II.

...(b) The following combination packagings are authorized:

Outer packagings:

Steel drum: 1A1 or 1A2

Aluminum drum: 1B1 or 1B2

Metal drum other than steel or aluminum: 1N1 or 1N2

Plywood drum: 1D

Fiber drum: 1G

Plastic drum: 1H1 or 1H2

Wooden barrel: 2C2

Steel jerrican: 3A1 or 3A2

Plastic jerrican: 3H1 or 3H2

Aluminum jerrican: 3B1 or 3B2

Steel box: 4A

Aluminum box: 4B

Natural wood box: 4C1 or 4C2

Plywood box: 4D

Reconstituted wood box: 4F

Fiberboard box: 4G

Solid plastic box: 4H2

Inner packagings:

Glass or earthenware receptacles

Plastic receptacles

Metal receptacles

Glass ampoules

If a natural wooden box is desired for the outer packaging, you would want to select 4C2 — since the material is a powder and this box has sift-proof walls. Given the properties of the material, glass would be an acceptable choice for the inner packaging.

Remember, in all cases, non-bulk packagings must be in compliance with the general packaging requirements of Section 173.24, as well as with the additional non-bulk requirements listed in Section 173.24a.

Example: In determining the appropriate non-bulk packaging for "Barium chlorate," consider two of the special provisions listed in Column 7 — "A9" and "N34."

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Barium chlorate, solid	5.1	UN1445	II	5.1, 6.1	A9, IB6, IP2, N34, T3, TP33	152	212	242	5 kg	25 kg	A	56, 58

These two codes are defined in Section 172.102 as follows:

A9 For combination packagings, if plastic bags are used, they must be packed in tightly closed metal receptacles before packing in outer packagings.

N34 Aluminum construction materials are not authorized for any part of a packaging which is normally in contact with the hazardous material.

"Barium chlorate" is a dangerous material. Not only is it an oxidizer and poison, but it can react violently with a number of materials — including aluminum, arsenic, copper, and carbon. Therefore, special caution must be taken in choosing a packing from the list of authorized packagings in Section 173.212.

§173.212 Non-bulk packagings for solid hazardous materials in Packing Group II.

(a) When §172.101 of this subchapter specifies that a solid hazardous material be packaged under this section, only non-bulk packagings prescribed in this section may be used for its transportation. Each package must conform to the general packaging requirements of subpart B of part 173, to the requirements of part 178 of this subchapter at the Packing Group I or II performance level, and to the requirements of the special provisions of Column 7 of the 172.101 Table.

(b) The following combination packagings are authorized:

Outer packagings:

Steel drum: 1A1 or 1A2

Aluminum drum: 1B1 or 1B2

Metal drum other than steel or aluminum: 1N1 or 1N2

Plywood drum: 1D

Fiber drum: 1G

Plastic drum: 1H1 or 1H2
Wooden barrel: 2C2
Steel jerrican: 3A1 or 3A2
Plastic jerrican: 3H1 or 3H2
Aluminum jerrican: 3B1 or 3B2
Steel box: 4A
Aluminum box: 4B
Natural wood box: 4C1 or 4C2
Plywood box: 4D
Reconstituted wood box: 4F
Fiberboard box: 4G
Solid plastic box: 4H2

Inner packagings:

Glass or earthenware receptacles
Plastic receptacles
Metal receptacles
Glass ampoules

A plastic bag inside a tightly-closed metal receptacle (in accordance with special provision "A9") will be used as the inner packaging. A "4G" fiberboard box — which meets the construction standards in Section 178.516 — will be selected as the outer packaging.

§178.516 Standards for fiberboard boxes.

(a) The identification code for a fiberboard box is 4G.

(b) Construction requirements for fiberboard boxes are as follows:

(1) Strong, solid or double-faced corrugated fiberboard (single or multi-wall) must be used, appropriate to the capacity and intended use of the box. The water resistance of the outer surface must be such that the increase in mass, as determined in a test carried out over a period of 30 minutes by the Cobb method of determining water absorption, is not greater than 155 g per square meter (0.0316 pounds per square foot) — see ISO 535. Fiberboard must have proper bending qualities. Fiberboard must be cut, creased without cutting through any thickness of fiberboard, and slotted so as to permit assembly without cracking, surface breaks, or undue bending. The fluting of corrugated fiberboard must be firmly glued to the facings.

(2) The ends of boxes may have a wooden frame or be entirely of wood or other suitable material. Reinforcements of wooden battens may be used.

(3) Manufacturing joints. (i) Manufacturing joints in the bodies of boxes must be—

(A) Taped;

(B) Lapped and glued; or

(C) Lapped and stitched with metal staples.

(ii) Lapped joints must have an appropriate overlap.

(4) Where closing is effected by gluing or taping, a water resistant adhesive must be used.

(5) Boxes must be designed so as to provide a snug fit to the contents.

(6) Maximum net mass: 400 kg (882 pounds).

Example: To select a bulk packaging for "Carbon dioxide," you would again locate the proper shipping name in Column 2 of the Hazardous Materials Table. Looking across the table, you will see that it is a Division 2.2 (non-flammable gas) material which has no packing group and no special provisions.

Sample from the Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions	(8) Packaging (§173.***)			(9) Quantity limitations		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Carbon dioxide	2.2	UN1013		2.2		306	302, 304	302, 314, 315	75 kg	150 kg	A	

The bulk packaging references listed in Column 8C refer you to Sections 173.302 (Charging of cylinders with non-liquified compressed gases), 173.314 (Requirements for compressed gases in tank car tanks), and 173.315 (Compressed gases in cargo tanks and portable tanks). Assuming that the desired packaging was a tank car tank, you would refer to Section 173.314 for the specific packaging requirements.

Proper shipping name	Outage and filling limits (see note 1)	Authorized tank car class
Carbon dioxide, refrigerated liquid	Note 5	105.
Chlorine	Note 6	105.
	125	106.
Chlorine trifluoride	Note 3	106, 110.
Chlorine pentafluoride	Note 3	106, 110.
Dimethyl ether	Note 3	105, 106, 110, 112, 114, 120.
Dimethylamine, anhydrous	Note 3	105, 106, 112.
Dinitrogen tetroxide, inhibited	Note 3	105, 106, 110.
Division 2.1 materials not specifically identified in this table	Notes 9, 10	105, 106, 110, 112, 114, 120.
Division 2.2 materials not specifically identified in this table	Note 3	105, 106, 109, 110, 112, 114, 120.
Division 2.3 Zone A materials not specifically identified in this table	None	See §173.245.

Since "Carbon dioxide" is not specifically listed by name in the above table, you would refer to the entry for "Division 2.2 materials not specifically provided for in this table." According to the table, the outage and filling limits are provided for in Note 3. Note 3 states:

> The requirements of §173.24b(a) apply.

Section 173.24b(a) lists the following outage and filling limits:

> **§173.24b Additional general requirements for bulk packagings.**
>
> (a) *Outage and filling limits.* (1) Except as otherwise provided in this subchapter, liquids and liquefied gases must be so loaded that the outage is at least five percent for materials poisonous by inhalation, or at least one percent for all other materials, of the total capacity of a cargo tank, portable tank, tank car (including dome capacity), multi-unit tank car tank, or any compartment thereof, at the following reference temperatures—
> (i) 46°C (115°F) for a noninsulated tank;
> (ii) 43°C (110°F) for a tank car having a thermal protection system, incorporating a metal jacket that provides an overall thermal conductance at 15.5°C (60°F) of no more than 10.22 kilojoules per hour per square meter per degree Celsius (0.5 Btu per hour/per square foot/per degree F) temperature differential; or
> (iii) 41°C (105°F) for an insulated tank.

Authorized tank car classes — 105, 106, 109, 110, 112, and 114 may be used.

Packaging exceptions

All packagings of hazardous materials, regardless of the mode of transportation, must be as specifie in Part 173, unless exceptions are authorized. The three most common exceptions are:

Small quantities for highway and rail

Small quantities of Class 2.2 (except areosols with no subsidiary hazard), Class 3, Division 4.1, 4.2, (PG II & III), 4.3 (PG II & III), Division 5.1 & 5.2, Division 6.1, Class 7, Class 8, and Class 9. See 49 CFR 173.4, 173.4a, and 173.4b.

Limited quantities

Certain limited quantities of hazardous materials are excepted from the packaging regulations. The exceptions are found in §173.150 for Class 3, §173.151 for Division 4.1, §173.152 for Class 5, §173.153 for Division 6.1, §173.154 for Class 8, §173.155 for Class 9, and §173.306 for Class 2.

Salvage drums

Packages of hazardous materials that are damaged, defective, or found leaking **and** hazardous materials that have spilled or leaked may be placed in a salvage drum for transport to be repackaged or for disposal. Salvage drums are excepted from the packaging regulations to the extent allowed in §173.3(c).

Reserved

TABLE OF CONTENTS

DOCUMENTATION

Overview

Although there are a few exceptions, shipping papers are required for each hazardous materials shipment. They are relied on by all who come into contact with the shipment to provide key information about what is being transported and how hazardous it is. While the regulations do not mandate the use of a specifi form, they do detail what information must be included and how the information must be shown. Typically, the general shipping paper requirement can be met using a way-bill, manifest, or bill of lading — such as the one shown here.

CONTAINS HAZARDOUS MATERIALS

STRAIGHT BILL OF LADING – ORIGINAL – NOT NEGOTIABLE

Shipper's No. _____

Carrier _____ SCAC _____ Carrier's No. _____

RECEIVED, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications and rules that have been established by the carrier and are available to the shipper, on request; and all applicable state and federal regulations;

at _____, date _____ from _____

the Property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to delivery at said destination, if on its route, or otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said Property over all or any portion of said route to destination and as to each party at any time interested in all or any of said Property that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on the back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

TO:
Consignee
Street
Destination Zip

FROM:
Shipper
Street
Origin Zip

Route

Delivering Carrier | Vehicle Number | U.S. DOT Hazmat Reg. Number

Number and Type of Packages	HM	I.D. Number	Description of Articles	Hazard Class	Pkg. Grp.	Total Quantity (mass, volume, or activity)	Weight (subject to correction)	Class or Rate
2 drums	X	UN1654	NICOTINE	6.1	II		200 lbs.	
1 case			Brushes				10 lbs.	
1 box	X	UN1133	Adhesives	3	II		25 lbs.	

Remit COD to:
Address:
City: State: Zip:

NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding $ Per

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement: The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of Consignor)

COD AMT: $

TOTAL CHARGES: $

COD FEE: Prepaid ☐ Collect ☐ $

FREIGHT CHARGES: ☐ Prepaid ☐ Collect

NOTE: Liability Limitation for loss or damage in this shipment may be applicable. See 49 U.S.C. 14706(c)(1)(A) and (B).

This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Per *Michael Greene*

PLACARDS REQUIRED

PLACARDS SUPPLIED ☐ BY SHIPPER ☐ BY CARRIER

DRIVER'S SIGNATURE:

SHIPPER: _____ CARRIER: _____

PER: Michael Greene DATE: 06/01/2010 PER: _____ DATE: _____

EMERGENCY RESPONSE TELEPHONE NUMBER: (800) 123-4567

NAME OR CONTRACT NUMBER OR OTHER UNIQUE IDENTIFIER: A12345

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CONTAINS HAZARDOUS MATERIALS

Another documentation requirement is — all shipments that require a shipping paper must be accompanied by emergency response information. In the event of a leak, spill, or other such incident, this information provides emergency personnel with guidance as to the appropriate response measures.

This section of your manual will review the regulations' general requirements for documentation. It will also address some of the special rules applicable to the different modes of transport.

Shipping Papers (Part 172, Subpart C)

Applicability

The general shipping paper requirements apply to hazardous material shipments offered for transport by all modes — rail, air, vessel, and highway.

Exceptions

Exceptions to the general shipping paper requirements are authorized for any material identifie by the letter "A" or "W" in Column 1 of the Hazardous Materials Table (Section 172.101), unless the material is:

- Offered or intended for transportation by air or water, respectively.
- A hazardous waste.
- A hazardous substance (listed in Appendix A to the Hazardous Materials Table).
- A marine pollutant (listed in Appendix B to the Hazardous Materials Table).

The shipping paper requirements do not apply to a limited quantity package unless it is offered or intended for transportation by air or vessel, and, until December 1, 2013, a package of ORM-D material authorized by the HMR in effect on October 1, 2010, when offered for transportation by highway or rail. Shipping papers are also not required for Category B infectious substances prepared in accordance with Section173.199.

Responsibility

Shipping papers must be prepared by the person who is offering the hazardous materials for transport. However, there may be times when the carrier will be required to make additional notations.

For transportation by rail, a rail carrier may accept shipping paper information either telephonically (i.e., voice communications and facsimiles) or electronically (EDI) from an offeror of a hazardous materials shipment. The information must be available to the offeror and carrier at all times during transport, and the carrier must have and maintain a printed copy of the information until delivery of the hazardous materials on the shipping paper is complete.

When a paper document is produced, the data must be presented as required. The offeror must forward the shipping paper (record) for a loaded movement to the carrier prior to shipment unless the carrier prepares the shipping paper on behalf of the offeror. The offeror is only relieved of the duty to forward the shipping paper once the offeror has received a copy of the shipping paper from the carrier.

A carrier that generates a residue shipping paper using information from the previous loaded movement of a hazardous materials packaging must ensure the description of the hazardous material that accompanies the shipment complies with the offeror's request. The carrier and the offeror must also have a procedure by which the offeror can verify accuracy of the transmitted hazard communication information that will accompany the shipment.

Retention

The Pipeline and Hazardous Materials Safety Administration (PHMSA), has amended the Hazardous Materials Regulations (HMR) to require shippers to retain a copy of each hazardous material shipping paper, or an electronic image thereof, for a period of 2 years after the date the hazardous material is accepted by a carrier. Carriers must retain a copy of each shipping paper for one year after the material is accepted from the shipper. A year is calculated from the exact date the shipping paper is provided to the initial carrier until the same date the following year.

It must be accessible at or through the principal place of business and the shipping paper must be made available, upon request, to an authorized official of a federal, state, or local government agency at reasonable times and locations.

Hazardous Materials Description

Each hazardous material that will be offered for transport must be clearly described on the shipping paper using the applicable information from the Hazardous Materials Table. At a minimum, this shipping description must include the material's:

- Identificatio number (Column 4)
- Proper shipping name (Column 2)
- Hazard class or division number (Column 3)
- The subsidiary hazard class or division number entered in parentheses (The subsidiary hazard class or division number is not required to be entered when a corresponding subsidiary hazard label is not required.) (Column 6)
- Packing group, if any (Column 5)
- Total quantity, by net or gross mass, capacity, or as otherwise appropriate
- Number and type of packages

The total quantity is **not** required for empty hazardous material packaging (i.e., one that has not been purged or refille with a non-hazardous material), cylinders of Class 2 materials, and bulk packagings.

However, some indication of total quantity must be shown for cylinders of Class 2 materials and bulk packagings.

Example 10 cylinders or 1 cargo tank

The HMR requires that the information be entered before or after (or both before and after) the basic description.

Basic Description

The firs fiv (5) items — often referred to as the material's basic description —must be shown, with no additional information interspersed unless authorized by the regulations. The packing group must be shown in Roman numerals and may be preceded by the letters "PG".

For domestic shipments, primary and subsidiary hazard class or division names may be entered following the numerical hazard class or division, or following the basic description.

If the material is described using a generic or n.o.s. entry preceded by the symbol “G” in column 1 of the Hazardous Materials Table, the technical name(s) of the material’s hazardous component(s) must be entered in parentheses. The technical name(s) in parentheses can be placed between the proper shipping name and the hazard class or they may be listed following the packing group.

Example UN1760, Corrosive liquid, n.o.s. (Caprylyl chloride), 8, II

UN1760, Corrosive liquid, n.o.s., 8, II, (Caprylyl chloride)

A modifie (such as “contains” or “containing”) and/or the percentage of the hazardous component may be included, if appropriate.

Example UN1993, Flammable liquids, n.o.s. (contains Xylene, Benzene), 3, II

Total Quantity

The fift required item — the material’s total quantity — may be placed either before, after, or both before and after the basic description. In addition, it must include the appropriate unit of measure (such as pounds, gallons, kilograms, and liters). While the regulations do not typically allow abbreviations, they are permitted when specifying the material’s weight or volume (lbs, L) or the type of packaging (cyl.).

Example 1 box, 25 lbs., UN1133, Adhesives, 3, II

UN1133, Adhesives, 3, II, 25 lb. box

1 box, UN1133, Adhesives, 3, II, 25 lbs.

For most shipments, the type of packaging (such as a box or drum) is not a required entry. However, for bulk packagings and cylinders of Class 2 materials, some indication of total quantity must be shown.

Additional Description Entries

The regulations specificall permit the addition of class names or subsidiary hazard class or division numbers — either following the numerical hazard class, or following the basic description. Any other additional information pertaining to the material may be entered on the shipping paper provided that:

- It is not inconsistent with the required description.
- It is placed after the basic description.

Hazardous Material Entries

Because hazardous materials often require extra precautions during handling and transport, it is important that they can be easily identified If the shipping paper includes entries for both hazardous and non-hazardous materials, the hazardous entries must be:

- Entered first or

Number and Type of Packages	I.D. Number	Description of Articles	Hazard Class	Pkg. Grp.	Weight (subject to correction)
1 box	UN1133	Adhesives	3	II	25 lbs.
1 case		Brushes			10 lbs.

- Identifie with an “X” or “RQ” (as appropriate) in a column designated “HM”, or

Number and Type of Packages	HM	I.D. Number	Description of Articles	Hazard Class	Pkg. Grp.	Weight (subject to correction)
1 case			Brushes			10 lbs.
1 box	X	UN1133	Adhesives	3	II	25 lbs.

- Entered in a contrasting color. (Note: They may be highlighted on copies of the shipping paper.)

Additional Notations

Depending on the material and the conditions of transport, additional descriptive information may be required on the shipping papers.

Shipping descriptions for hazardous materials offered or intended for transportation by rail that contain all the information required and that are formatted and ordered in accordance with recognized electronic data interchange standards and, to the extent possible in the order and manner required, are deemed to comply with the requirements.

Some of the more common notations are shown on the following pages using examples. Modal-specifi notations and those applicable only to radioactive materials are listed in the tables that follow.

N.O.S Entries

For materials described by an n.o.s. or generic proper shipping name, the technical name(s) of the hazardous component(s) must be entered in parentheses in association with the basic description, if the proper shipping name is preceded by the symbol “G” in Column 1 of the Hazardous Materials Table. The word “contains” or “containing” may be used, as appropriate.

Example 3 boxes, UN1760, Corrosive liquid, n.o.s. (Fluoroboric acid), 8, III, 26 lbs.

10 boxes, UN2924, Flammable liquid, corrosive, n.o.s., 3, 8, II (contains Methanol, Potassium hydroxide), 50 lbs.

Hazardous Substances

If the name of the hazardous substance is not identifie in the proper shipping name, one of the following must be provided in parentheses in association with the basic description.

- Name of the hazardous substance, or
- A waste stream number, or
- For wastes, the letters “EPA” followed by the word “ignitability”, or “corrosivity”, or “reactivity” or “toxicity”, as appropriate or the corresponding “D” number.

Example 10 bags, NA3077, Environmentally Hazardous Substance, solid, n.o.s. (Chlorpyrifos), 9, III, RQ, 400 lbs.

Reportable Quantities

For hazardous substances which are transported in a quantity in one package at or above their reportable quantities, the letters “RQ” must be entered before or after the basic description, or in the column designated “HM”.

Number and Type of Packages	HM	I.D. Number	Description of Articles	Hazard Class	Pkg. Grp.	Weight (subject to correction)
1 Drum	RQ	UN2809	Mercury	8	III	400 lbs.

Number and Type of Packages	Description of Articles	Weight (subject to correction)
1 DRUM	RQ, UN2809, MERCURY, 8, III	400 lbs.

Limited Quantities

When a shipping paper is required, the description for a material offered for transportation as a limited quantity must include the words “Limited Quantity” or “Ltd Qty” following the basic description.

Example 1 box, UN1230, METHANOL, 3, II, Ltd. Qty., 0.25 gal

Poisonous Materials

- For materials which are poisonous by inhalation, the words “Poison-Inhalation Hazard,” followed by “Zone A, B, C, or D” for gases, or “Zone A or B” for liquids, must be entered after the shipping description.

Example UN1754, Chlorosulfonic acid, 8, I, Poison-Inhalation Hazard Zone B

Residues

When a tank car contains the residue of a hazardous material the words “RESIDUE: Last Contained * * *” **must** be located on the shipping paper before the basic description.

Packagings (not including tank cars) containing the residue of a hazardous material may include the words “RESIDUE: Last Contained * * *” in association with the basic description.

Example 1 TANK CAR, RESIDUE: LAST CONTAINED UN1203, GASOLINE, 3, II

Marine Pollutants

For materials which are marine pollutants, the words “Marine Pollutant” must be entered in association with the basic description. In addition, if the name of the component that makes a material a marine pollutant is not identifie in the proper shipping name, it must be added in parentheses in association with the basic description. If two or more components are involved, the two components most predominantly contributing to the marine pollutant designation must be listed.

Except when transported aboard vessel, marine pollutants in non-bulk packagings are not subject to the hazmat requirements

Number and Type of Packages	HM	Description of Articles	Weight (subject to correction)
1 Portable tank	X	UN1088, Acetal, 3, II, Marine Pollutant	4500 lbs.

Elevated Temperature Materials

For materials which are elevated temperature materials (other than “Molten sulfur” or “Molten aluminum”), the word “HOT” must immediately precede the proper shipping name — if the fact that the material is an elevated temperature material is not disclosed in the proper shipping name.

Example HOT, UN 1999, Tars, liquid, 3, II

DOT-Special Permits

For shipments made under a special permit, the notation "DOT-SP" followed by the appropriate special permit number must be located on the shipping paper near the description to which it applies.

Example UN 1181, Ethyl chloroacetate, 6.1, II, DOT-SP 9168

Additional Notations for Radioactive Materials

NOTATION	EXPLANATIONS
Name of each Radionuclide	Required on shipping papers for each radionuclide in a material listed in 173.435, abbreviations authorized.
Description of Physical and Chemical Form	Required for radioactive material not in special form.
Activity	Required on shipping papers to indicate activity contained in each package of the shipment in curies, millicuries, or microcuries; abbreviations authorized.
Category of Label Applied	Required on shipping papers for a shipment of radioactive material; e.g., RADIOACTIVE WHITE–I.
Transport Index	Required on shipping papers for each package bearing RADIOACTIVE YELLOW–II or RADIOACTIVE YELLOW–III labels.
Fissile Excepted	Required for a shipment of Fissile Radioactive Materials to indicate excepted by 173.453.
The criticality safety index for the package, if applicable	See 49 CFR Subpart I — Class 7 (Radioactive) Materials
Package Identificatio Marking	For a package approved by the U.S. Department of Energy (DOE) or the U.S. Nuclear Regulatory Commission (NRC) as prescribed in the applicable DOE or NRC approval. For an export shipment or in a foreign made package, the package identificatio markings as prescribed in the applicable International Atomic Energy Agency Certificat of Competent Authority which has been issued for the package.
Exclusive Use Shipment	Required to be entered once on shipping papers if all descriptions are consigned as exclusive use or some indication that the shipment is cosigned as exclusive use.
Highway route controlled quantities	For the shipment of a highway route controlled quantity of Class 7 material the words "Highway route controlled quantity" or "HRCQ" must be entered in association with the basic description.

Additional Notations for Air Shipments

NOTATION	EXPLANATIONS
CARGO AIRCRAFT ONLY	Required when a package of hazardous materials is offered for transportation by air, and prohibited from transportation aboard passenger carrying aircraft; locate after base description.

Additional Notations for Rail Shipments

NOTATION	EXPLANATIONS
DOT–113 Do Not Hump or Cut Off Car While in Motion	Required on shipping papers for each DOT–113 tank car containing a Division 2.1 material.
Maximum Operating Speed 15 mph	Must be on the shipping paper for elevated temperature materials transported under an exception.

Additional Notations for Vessel Shipments

NOTATION	EXPLANATIONS
Name of Shipper	Required for each shipping paper for shipment of hazardous materials by water.
Package Identificatio	Required on shipping papers for each shipment by water; must identify type of packages used to ship the hazardous materials (e.g., drums).
Number of Each Type of Packaging	Required on shipping papers for each shipment by water; must list number of each type of package, including those in a freight container or on a pallet.
Gross Mass	Required on shipping papers for each shipment by water; must include gross mass of each type of package, or the individual gross mass of each individual package.

Additional Notations for Highway Shipments

NOTATION	EXPLANATIONS
0.2 PERCENT WATER	Required for shipping papers for anhydrous ammonia shipped in specificatio MC 330 or MC 331 cargo tanks made of quenched and tempered steel to indicate suitability for shipment in such tanks. Locate after basic description.

NOTATION	EXPLANATIONS
NOT FOR Q and T TANKS	Required on shipping papers for anhydrous ammonia shipped in specificatio MC 330 or MC 331 cargo tank made of quenched and tempered steel when the anhydrous ammonia does not contain 0.2 percent or more water by weight. Locate after basic description.
NONCORROSIVE or NONCOR	Required on shipping papers for ‘‘noncorrosive’’ liquefie petroleum gas shipped in specificatio MC 330 or MC 331 cargo tanks made of quenched and tempered steel when offered for transportation as authorized by the regulations. Locate after basic description.

Shipper’s Certificatio

Another required entry on the shipping paper is a certificatio that the hazardous materials have been prepared in accordance with the regulations. The certificatio must be printed manually or mechanically on the shipping paper. For transportation by rail only, the certifi cation may be received verbally or with an electronic signature.

Signature

The shipper’s certification

- Must be legibly signed by a principal, officer, partner, or employee of the shipper or his agent.
- May be signed manually, by typewriter, or by other mechanical means

For transportation by rail, when transmitted by telephone or electronically, the signature must be in one of the following forms: The name of the principal person, partner, officer, or employee of the offeror or his agent in a computer fiel define for that purpose.

Certificatio Wording

Domestic shipments by rail, vessel, or highway can use either of the two following certificatio statements.

> This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

However, when hazardous materials are offered for **international transport**, the certificatio statement must read:

> I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked, and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national government regulations.

For **transportation by rail**, the shipping paper certificatio may also be accomplished by:

Verbal Certification When received telephonically, by the carrier reading the complete shipping description that will accompany the shipment back to the offeror and receiving verbal

acknowledgment that the description is as required. This verbal acknowledgement must be recorded, either on the shipping document or in a separate record, e.g., the waybill, in accordance with § 174.24, and must include the date and name of the person who provided this information.

Electronic Signature Certification When transmitted electronically, by completing the fiel designated for the shipper's signature, the shipper is also certifying its compliance with the certificatio specifie in § 172.204(a). The name of the principal partner, officer, or employee of the offeror or their agent must be substituted for the asterisks.

For **air shipments** the following must be used:

AIR

> I hereby certify that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked and labeled and in proper condition for carriage by air according to applicable national governmental regulations.
>
> Effective October 1, 2006, each person who offers a hazardous material for transportation by air must add to the certification:
>
> "I declare that all of the applicable air transport requirements have been met."

Each person who offers a hazardous material to an aircraft operator for transport by air must provide two copies of the required certification

Note: This certificatio is not applicable when radioactive materials are transported by passenger aircraft.

When a shipment of **radioactive material** is offered for transport by **passenger aircraft**, an additional statement (identifie with an "*") must be added to the certificatio authorized for air transport.

> This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.
>
> This shipment is within the limitations prescribed for passenger aircraft.

* This shipment contains radioactive material intended for use in, or incident to, research, medical diagnosis, or treatment.

When a shipment of **hazardous waste** is offered for transportation off-site, the Environmental Protection Agency (EPA) regulations (40 CFR Part 262) require that the manifest include the following certification

> I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

Exceptions

A shipper's certificatio is not required for a hazardous material (other than hazardous waste) offered for transport by motor vehicle and transported:

- In a cargo tank supplied by the carrier, or

- By the shipper operating as a private carrier — unless the material is to be re-shipped or transferred from one carrier to another.

No certificatio is required for the return of an empty tank car which has not been cleaned or purged of hazardous material.

Emergency Response Information (Part 172, Subpart G)

General Requirements

All hazardous material shipments that require shipping papers must also be accompanied by emergency response information. At minimum, the following information must be provided for each hazardous material in the shipment:

- Basic description and technical name of the hazardous material
- Immediate hazards to health
- Risks of fir or explosion
- Immediate precautions to be taken in the event of an accident or incident
- Immediate methods for handling fire
- Initial methods for handling spills or leaks in the absence of fir
- Preliminary firs aid measures

How this information is presented is up to the discretion of the shipper. PHMSA's main concern is that the information is complete, printed legibly, and in English.

Location During Transport

The purpose of providing emergency response information is so that emergency personnel take appropriate response measures in the event of a leak, spill, or other such incident involving hazardous materials. This information does little good if it cannot be found when needed. So that it is readily accessible, the carrier must keep the information with the shipping papers, away from packages containing hazardous materials, and in a location immediately accessible in the event of an incident.

Acceptable Methods

The most common methods for providing the required emergency response information include:

- Listing it directly on the shipping papers.
- Keeping a copy of the Emergency Response Guidebook with the shipping papers.
- Keeping a copy of the appropriate guide page from the Emergency Response Guidebook with the shipping papers. The material's basic description (and technical name(s), if any) must be included.
- Keeping a copy of the material's SDS (Safety Data Sheet) with the shipping papers. The material's basic description (and technical name(s), if any) must be included.

Emergency Response Guidebook (ERG)

The ERG was developed by Canadian, Mexican, and United States agencies to assist firs responders at the scene of a transportation incident involving hazardous materials. It enables them to quickly identify the specifi or general classificatio of the material involved, and protect themselves and the general public during the initial response phase.

Although the ERG was developed for firs responders it may be used to satisfy RSPA's emergency response information requirements.

The ERG consists of four (4) colored sections:

- The **yellow** section lists hazardous materials in numerical order. It can be used to fin the appropriate "guide number" if the material's assigned identificatio number is known.
- The **blue** section lists hazardous materials in alphabetical order. It can be used to fin the appropriate "guide number" if the material's proper shipping name is known.
- The **orange** section consists of numbered "guides" that list a material's potential hazards and emergency action procedures.
- The **green** section lists suggested distances for protecting people from spill areas involving hazardous materials that produce poisonous effects when inhaled. This section must be referenced if the hazardous material entry is highlighted in either the yellow or blue section.

To use the ERG to meet PHMSA's emergency response information requirements keep a copy with the shipping papers.

If you are going to use a copy of the appropriate guide page to meet the emergency responder information requirements — be sure to add the material's basic description (and technical name(s), if any) to the copy.

SDSs

Safety data sheets (SDSs) list all of the known hazard and protection information required by OSHA for a particular chemical. To meet PHMSA's requirements, the SDS attached to the shipping paper must contain all of the required emergency response information.

CAUTION: Check the SDS before using it to meet PHMSA's emergency response information requirements. Most SDSs do **not** contain all the PHMSA required response information.

Sample Safety Data Sheet

This is a *sample* safety data sheet for a commonly found hazardous chemical, carbon monoxide. It is meant to be representative of the types of information you will fin and list on the SDS, but may not by any means, be relied on as an accurate data sheet for carbon monoxide.

1. Chemical Product and Company Identificatio

Product name:	Carbon Monoxide
Product code:	09876
Chemical family:	Nonmetal oxide
Chemical name:	Carbon Monoxide

Formula:	CO
Manufacturer:	Sample Gas Co. P.O. Box 01234 Peoria, Illinois 61614-1234 (999) 555-1212
Emergency Telephone Numbers:	Transportation (800) 555-1234

2. Composition/Information on Ingredients

Nonmetal oxide:	100%
Ingredient name/CAS number:	Carbon monoxide/630-08-0
Exposure Limits	(1989) 35 Molar ppm TWA ACGIH: 50 Molar ppm STEL=400 Molar ppm
Concentration (%)	N/A

3. Hazards Identificatio

Emergency Overview

Colorless, odorless, poisonous gas. Carbon monoxide is flammabl in air over a very wide range. It reacts violently with oxygen difluorid and barium peroxide.

Potential Health Effects

Routes of Entry:	Inhalation
Human Effects and Symptoms of Overexposure:	Depending on levels and duration of exposure, symptoms may include headache, dizziness, heart palpitations, weakness, confusion and nausea to convulsions, eventual unconsciousness and death. Oxygen transport function of the hemoglobin of the blood is reduced since it reacts with in-haled carbon monoxide to form carboxy hemoglobin instead of its normal reaction with the oxygen in the lungs to form oxyhemoglobin. Affinity of hemoglobin for carbon monoxide is 200-300 times greater than its affinity for oxygen.
Acute Inhalation:	As above.
Chronic Inhalation:	As above.
Acute Skin Contact:	None determined.
Chronic Skin Contact:	None determined.
Acute Eye Contact:	None determined.
Chronic Eye Contact:	None determined.
Acute Ingestion:	None determined.
Chronic Ingestion:	None determined.
Carcinogenicity:	
NTP	Not listed
IARC	Not listed
OSHA	(1985) TWA = 50 Molar ppm
Medical Conditions Aggravated by Exposure:	Disorders are due to markedly reduced cellular respiration and may include central nervous system impairment, cardiovascular collapse, renal insufficiency, coma, etc.

4. First Aid Measures

First Aid for Eyes:	Not Applicable.
First Aid for Skin:	Not Applicable.

First Aid for Inhalation:	**Prompt medical attention is mandatory in all cases of overexposure to carbon monoxide. Rescue personnel should be equipped with self-contained breathing apparatus and be cognizant of extreme fir and explosion hazard.** Conscious persons should be assisted to an uncontaminated area and be treated with supplemental oxygen. Quick removal from the contaminated area is most important. Unconscious persons should be moved to an uncontaminated area and be given artificia respiration and oxygen at the same time. The administering of the oxygen at an elevated pressure (up to 2-2.5 atmospheres) has shown to be beneficia as has treatment in a hyperbaric chamber. The physician should be informed that the patient has inhaled toxic quantities of carbon monoxide.
First Aid for Ingestion:	Not Applicable.

5. Firefightin Measures

Flash Point:	Gas
Extinguishing Media:	Water, dry chemical, carbon dioxide
Special Firefightin Procedures:	If possible, stop the flo of carbon monoxide. Use water spray to cool surrounding containers. Carbon Monoxide has almost the same density as air. It will not diffuse by rising as with some lighter flammable such as hydrogen or natural gas (methane).

6. Accidental Release Measures

Spill or leak procedures: Evacuate all personnel from affected area. Use appropriate protective equipment. If leak is in user's equipment, be certain to purge piping with an inert gas prior to attempting repairs. If leak is in container or container valve, contact your closest supplier location or call the emergency telephone number listed on page 1.

7. Handling and Storage

Storage Temperature (Min/Max):	Max = 130°F (54°C)
Shelf Life:	Avoid excessive storage time.
Special Sensitivity:	Carbon monoxide can be handled in all commonly used metals up to approximately 500 psig (3450 kPa). Above that pressure it forms toxic and corrosive carbonyl compounds with some metals. Carbon steels, aluminum alloys, copper and copper alloyls, low carbon stainless steels and nickel-based alloys such as Hastelloy A, B & C are recommended for higher pressure applications.
Handling and Storage Precautions:	Use only in well-ventilated areas. Valve protection caps must remain in place unless container is secured with valve outlet piped to use point. Do not drag, slide, or roll cylinders. Use a suitable hand truck for cylinder movement. Use a pressure reducing regulator when connecting cylinder to lower pressure (<2000 psig) piping or systems. Do not heat cylinder by any means to increase the discharge rate of product from the cylinder. Use a check valve or trap in the discharge line to prevent hazardous back flo from the cylinder.
Protect cylinders from physical damage:	Store in cool, dry, well-ventilated area of non-combustible construction away from heavily trafficked areas and emergency exits. Do not allow the temperature where cylinders are stored to exceed 125°F (52°C). Cylinders should be stored upright and firml secured to prevent falling or being knocked over. Full and empty cylinders should be segregated. Use a "firs in-firs out" inventory system to prevent full cylinders being stored for excessive periods of time. Post "No smoking or open flames signs in the storage or use area. There should be no sources of ignition in the storage or use area.

For additional handling and storage recommendations, consult Compressed Gas Association's Pamphlet P-1.

8. Exposure Controls/Personal Protection

Eye Protection Requirements:	Safety goggles or glasses
Skin Protection Requirements:	N/A
Respiratory/Ventilation Requirements:	Positive pressure air line with mask or self-contained breathing apparatus should be available for emergency use.
Exposure Limits:	N/A

9. Physical and Chemical Properties

Physical Form:	Gas
Color:	Colorless

	Odor:	Odorless
	Boiling Point:	-313° F (-192° C)
	Freezing Point:	-337° F (-205° C)
	pH:	N/A
	Solubility in Water:	Very slight
	Specifi Gravity:	@ 70° F (21.1° C): 0.96
	Bulk Density:	N/A
	% Volatile by Weight:	N/A
	Vapor Pressure:	greater than 760 mm Hg @ 20C
	Vapor Density:	@ 70F (21.1C): .072 lb/ft^3 (1.15 kg/m^3)
10.	**Reactivity**	
	Stability:	Stable
	Hazardous Polymerization:	Will not occur
	Incompatibilities:	Oxidizers
	Decomposition Products:	No Information
11.	**Toxicological Information:**	No Information
12.	**Ecological Information:**	No Information
13.	**Disposal Considerations**	
	Waste Disposal Method:	Waste Disposal Method: Do not attempt to dispose of waste or unused quantities. Return in the shipping container **properly labeled, with any valve outlet plugs or caps secured and valve protection cap in place** to your supplier. For emergency disposal assistance, contact your closest supplier location or call the emergency telephone number listed on page 1.
14.	**Transportation Information**	
	DOT Shipping Name:	Carbon Monoxide
	Technical Shipping Name:	Carbon Monoxide
	DOT Hazard Class:	2.3 (Flammable Gas)
	UN/NA Number:	UN 1016
	Product RQ (lb):	None
	DOT Label:	Poison gas, flammabl gas
	DOT Placard:	Poison
	Freight Class Bulk:	N/A
	Freight Class Package:	N/A
	Product Label:	N/A
15.	**Regulatory Information**	
	OSHA Status:	Regulated under subpart Z
	TSCA Status:	N/A
	Cercla Reportable Quantity:	N/A
	SARA Title III:	
	Section 302 Extremely Hazardous Substances:	N/A
	Section 311/312 Hazard Categories:	N/A
	Section 313 Toxic Chemicals:	N/A
	RCRA Status:	N/A
	State Regulatory Information:	Proposition 65 7/1/89-R
16.	**Other Information**	
	Reason for Issue:	Update to new format
	Prepared by:	Mary Smith
	Approved by:	John Doe
	Title:	Product Safety Supervisor
	Approval Date:	1/1/94

Supersedes Date: 1/1/92
MSDS Number: 01234

Emergency Response Telephone Number (Section 172.604)

Number Requirements

A person who offers a hazardous material for transportation must provide an emergency response telephone number, including the area code, for use in an emergency involving the hazardous material. For telephone numbers outside the United States, the international access code or the "+" (plus) sign, country code, and city code, as appropriate, that are needed to complete the call must be included.

The telephone number must be— (1) Monitored at all times the hazardous material is in transportation, including storage incidental to transportation; (2) The telephone number of a person who is either knowledgeable of the hazardous material being shipped and has comprehensive emergency response and incident mitigation information for that material, or has immediate access to a person who possesses such knowledge and information.

Answering machines and voice mail are **not** acceptable!

NOTE: The offeror/shipper name or the emergency response information (ERI) contract number or unique identifie provided by the ERI service provider must be included on the shipping paper adjacent to the emergency response telephone number (if a number is used). However, if the offeror/shipper name or ERI identifie appears elsewhere in a prominent location on the shipping paper, neither the name nor identifie is required in relation to the emergency response telephone number listed on the shipping paper.

Refer to the preambles published October 19, 2009 (HM-206F), and September 1, 2010 (HM-244C), in the PREAMBLES tab for additional information and insight (as well as contact numbers to call) regarding the new ERI telephone requirements.

Location on Shipping Paper

The number must be entered on the shipping paper—

- Immediately following the description of the hazardous material, or
- It may be entered once on the shipping paper in a clearly visible location and indicated that it is for emergency response information. This second option (see below) may be used only if the telephone number applies to each hazardous material listed on the shipping paper.

SHIPPER: _____ CARRIER: _____
PER: Michael Greene DATE: 06/01/2010 PER: _____ DATE: _____

EMERGENCY RESPONSE TELEPHONE NUMBER: (800) 123-4567
NAME OR CONTRACT NUMBER OR OTHER UNIQUE IDENTIFIER: A12345

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CONTAINS HAZARDOUS MATERIALS

Exceptions

The emergency response telephone number requirements do not apply to the following:

- Hazardous materials that are offered for transportation under the provisions applicable to limited quantities; and
- Materials properly described under the shipping names “Battery powered equipment”, “Battery powered vehicle”, “Carbon dioxide, solid”, “Castor bean”, “Castor flake” “Castor meal”, “Castor pomace”, “Consumer commodity”, “Dry ice”, “Engines, internal combustion”, “Fish meal, stabilized”, “Fish scrap, stabilized”, Refrigerating machine”, “Vehicle, flammabl gas powered”, “Vehicle, flammabl liquid powered”, “Wheelchair, electric”.

Additional Documentation: Rail (Part 174, Subpart B)

The documentation that accompanies rail shipments of hazardous materials must be in compliance with the general requirements detailed in Part 172, as well as with the modal-specifi requirements detailed in Part 174. These additional requirements are summarized below.

Responsibility

Rail carriers may not accept a hazardous materials shipment unless it is accompanied by properly prepared shipping papers. A member of the train crew of the train transporting the shipment must have a copy of the shipping papers in his possession, but is not required to have the shipper’s certificatio statement — provided that the original shipping paper with the certificatio is in the possession of the originating carrier.

Notice to Train Crews

Whenever a train consists of a loaded, placarded car containing hazardous materials, the train crew must have a document which indicates the current position in the train of each placarded car. The train crew must update the document to indicate changes in the placement of placarded rail cars within the train.

Additional Documentation: Air (Part 175, Subpart A)

The documentation that accompanies air shipments of hazardous materials must be in compliance with the general requirements detailed in Part 172, as well as with the modal-specifi requirements detailed in Part 175. These additional requirements are summarized below.

Multiple Copies

A hazardous materials shipment may only be accepted for transport by aircraft if the material has been properly described and certified by the shipper on duplicate shipping papers. One copy of the shipping papers must accompany the hazardous materials shipment during transport. The other must be retained by the originating aircraft operator for a period of 90 days.

Notification of Pilot-in-Command

The operator of the aircraft in which a hazardous material is carried must provide the pilot-in-command with the following information — in writing — prior to departure:

- Proper description of the material — including proper shipping name, hazard class, identification number, and any other information required to be included with the description.

Reserved

- Total number of packages.
- Net quantity or gross weight of each package, except those containing Class 7 materials. For a shipment consisting of multiple packages containing the same hazmat, only the total quantity and an indication of the quantity of the largest and smallest package at each loading location need be provided.
- Location of packages aboard the aircraft.
- Confirmatio that no damaged or leaking packages have been loaded on the aircraft.
- For radioactive materials, the number of packages, overpacks, or freight containers, their category, transport index (if applicable), and their location aboard the aircraft.
- The date of the flight
- The telephone number of a person not aboard the aircraft from whom the information contained in the notificatio of pilot-in-command can be obtained. The aircraft operator must ensure the telephone number is monitored at all times the aircraft is in flight The telephone number is not required to be placed on the notificatio of pilot-in-command if the phone number is in a location in the cockpit available and known to the fligh crew.
- Confirmatio that the package must be carried only on cargo aircraft if its transportation aboard passenger-carrying aircraft is forbidden.
- An indication (when applicable) that a hazardous material is being carried under terms of a special permit.

This information, along with the required emergency response information, must be readily available to the pilot-in-command during flight

Additional Documentation: Vessel (Part 176, Subpart B)

The documentation that accompanies water vessel shipments of hazardous materials must be in compliance with the general requirements detailed in Part 172, as well as with the modal-specifi requirements detailed in Part 176. These additional requirements are summarized below.

Shipper's Certificatio

A hazardous materials shipment may only be accepted for transport by water vessel if the material has been properly described on the shipping papers and certifie by the shipper that it is in proper condition for transport. For import and export shipments which will not be transported by rail, air, or highway, the shipper may use the usual shipper's certificatio statement, or may certify that the hazardous material is properly classed, described, marked, packaged, and labeled in accordance with the *IMDG Code*.

Dangerous Cargo Manifest

A dangerous cargo manifest, list, or stowage plan must be prepared for vessel transport of hazardous materials. This document must include the following information:

- Name of vessel and official number (or in the absence of an official number, the international radio call number).
- Nationality of vessel.
- Shipping name and identificatio number of each hazardous material, as listed in U.S. Hazardous Materials Regulations or the *IMDG Code.*
- An emergency response telephone number.
- Number and description of packages.
- Gross weight for each type of packaging.
- Classificatio of the hazardous material as listed in U.S. Hazardous Materials Regulations or the *IMDG Code.*
- Any additional notations or descriptions required under "General Shipping Paper Requirements" (Part 172, Subpart C).
- Stowage location of the hazardous material on board.

When a vessel is used for the storage of hazardous materials, the following additional information is required:

- Name and address of vessel's owner.
- Location of vessel's mooring.
- Name of person in charge of the vessel.
- Name and address of the owner of the cargo.
- A complete record — by time intervals of one week — of all receipts and disbursements of hazardous materials, along with the name and address of the appropriate consignors and consignees.

The individual who supervises the preparation of the manifest, list, or stowage plan must certify the accuracy of the information by signing and dating the document. A second signature acknowledging the accuracy is required by the master, or by a licensed deck officer designated by the master and attached to the vessel. In the case of a barge, the person in charge of the barge must prepare the manifest.

The manifest, list, or stowage plan must be maintained during transport in a designated holder on, or near, the vessel's bridge. In addition, each carrier who transports or stores hazardous materials aboard a vessel must retain a copy of this document for a period of one (1) year.

Additional Documentation: Highway (Part 177)

The documentation that accompanies highway shipments of hazardous materials must be in compliance with the general requirements detailed in Part 172, as well as with the modal-specifi requirements detailed in Part 177. These additional requirements are summarized below.

Shipper's Certificatio

A carrier by highway may only accept hazardous materials for transport if the shipment is accompanied by properly prepared shipping papers.

An initial carrier may only accept the shipment if the shipper has certifie that the hazardous materials have been prepared in accordance with the applicable regulations. Except for hazardous waste, this shipper's certificatio is not required if:

- The shipment is to be transported entirely by private carriage, or
- In the case of bulk shipments, the shipment is to be transported in a cargo tank supplied by the carrier.

Interlining With Rail

When a motor carrier offers or delivers a freight container or transport vehicle to a rail carrier for further transport, the motor carrier must add the following notations to the shipping paper:

- A description of the container or vehicle.
- The type of placard affixed to the container or vehicle.

Proof of Registration

A motor carrier subject to PHMSA's registration requirements must carry on board each vehicle that is transporting a hazardous material requiring registration:

- A copy of the current Certificat of Registration, or
- Another document bearing the registration number identifie as the "U.S. DOT Hazmat Reg. No."

More information on the National Registration Program can be found under the GENERAL tab.

Carrier Emergency Information Contact

If a transport vehicle (semi-trailer or freight container-on-chassis) contains hazardous materials that require shipping papers and the vehicle is separated from its motive power and parked at a location [other than a facility operated by the consignor or consignee or a facility subject to the emergency response information requirements in §172.602(c)(2)] the carrier must:

- Mark the vehicle with the telephone number of the motor carrier on the front exterior near the brake hose and electrical connections, or on a label, tag, or sign attached to the vehicle at the brake hose or electrical connection; or
- Have the shipping paper and emergency response information readily available on the transport vehicle.

The above requirements do not apply if the vehicle is marked on an orange panel, a placard, or a plain white square-on-point configuratio with the identificatio number of each hazardous material contained within. The identificatio number(s) must be visible on the outside of the vehicle.

Enforcement

The intent of the Hazardous Materials Regulations is to make the handling and transport of hazardous materials safe for all who come into contact with the shipment. The information provided by shipping papers is essential to the safety of those individuals who come into contact with the shipment.

Of particular importance is the specifi identity and quantity of the hazardous material being transported. Also of key concern is the emergency number that can be called for specifi handling instructions and precautionary measures should the material spill or leak.

To stress the importance of compliance, DOT will issue fine for violations of the documentation requirements. Some of the more frequently-cited violations include:

- Failing to prepare a shipping paper.
- Failing to properly identify hazardous entries on a shipping paper that also includes non-hazardous entries.
- Failing to include the proper shipping name, hazard class, identificatio number, and/or packing group.
- Listing an improper proper shipping name, hazard class, identificatio number, and/or packing group.
- Including unauthorized information.
- Listing information out of sequence.
- Failing to properly identify “RQs”.
- Failing to provide the total quantity.
- Failing to include technical name(s) when required.
- Failing to list applicable exemption or special permit number(s).
- Failing to include or sign the required certification
- Failing to include a 24-hour emergency response number.
- Failing to staff the listed number.
- Listing a fraudulent 24-hour number.

- Listing a number which is not working or is incorrect.
- The required response information is not listed on, or provided with, the shipping paper.
- The response information provided is inappropriate for the material.

For more details on violations, see Guidelines for Civil Penalties under the ENFORCEMENT tab.

Reserved

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MARKING

Reserved

Overview

Markings provide important information about the contents of a packaging, freight container or transport vehicle and warn of the hazards posed by that material during transport.

Markings are different from labels even though they may be applied to packages like labels. Hazard warning labels relate the hazard class or division of the material contained in the package. Markings give additional information about the hazardous material in the package to help communicate the hazards.

Individuals responsible for loading, unloading, and storage rely on the information that markings and labels provide. Markings and labels are also used by emergency personnel to identify materials and to determine applicable response actions in the event of a spill, leak, or other such incident involving the material.

This section of the manual will familiarize you with the marking requirements for non-bulk and bulk packages, freight containers, and transport vehicles. Most marking requirements are found in Subpart D of Part 172. See the General tab for the definition of bulk and non-bulk. A detailed discussion of performance-oriented package markings can be found in the Packaging tab.

Marking (Section 172.300)

PHMSA's marking requirements apply to non-bulk and bulk packagings transported by rail, air, vessel, and highway. Certain requirements specificall apply to transport vehicles and freight containers.

The individual who prepares non-bulk packages of hazardous material for transport is responsible for marking the package. This responsibility includes:

- Checking that any relevant markings already displayed are in the correct location and meet PHMSA's specificatio requirements.
- Removing or obliterating any markings which are not applicable or which may reduce the effectiveness of the required markings.
- Applying any new markings in accordance with the regulations.

In most cases, the responsibility for marking bulk packagings, freight containers, and transport vehicles rests with the individual initiating the shipment. The carrier is responsible for replacing identificatio number markings that are lost, damaged, or destroyed during transit.

Unless otherwise specifie in a specifi rule, stocks of preprinted packagings marked in accordance with the HMR prior to the effective date of a fina rule may be continued in use until depleted, or for a one year period subsequent to the compliance date of the marking amendment, whichever is less.

Prohibited Markings (Section 172.303)

No packaging may be marked with a proper shipping name or identificatio number unless the packaging contains the identifie material or its residue.

Specification (Section 172.304 and 172.308)

To withstand the conditions normally encountered during transportation, all non-bulk markings must be:

- Durable,
- In English,
- Printed on, or affixed to, the surface of a package, or on a label, tag, or sign,
- Displayed on a background of sharply-contrasting color,
- Unobscured by labels or attachments, and
- Located away from any other markings — such as advertising — which could substantially reduce their effectiveness.

Abbreviations are usually not allowed in a proper shipping name marking. Two specifi exceptions include:

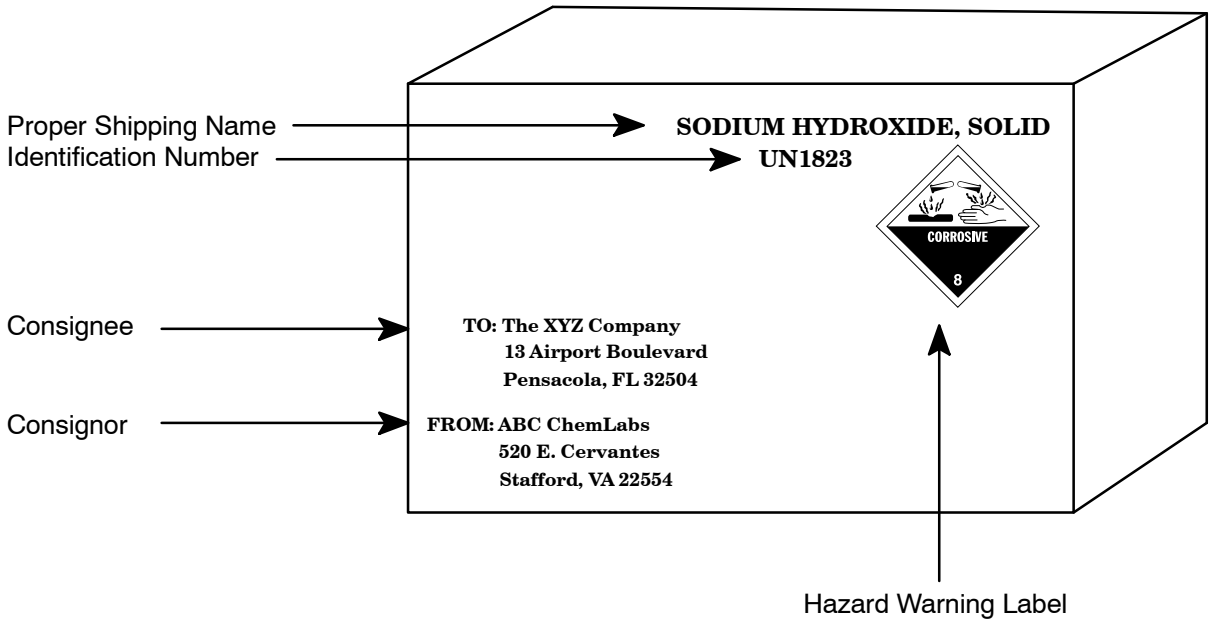
- "ORM" in place of "Other Regulated Material"; and
- Abbreviations which appear as part of the authorized description in Column 2 of the Section 172.101 Hazardous Materials Table.

Illustrations of common markings can be found on the Hazardous Materials Marking Chart at the end of this tabbed section.

Non-Bulk Markings (Section 172.301)

All non-bulk packagings must be "marked" with the following information:

- Proper shipping name;
- Technical names, when required;
- Identificatio number (preceded by "UN" or "NA" or "ID", as appropriate);
- Consignee's or consignor's name and address;
- DOT-SP when required.



Technical names

- Any packaging that contains hazardous materials described by a proper shipping name preceded by the symbol “G” in Column 1 of the Hazardous Materials Table must be marked with the technical name in association with the proper shipping name.

Example Flammable liquids, n.o.s. (ethanol)

Special permit packagings

- DOT-SP (followed by the special permit number) is required if the packaging is authorized for use under a special permit.

Example DOT–SP 9168

Exceptions

Identificatio numbers are not required on packages which contain only:

- limited quantities or
- ORM–D materials.

The consignee’s or consignor’s name and address are **not** required if:

- The package is transported by highway only, and will not be transferred from one motor carrier to another.

- The package is transported as part of a carload lot, truckload lot, or freight container load, and the entire contents of the rail car, truck, or freight container are shipped from one consignor to one consignee.

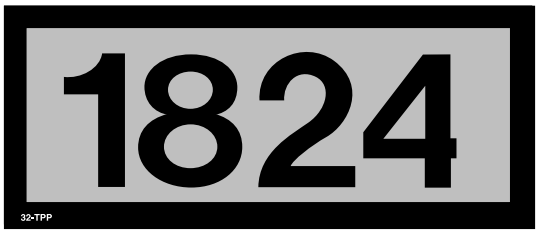
Bulk markings (Section 172.302)

Unless specificall excepted, all bulk packagings of hazardous materials must be marked with the identificatio number(s) of the contents. These numbers, unless otherwise provided, must be marked:

- On each end and each side of a packaging having a capacity of 3,785 L (1,000 gal) or more.
- On two opposite sides of a packaging with a capacity of less than 3,785 L (1,000 gal).
- On each end and each side of a tube-trailer motor vehicle.

There are three ways in which identificatio numbers may be displayed:

- On an orange panel



- Across the center of a primary hazard placard

- On a white square-on-point configuratio (diamond-shaped) — with the same outside dimensions as a placard (If the material is in a class that does not allow or require placards)

If the identificatio number markings on a portable tank or cargo tank are not visible, the transport vehicle or freight container used to transport the tank must also be marked with the numbers, on each side and each end.

When a tank is permanently installed within an enclosed cargo body of a transport vehicle or freight container, the identificatio number marking need only be displayed on each side and each end of the tank that are visible when the enclosed cargo body is opened or entered.

Special permit packagings

- DOT-SP (followed by the special permit number) is required if the packaging is authorized for use under a special permit.

Portable tanks (Section 172.326)

In addition to displaying the applicable identificatio number (as described above), portable tanks must be marked with:

- Material's proper shipping name — on two opposite sides
- Owner or lessee's name

Cargo tanks (Section 172.328) the sides and ends

In addition to the identificatio number, cargo tanks — except for certain nurse tanks — which are used to transport gases must be marked on each side and each end with the proper shipping name or appropriate common name of the gas.

Example CARBON DIOXIDE, REFRIGERATED LIQUID or REFRIGERANT GAS

Tank cars (Section 172.330)

In addition to the identificatio number, tank cars — when required by a special provision to the Hazardous Materials Table or by Section 172.330 — must be marked on each side with the proper shipping name or appropriate common name.

Example Special provision "B35" — one of the special provisions listed in Column 7 of the Hazardous Materials Table for "Hydrogen cyanide, stabilized, UN1051" states:

> "Tank cars containing hydrogen cyanide may be alternatively marked "Hydrocyanic acid, liquefied" if otherwise conforming to marking requirements in Subpart D of this part. Tank cars marked "HYDROCYANIC ACID" prior to October 1, 1991, do not need to be remarked."

In addition to the identificatio number, multi-unit tank car tanks must be marked on two opposing sides with the proper shipping name or appropriate common name.

If the proper shipping name for a hazardous material in a bulk packaging has been changed, it may not need to be remarked if:

- The bulk packaging was marked before October 1, 1991, in conformance with the Hazardous Materials Regulations in effect on September 30, 1991; and
- The marking contains the same key words as the current proper shipping name in the Section 172.101 Hazardous Materials Table.

Additional marking requirements

Additional markings may be required depending on the hazardous material being transported or the type of package used.

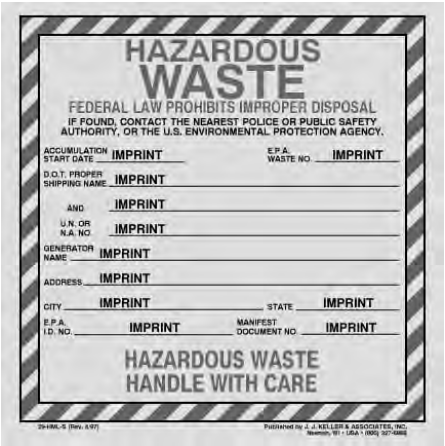
NON-ODORIZED marking (172.301, 172.326, 172.328 & 172.330)

After September 30, 2006, no person may offer for transportation or transport certain cylinders (2P, 2Q, 39), portable tanks, cargo tanks and tank cars containing unodorized liquefie petroleum gases (LPG) unless the packagings are legibly marked NON-ODORIZED or NOT ODORIZED.

- Cylinders must be marked by the proper shipping name.
- Portable tanks must be marked on two opposing sides near the proper shipping name or the placards.
- Cargo tanks must be marked on two opposing sides near the proper shipping name or the placards.
- Tanks cars and multi-unit tank car tanks must be marked on two opposing sides near the proper shipping name of the placards. The marking may appear on a tank car or multiunit tank car tank used for both unodorized and odorized LPG.

Hazardous wastes (Section 172.301(a)(2))

Proper shipping names marked on non-bulk packages of hazardous waste are not required to include the word "waste" if the following EPA marking is displayed in accordance with 40 CFR Section 262.32.



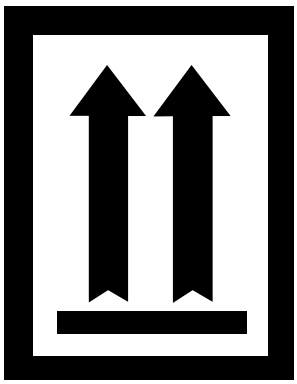
Radioactive materials (Section 172.310)

In addition to any other required markings, each package containing Class 7 (radioactive) materials must also be marked with:

- Gross mass, including the unit of measurement (which may be abbreviated), if the gross mass of the package exceeds 50 kilograms (110 pounds) on the outside of the package
- TYPE A , TYPE B(U), TYPE B(M), TYPE IP-1, TYPE IP-2, or TYPE IP-3, as appropriate and only if the package conforms to those types
- The international vehicle registration code of the country of origin of the design, if the package conforms to an IP-1, IP-2, IP-3, or a Type A package design
- With a radiation symbol that meets the requirements of the HMR, if the package conforms to a Type B(U) or Type B(M) package design
- USA in conjunction with the specificatio marking, if a Type B(U), Type B(M) or fissil material package is destined for export.

Liquids in combination packagings (Section 172.312)

Combination packagings that have inner packagings which contain liquid hazardous materials, single packagings fitte with vents (mandatory January 1, 2008), or open cryogenic receptacles intended for the transport of liquifie gases (mandatory January 1, 2008) must be legibly marked with orientation arrows. The arrows must be displayed on two opposite vertical sides of the packaging — with the arrows pointing in the correct upward direction.



The arrows must be either black or red on white or other suitable contrasting background and commensurate with the size of the packege (mandatory January 1, 2008). Depicting a rectangular border around the arrows is optional.

Orientation arrows are not required on packages which contain:

- Inner packagings of cylinders.
- Flammable liquids in inner packagings of one liter or less prepared in accordance with Section 173.150(b) or (c), except for transport by air.
- Flammable liquids in inner packagings of 120 ml (4 flui oz) or less prepared in accordance with Section 173.150(b) or (c), when packed with sufficient absorption material between the inner and outer packagings to completely absorb the liquid contents, when transported by air.
- Liquids contained in manufactured articles (e.g., alcohol or mercury in thermometers) which are leak-tight in all orientations.
- Non-bulk hermetically-sealed inner packagings not exceeding 500 ml each.
- Packages containing liquid infectious substances in primary receptacles not exceeding 50 ml.
- Class 7 radioactive material in Type A, IP-2, IP-3, Type B(U) or Type B(M) packages.

Inhalation hazards (Section 172.313)

Packagings which contain materials poisonous-by-inhalation must be marked “INHALATION HAZARD” in association with the required labels or placards or the proper shipping name. The INHALATION HAZARD marking is not required if the package bears a poison gas or poison inhalation hazard label (or placard), displaying the words “inhalation hazard.”

INHALATION HAZARD

This marking on bulk packages must be on two opposite sides, and have a minimum width of 6.0 mm (0.24 inches) and a minimum height of:

- 100 mm (3.9 inches) for rail cars
- A minimum width of 4.0 mm (0.16 inch) and a minimum height of 25 mm (1.0 inch) for portable tanks with capacities of less than 3,785 L (1,000 gal) and intermediate bulk containers
- 50 mm (2.0 inches) for cargo tanks and other bulk packagings

Poisonous Hazardous Materials (Section 172.313)

Non-bulk plastic outer packagings used as single or composite packagings for Division 6.1 materials must be permanently marked with the word “POISON” — either by embossing or other durable means. This marking must be at least 6.3 mm (0.25 in) in height and located within 150 mm (6 in) of the closure of the packaging.

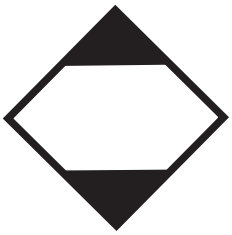
A package containing a Division 6.1 (poison) material in Packing Group III may be marked “PG III” adjacent to the POISON label.

Limited Quantities (Section 172.315)

A package containing a limited quantity must be marked with the proper shipping name and identificatio number

OR

Must be marked with the square-on-point limited quantity marking as shown below left (packages meeting the requirements for air transport must be marked with the square-on-point “Y” limited quantity marking as shown below right)



OR

Except for transportation by aircraft and until December 31, 2013, a package containing a limited quantity may continue to be marked in accordance with the requirements in effect on

October 1, 2010 (i.e., square-on-point with identificatio number), as an alternative to the new marking required. For transportation by aircraft and until December 31, 2012, a package containing a limited quantity may continue to be marked in accordance with the requirements in effect on October 1, 2010 (i.e., square-on-point with identificatio number), as an alternative to the new marking required.

Except for transportation by aircraft and until December 31, 2013, a packaging marked in accordance with §172.316 is not required to be marked with the new limited quantity marking required. For transportation by aircraft and until December 31, 2012, a packaging marked in accordance with §172.316 may not be marked with the new limited quantity "Y" marking required unless it also conforms to §173.27(f).

ORM-Ds (Section 172.316)

Packagings that contain a material classed as a consumer commodity (ORM-D) must be marked on at least one side or end with the ORM-D designation — immediately following or below the proper shipping name. If the shipment is to be by air, the marking must be ORM-D-AIR.

Both the ORM-D and ORM-D-AIR markings must be within a rectangle that is approximately 6.3 mm (0.25 in) larger on each side than the designation.

Before January 1, 2013, an air shipment that meets the requirements for an ORM-D may be marked with ORM-D-AIR. Starting January 1, 2013, only the appropriate square-on-point limited quantity marking may be used.

Before January 1, 2014, packages of ORM-D material may be marked with the ORM-D marking. Starting January 1, 2014, only the appropriate square-on-point limited quantity marking may be used.

KEEP AWAY FROM HEAT Handling Mark (172.317)

For transportation by aircraft, each package containing Division 4.1 self-reactive substances or Division 5.2 organic peroxides must be marked with the KEEP AWAY FROM HEAT marking.

The marking must be durable, legible, and displayed on a background of contrasting color.

Marine Pollutants (Section 172.322)

Non-bulk packagings which contain marine pollutants and are offered for transportation by vessel must be marked with:

- The name of the component(s) in parentheses which make the material a marine pollutant — if the proper shipping name does not identify the component(s).
- The MARINE POLLUTANT mark, shown below and effective January 14, 2010, in association with the required hazard warning label(s) or in the absence of labels, in association with the proper shipping name.

Bulk packagings (3,785 L (1,000 gallons) or more) which contain marine pollutants must be marked on each side and each end with the marine pollutant marking. A bulk packaging (less than 3,785 L (1,000 gallons)) must be marked on two opposing sides with the marine pollutant marking. Except for transportation by vessel, a bulk packaging that bears a label or placard is not required to display this marking.

The symbol, letters, and border must be black on a white background, or be of a contrasting color to the surface on which the marking is displayed. Each side of the marking must be at least 100 mm (3.9 inches) for bulk packagings with a capacity of less than 3,785 L (1,000 gallons) and at least 250 mm (9.8 inches) for all other bulk packagings.

The MARINE POLLUTANT mark **is not** required on single packagings or combination packagings where each single package or each inner packaging of combination packagings has a net quantity of 5 L (1.3 gallons) or less for liquids or a net mass of 5 kg (11 pounds) or less for solids.

The MARINE POLLUTANT mark **is not** required on a combination packaging containing a marine pollutant other than a severe marine pollutant in inner packagings each that contains 5 L (1.3 gallons) or less net capacity for liquids or 5 kg (11 pounds) or less net capacity for solids.

The MARINE POLLUTANT mark **is not** required on a package that is marked with a square-on-point limited quantity marking.

Infectious Substances (Section 172.323)

A bulk packaging containing a regulated medical waste must be marked with a BIOHAZARD marking:

- On two opposing sides or two ends other than the bottom if the packaging has a capacity of less than 3,785 L (1,000 gallons). The BIOHAZARD marking must measure at least 152.4 mm (6 inches) on each side and must be visible from the direction it faces.
- On each end and each side if the packaging has a capacity of 3,785 L (1,000 gallons) or more. The BIOHAZARD marking must measure at least 152.4 mm (6 inches) on each side and must be visible from the direction it faces.
- For a bulk packaging contained in or on a transport vehicle or freight container, if the BIOHAZARD marking on the bulk packaging is not visible, the transport vehicle or freight container must be marked as required on each side and each end.
- The background color for the BIOHAZARD marking must be orange and the symbol and letters must be black. Except for size, the BIOHAZARD marking must appear as follows:

- The BIOHAZARD marking must be displayed on a background of contrasting color. It may be displayed on a plain white square-on-point configuratio having the same outside dimensions as a placard.

Hazardous Substances (Section 172.324)

Non-bulk packagings which contain a reportable quantity of a hazardous substance must be marked with the letters “RQ” in association with the proper shipping name.

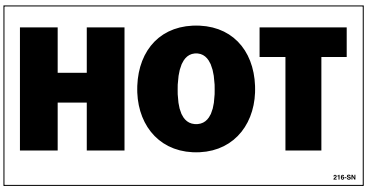
If the proper shipping name of a material that is a hazardous substance does not identify the substance by name, the name of the substance must be marked on the package (in parentheses) in association with the proper shipping name.

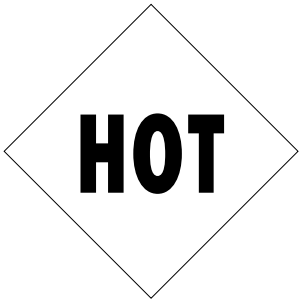
Example RQ, ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
SOLID, N.O.S. (DIAZINON), UN3077

Elevated temperature materials (Section 172.325)

Most bulk packagings which contain an elevated temperature material must be marked on two opposing sides with the word “HOT” — in black or white Gothic lettering on a contrasting background. This marking must be displayed on the packaging itself or in black lettering on a white square-on-point configuratio that is the same size as a placard.

Bulk packagings that contain molten aluminum or molten sulfur must be marked “MOLTEN ALUMINUM” or “MOLTEN SULFUR” as appropriate, instead of with the word “HOT”.





For bulk packagings that must be marked, HOT, MOLTEN ALUMINUM, or MOLTEN SULFUR the letters must be at least:

- 100 mm (3.9 inches) for rail cars
- 25 mm (1.0 inch) for portable tanks with capacities of less than 3,785 L (1,000 gal)
- 50 mm (2.0 inches) for cargo tanks and other bulk packagings

The regulations also allow the combining of the “HOT” marking and the identificatio number marking on the same white square-on-point configuration In this case, the identificatio number must be displayed in the center of the white square-on-point configuratio and the word “HOT” must be displayed in the upper corner. The word “HOT” must be in black letters having a height of at least 50 mm (2.0 inches).

Markings for overpacks (Section 173.25)

Each overpack must be marked with the proper shipping names, identificatio numbers, and labeled for the materials contained within, unless the markings and labels on the inside packages are visible.

Each overpack that contains packages subject to the orientation marking requirements must be marked with orientation arrows on two opposite vertical sides, with the arrows pointing in the correct upward direction and each package in the over-pack must be packed with its fillin hole(s) up.

Overpacks must be marked with the word "OVERPACK" when specificatio packagings are required, unless the specificatio markings on the inside packagings are visible.

Each overpack containing packages of limited quantities or ORM-Ds must be marked "OVERPACK" **unless** all required markings are visible through the overpack.

Each overpack containing excepted quantities must be marked with the required markings for the inside packages **unless** all the required markings are visible through the overpack. However, overpacks of excepted quantities are not required to be marked "OVERPACK."

Marking transport vehicles and freight containers

Large quantities of non-bulk packages (Section 172.301)

A transport vehicle or freight container containing only a single hazardous material in non-bulk packages must be marked, on each side and each end with the identificatio number specifie for the material, subject to the following:

- Each package must be marked with the same proper shipping name and identificatio number;
- The aggregate gross weight of the hazardous material is 4,000 kg (8,820 lb) or more;
- All of the hazardous material is loaded at one loading facility; and
- The transport vehicle or freight container contains no other material, hazardous or non-hazardous.

Exceptions

Identificatio numbers are not required on transport vehicles or freight containers that are loaded, at one loading facility, with 4,000 kg (8,820 lb) or more of non-bulk packagings all having the same shipping name and identificatio number, if the materials are:

- Class 1 materials;
- Class 7 materials; or
- Non-bulk packagings for which identificatio numbers are not required.

Poison inhalation hazards (Section 172.313)

A transport vehicle or freight container loaded at one loading facility with 1,000 kg (2,205 lb) or more of non-bulk packages containing a material poisonous by inhalation (in Hazard Zone A or B), having the same shipping name and identificatio number, must be marked with the identificatio number specifie for the material, on each side and each end.

If the transport vehicle or freight container contains more than one inhalation hazard material that meets the above identificatio number marking requirement, it must be marked with the identificatio number for only one material. That one identificatio number is determined by the following:

- For different materials in the same hazard zone, the identificatio number of the material having the greatest aggregate gross weight.
- For different materials in both Hazard Zone A and B, the identificatio number for the Hazard Zone A material.

Carrier emergency information contact (Section 172.606)

If a transport vehicle (semi-trailer or freight container-on-chassis) contains hazardous materials that require shipping papers and the vehicle is separated from its motive power and parked at a location [other than a facility operated by the consignor or consignee or a facility subject to the emergency response information requirements in §172.602(c)(2)] the carrier must:

- Mark the vehicle with the telephone number of the motor carrier on the front exterior near the brake hose and electrical connections, or on a label, tag, or sign attached to the vehicle at the brake hose or electrical connection; or
- Have the shipping paper and emergency response information readily available on the transport vehicle.

The above requirements do not apply if the vehicle is marked on an orange panel, a placard, or a plain white square-on-point configuratio with the identificatio number of each hazardous material contained within. The identificatio number(s) must be visible on the outside of the vehicle.

Fumigated lading (Section 173.9)

Each truck body or trailer, rail car, or freight container containing lading that has been fumigated or treated with any material must have a FUMIGANT marking displayed so that it can be seen by any person attempting to enter the vehicle or container.

The printing on the FUMIGANT marking must be red. The size of the white background must be at least 30 cm (11.8 inches) wide and at least 25 cm (9.8 inches) high. The technical name of the fumigant, must be entered in the appropriate place (*) on the marking.

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LABELING

Reserved

Overview

Hazardous materials warning labels are printed on or affixed to packages containing hazardous materials. Hazard warning labels are color and symbol-coded to provide easy and immediate warning of a material's hazards. The regulations give specific instruction on the placement, specifications, prohibitions, and exceptions for labeling. The guidelines for labeling are found in Subpart E of Part 172.

Labeling (Part 172, Subpart E)

PHMSA's labeling requirements apply primarily to non-bulk packagings — although the following must also display labels if they are not properly placarded:

- Bulk packagings — other than cargo tanks, portable tanks, or tank cars — with a volumetric capacity of less than 18 m^3 (640 ft^3).
- Portable tanks of less than 3,785 L (1,000 gal) capacity.
- DOT Specification 106 or 110 multi-unit tank car tanks.
- Overpacks, freight containers, or unit load devices of less than 18 m^3 (640 ft^3), which contain a package for which labels are required.

Shipper Responsibility

The responsibility for labeling rests with the individual who is offering the hazardous material for transportation. This responsibility includes:

- Determining the appropriate primary and subsidiary labels for the material.
- Removing or obliterating any irrelevant labels already on the package.
- Using labels which meet the specification requirements.
- Affixing labels in the proper location.

Carrier Responsibility

Although the shipper is responsible for the actual labeling, the carrier also has labeling responsibilities. A carrier must only accept and transport packages that have been properly labeled.

Determining Labels (Section 172.400)

Once a material has been classified and a proper shipping name has been selected, determining the appropriate hazard warning labels is a fairly easy process.

(1) Locate the selected proper shipping name in Column 2 of the Hazardous Materials Table (Section 172.101).

(2) Refer to Column 6 of the Table for the appropriate label code(s).

(3) The first label code listed indicates the material's primary hazard. Any additional label codes indicate subsidiary hazards.

(4) Using the label codes from Column 6 in the Table, find the name of the label(s) required to be on the package in the LABEL SUBSTITUTION TABLE in section 172.101(g).

Except for 6.1, the label codes are the same as the hazard classes or divisions for labels. For example, a 2.3 label code is a 2.3 (poison gas) label, a 3 label code is a Class 3 (flammable liquid) label, and a 5.1 label code is a 5.1 (oxidizer) label.

For the label code 6.1, there are two possible labels. The label that must be used depends on if the material is an inhalation hazard (Zone A or B).

SAMPLE FROM THE LABEL SUBSTITUTION TABLE

Label code	Label name
5.2	Organic Peroxide.
6.1 (inhalation hazard, Zone A or B)	Poison inhalation Hazard.
6.1 (other than inhalation hazard, Zone A or B)[2]	Poison.
6.2	Infectious Substance.

If the material has more than one hazard, all applicable subsidiary labels may not be listed in the Table (such as generic or n.o.s. shipping names). If this is the case, subsidiary labels must be determined according to the regulations, this will be discussed in the following section.

If there is a reasonable doubt as to the class and labeling requirements for a material and this can only be determined by testing, it may be labeled according to a tentative class assignment. This assignment must be based on the following:

- Hazard class definitions;
- Hazard precedence found in Section 173.2a; and
- Shipper's knowledge of the material.

Exceptions (Section 172.400a)

Not all non-bulk packages of hazardous materials will require hazard warning labels. Labels are not required on the following:

- A cylinder or Dewar flask (§173.320) containing Division 2.1, 2.2, or 2.3 material that is not overpacked, and is durably and legibly marked in accordance with CGA Pamphlet C-7, Appendix A.
- A package or unit of military explosives — including ammunition — shipped by or on behalf of the U.S. Department of Defense (DOD) when:
  - (1) in freight container-load, car-load or truck-load shipments, if loaded and unloaded by the shipper or DOD; or
  - (2) in unitized or palletized break-bulk shipments by cargo vessel under charter to DOD, if at least one required label is displayed on each unitized or palletized load.
- A package of hazardous materials — other than ammunition — that is loaded and unloaded under the supervision of DOD personnel and is escorted by DOD personnel in a separate vehicle.
- A compressed gas cylinder which is permanently mounted in or on a transport vehicle.
- A freight container, aircraft unit load device, or portable tank which is placarded in accordance with Subpart F or conforms to paragraph (a)(3) or (b)(3) of 49 CFR 172.512.
- An overpack or unit load device in or on which labels that represent the hazard(s) inside are visible.
- A package of low specific-activity radioactive material or surface contaminated objects when transported under Section 173.427(a)(6).
- Certain exceptions for labeling requirements are provided for small quantities and limited quantities in Part 173.
- A package containing a PIH material in a closed transport vehicle or freight container may be excepted from labeling or placarding under certain conditions in 49 CFR 171.23.
- Notwithstanding the provisions of 49 CFR 172.402(a), a Division 6.1 subsidiary hazard label is not required on a package containing a Class 8 (corrosive) material that has a subsidiary hazard of Division 6.1 (poisonous) if the toxicity of the material is based solely on the corrosive destruction of tissue rather than systemic poisoning. In addition, a Division 4.1 subsidiary hazard label is not required on a package bearing a Division 4.2 label.

Limited quantities

There are also exceptions to labeling for limited quantities in the following sections:

- Section173.150 - Exceptions for Class 3 (flammable and combustible liquids)

- Section 173.151 - Exceptions for Division 4.1 (flammable solids)
- Section 173.152 - Exceptions for Division 5.1 (oxidizers) and 5.2 (organic peroxides)
- Section 173.154 - Exceptions for Class 8 (corrosives)
- Section 173. 155 - Exceptions for Class 9 (miscellaneous)

Prohibited Labeling (Section 172.401)

No package may be labeled with a hazard warning label specified in the Hazardous Materials Regulations unless the package contains the hazardous material and the label represents the hazard of the material in the package.

Packages may not be offered for transportation or transported with a marking or label that could be confused with or conflicts with the labels that are required unless the package is labeled in conformance with:

- The United Nations Recommendations;
- The IMDG Code;
- The ICAO Technical Instructions;
- The TDG Regulations; or
- The Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Primary and Subsidiary Labels (Section 172.402)

There are two types of hazard warning labels:

- **Primary** hazard labels are those which indicate a material's most hazardous property.
- **Subsidiary** hazard labels are those which indicate a material's other less hazardous properties.

Primary Label

Subsidiary Label

When primary and subsidiary hazard labels are required, they must be displayed next to each other — within 150 mm (6 inches) of one another.

Example: "Articles pressurized, pneumatic *or* hydraulic," is a Division 2.2 material for which Column 6 indicates the label code to be 2.2 (NON-FLAMMABLE GAS).

Sample from the Hazardous Materials Table

Symbols (1)	Hazardous materials descriptions and proper shipping names (2)	Hazard class or Division (3)	Identification Numbers (4)	PG (5)	Label Codes (6)
	Articles, pressurized pneumatic *or* **hydraulic** *containing non-flammable gas*	2.2	UN3164		2.2

Example: "Isopropylamine" is a Class 3 material which also meets the definition of a Class 8 material. Column 6 indicates two label codes, 3 and 8. Two labels are required.

Sample from the Hazardous Materials Table

Symbols (1)	Hazardous materials descriptions and proper shipping names (2)	Hazard class or Division (3)	Identification Numbers (4)	PG (5)	Label Codes (6)
	Isopropylamine	3	UN1221	I	3, 8

Primary

Subsidiary

Example: "Isopropyl chloroformate" is a Class 6.1 material which also meets the definition of a Class 3 and Class 8 material. Column 6 indicates three label codes, 6.1, 3, and 8.

Sample from the Hazardous Materials Table

Symbols (1)	Hazardous materials descriptions and proper shipping names (2)	Hazard class or Division (3)	Identification Numbers (4)	PG (5)	Label Codes (6)	Special provisions (7)
	Isopropyl chloroformate	6.1	UN2407	I	6.1, 3, 8	2, B9, B14, B32, B74, B77, T20, TP2, TP13, TP38, TP44

Since 6.1 is listed you must look at Column 5 of the Table for the Packing Group, in this case it is a PG I. Is this material an inhalation hazard? Column 7 of the Table (special provisions) lists a 2. Special Provision 2 identifies this material as poisonous by inhalation (Zone B).

The three labels required are:

Primary

Subsidiary

Subsidiary

Class-Specific Requirements

If the material has more than one hazard, all applicable subsidiary labels may not be listed in the Table, such as for generic or n.o.s. shipping names. If this is the case, subsidiary labels must be determined as follows:

Class 1 materials

Each package of Class 1 material that also meets the definition for:

- Division 6.1, Packing Group I or II, must be labeled with a POISON or POISON INHALATION HAZARD, as appropriate, subsidiary label.
- Class 7 must be labeled with the appropriate RADIOACTIVE subsidiary label.

Division 2.2 materials

Each package of Division 2.2 material that also meets the definition for an oxidizing gas (see Section 171.8 of this subchapter) must be labeled with a subsidiary OXIDIZER label.

Division 2.3 materials

Each package of Division 2.3 material that also meets the definition for:

- Division 2.1, must be labeled with a subsidiary FLAMMABLE GAS label;
- Division 5.1, must be labeled with a subsidiary OXIDIZER label; and
- Class 8, must be labeled with a subsidiary CORROSIVE label.

Other than class 1 or 2 materials

Each package of hazardous material that has one or more of the following subsidiary hazards must be labeled with subsidiary labels in accordance with the table:

Subsidiary Hazard Level (Packing Group)	Subsidiary Hazard (Class or Division)						
	3	4.1	4.2	4.3	5.1	6.1	8
I	X	***	***	X	X	X	X
II	X	X	X	X	X	X	X
III	*	X	X	X	X	X	X

X—Required for all modes.
*—Required for all modes, except for a material with a flash point at or above 38° C (100° F) transported by rail or highway.
**—[Reserved]
***—Impossible as subsidiary hazard.

Class 7 materials

For a package containing a Class 7 material that also meets the definition of one or more additional hazard classes, whether or not the material satisfies 49 CFR

173.4a(b)(7), a subsidiary label is not required on the package if the material conforms to the remaining criteria in 49 CFR 173.4a.

Additional Labeling Requirements

Additional labels may be required depending on the material being shipped or the conditions of transport.

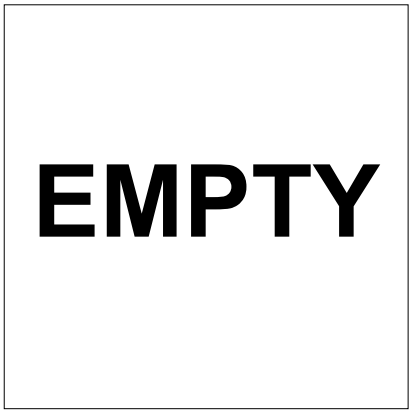
Cargo Aircraft Only (Section 172.402(c))

Materials of a type or quantity that may only be transported on cargo aircraft must display the CARGO AIRCRAFT ONLY label. For consistency with international regulations, the CARGO AIRCRAFT ONLY label has been revised. The text has been revised to read "Forbidden in Passenger Aircraft." Continued use of the label conforming to the specifications in 49 CFR 172.448 on December 31, 2008, may be used until January 1, 2013.

Example This label would be required for any package of "Isobutyl formate" containing more than 5 liters, since the quantity limitation listed in Column 9A of the Hazardous Materials Table for passenger aircraft is 5 liters.

Empty Label (Section 172.403)

In most instances, a package which has been emptied, but not purged of the hazardous material residue, must remain labeled the same as when it was full. However, packages which contain the residue of radioactive material can be excepted from most of the hazardous materials regulations if they meet certain requirements (see Section 173.428). One of the requirements is that labels that were previously applied must be removed or obliterated and the EMPTY label must be applied.



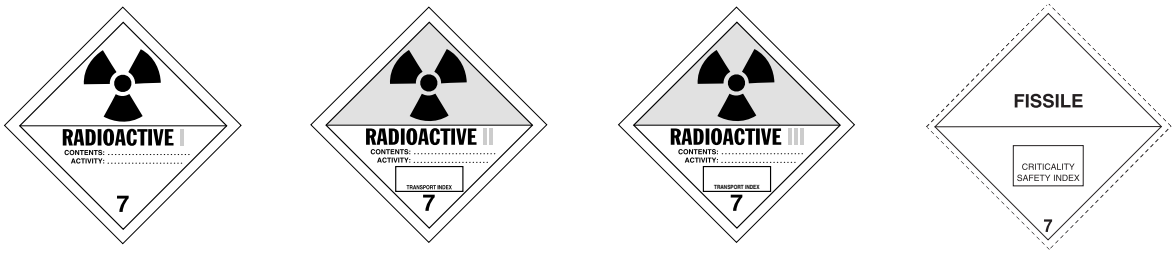
Fissle Label (Section 172.402(d))

Each package or overpack containing fissil material, other than fissile-excepte material must bear two FISSILE labels affixed to opposite sides of the package or overpack that conforms to the figur shown in 49 CFR172.441; such labels, where applicable, must be affixed adjacent to the labels for radioactive materials.

Radioactive Labels (Section 172.403)

Radioactive labels are unique in that the regulations require that specifi information be printed (manually or mechanically) on the labels. This information (CONTENTS, ACTIVITY, and TRANSPORT INDEX) is specifi to each individual package.

There are four hazard warning labels used to identify radioactive materials:



Each of the firs three labels contain a space for “CONTENTS” and “ACTIVITY.” In addition, the RADIOACTIVE II and III labels include a box for the “TRANSPORT INDEX.” These entries must be completed by legible printing (manual or mechanical), using a durable weather-resistant means of marking.

CONTENTS — Except for LSA-I material, the names of radionuclides as contained in Section 173.435 (symbols such as “^{99}Mo” and “^{60}Co” are authorized). For mixtures, with consideration of space on the label, the radionuclides that must be shown are determined by 173.433(g). For LSA-I material, the term “LSA-I” may be used in place of the names of the radionuclides. radiouclides.

Sample from the Table of A_1 and A_2 values for radionuclides.							
Symbol of radionuclide	Element and atomic number	A_1 (TBq)	A_1 (Ci)	A_2 (TBq)	A_2 (Ci)	Specific activity	
						(TBq/g)	(Ci/g)
Ac-225 (a) . . .	Actinium (89) .	8.0×10^{-1}	2.2×10^{1}	6.0×10^{-3}	1.6×10^{-1}	2.1×10^{3}	5.8×10^{4}
Ac-227 (a) . . .	. . . . .	9.0×10^{-1}	2.4×10^{1}	9.0×10^{-5}	2.4×10^{-3}	2.7	7.2×10^{1}
Ac-228	. . . . .	6.0×10^{-1}	1.6×10^{1}	5.0×10^{-1}	1.4×10^{1}	8.4×10^{4}	2.2×10^{6}
Ag-105	Silver (47) . . .	2.0	5.4×10^{1}	2.0	5.4×10^{1}	1.1×10^{3}	3.0×10^{4}
Ag-108m (a) .	. . . . .	7.0×10^{-1}	1.9×10^{1}	7.0×10^{-1}	1.9×10^{1}	9.7×10^{-1}	2.6×10^{1}
Ag-110m (a) . .	. . . . .	4.0×10^{-1}	1.1×10^{1}	4.0×10^{-1}	1.1×10^{1}	1.8×10^{2}	4.7×10^{3}

ACTIVITY — Units expressed in appropriate SI units (abbreviations are authorized). Appropriate curie units may be used if SI units are also used.

Units	Abbreviations
becquerels	Bq
terabecquerels	TBq
curies	Ci
millicuries	mCi
microcuries	µCi

TRANSPORT INDEX — The degree of control required in transportation.

§173.403 Definitions

For the purpose of this Subpart—

A_1 means the maximum activity of special form Class 7 (radioactive) material permitted in a Type A package. This value is either listed in §173.435 or may be derived in accordance with the procedures prescribed in §173.433.

A^2 means the maximum activity of Class 7 (radioactive) material, other than special form material, LSA material, and SCO, permitted in a Type A package. This value is either listed in §173.435 or may be derived in accordance with the procedures prescribed in §173.433.

Closed transport vehicle means a transport vehicle or conveyance equipped with a securely attached exterior enclosure that during normal transportation restricts the access of unauthorized persons to the cargo space containing the Class 7 (radioactive) materials. The enclosure may be either temporary or permanent, and in the case of packaged materials may be of the "see-through" type, and must limit access from top, sides, and bottom.

Containment system means the assembly of components of the packaging intended to retain the Class 7 (radioactive) material during transport.

Refer to §173.403 for a complete listing of definitions

Mixed and Consolidated Packagings (Section 172.404)

When hazardous materials having different hazard classes are packed within the same packaging — or the same outside container or overpack (as authorized by the regulations) — the packaging, outside container, or overpack must be labeled as required for each class of the material contained within.

When two or more packages containing compatible hazardous materials are placed within the same outside container or overpack, the outside container or overpack must be labeled for each class of material contained within the outside container or overpack.

Example "2-Bromobutane" (a Class 3, PG II material), "Benzyl iodide" (a Division 6.1, PG II material), and "Diethylbenzene" (a Class 3, PG III material) are all packed in one wooden box. The box must display two labels — a FLAMMABLE LIQUID label and a POISON label.

Label Modification (Section 172.405)

Text is not required on a primary or subsidiary label for Classes 1, 2, 3, 4, 5, 6, and 8. However, the label must meet the other specification in the regulations.

The OXIDIZER label may be modifie for packages of hazardous materials with the proper shipping name “Oxygen, refrigerated liquid” or “Oxygen, compressed”. The word “OXIDIZER” may be replaced with “OXYGEN” and the Division number “5.1” with “2”. The word “OXYGEN” must appear on the label.

The POISON label may be modifie for packages of hazardous materials in Division 6.1, PG III. The text “PG III” may be displayed instead of “POISON” or “TOXIC” below the midline of the label.

Label Placement (Section 172.406)

A label placed on a package of hazardous materials must be clearly visible and not obscured by markings or attachments. Each label must be printed on or affixed to a background of contrasting color, or must have a dotted or solid line outer border.

The label must be printed on or affixed to a surface (other than the bottom) of the package containing the hazardous material. The label must be located on the same surface of the package as the proper shipping name marking and it must be near the proper shipping name marking.

However, a label may be printed on or placed on a securely affixed tag, or may be affixed by other suitable means to:

- A package that contains no radioactive material and which has dimensions less than those of the required label; or
- A cylinder; or
- A package which has such an irregular surface that a label cannot be satisfactorily affixed.

Except as discussed in the following section, duplicate labeling is not required on a package. This means that only one of each different required label would have to be on the package. You would not have to display the same label on two sides or ends, or all four sides and the top of the package.

Duplicate labeling

Generally, only one of each different required label must be displayed on a package. However, duplicate labels must be displayed on at least two sides or two ends (other than the bottom) of the following:

- Each package or overpack having a volume of 1.8 m^3 (64 cubic feet) or more;
- Each non-bulk package containing a radioactive material;
- Each DOT 106 or 110 multi-unit tank car tank. Labels must be displayed on each end;
- Each portable tank of less than 3,785 L (1000 gallons) capacity; and
- Each freight container or aircraft unit load device having a volume of 1.8 m^3 (64 cubic feet) or more, but less than 18 m^3 (640 cubic feet). One of each required label must be displayed on or near the closure.
- An IBC having a volume of 1.8 m^3 (64 cubic feet) or more.

A primary and subsidiary label must be displayed next to each other when both are required. Labels must be printed on or affixed to a background of contrasting color or must have a dotted or solid line outer border.

Specification (Section 172.407)

To comply with the Hazardous Materials Regulations, all hazard warning labels must meet the following specifications

- Labels must be durable and weather-resistant.
- Each diamond-shaped label must be a minimum size of 100 mm (3.9 inches) on each side — with each side having a solid-line inner border 5.0 to 6.3 mm (0.2 to 0.25 inches) from the edge.
- The printing, inner border, and symbol on each label must be as shown in the regulations.

- Specification for color must be as prescribed in Appendix A to Part 172.
- The specifie color must extend to the edge of the label (with a few exceptions), as prescribed for each label.
- The symbol, text, numbers, and border of a label must be black — except that white may be used on a label with a one color background of green, red, or blue. White must be used for the text and class number for the CORROSIVE label and may be used for the symbol for the ORGANIC PEROXIDE label.
- The hazard class or division number must be at least 6.3 mm (0.25 inches) and not greater than 12.7 mm (0.5 inches).
- When text is displayed, in must be in letters measuring at least 7.6 mm (0.3 inches) in height, with a few exceptions.
- Labels may contain form identificatio information — including the name of the maker — provided that such information is printed outside of the solid-line inner border in no larger than 10-point type.

A label conforming to specification in the *UN Recommendations* may be used in place of a corresponding label conforming to specification in the U.S. Hazardous Materials Regulations.

Illustrations of all the labels can be found on the Hazardous Materials Labeling Chart at the end of this tabbed section.

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PLACARDING

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Overview

Hazardous materials placards correspond very closely with the shape, color and design of the hazardous materials warning labels. Placards alert persons to the potential dangers associated with the particular hazardous material contained in a motor vehicle, rail car, freight container, cargo tanks, and portable tanks. Placards also serve to guide emergency personnel in their actions to minimize the potential of accidents involving hazardous materials. The guidelines for placarding are found in Subpart F of Part 172.

Placarding (Part 172, Subpart F)

The placarding requirements apply to each person who offers for transport or transports hazardous materials. The placarding requirements do not apply to the following materials:

- Infectious substances.
- Materials classed as ORM-D.
- Materials authorized to be transported as “Limited Quantities” (when properly identifie on the shipping papers, in accordance with 49 CFR 172.203 or when marked in accordance with 49 CFR 172.315).
- Hazardous materials packaged as small quantities under the provisions of 49 CFR 173.4, 173.4a, 173.4b.
- Materials prepared in accordance with Section 173.13 (Exceptions for Classes 3, 8, 9, and Division 4.1, 4.2, 4.3, 5.1, 6.1).
- Combustible liquids in non-bulk packagings.

Placards are used to identify the hazard of any quantity of materials contained in bulk packagings, freight containers, unit load devices, transport vehicles, or rail cars. The responsibility for affixing or supplying placards varies according to the mode of transport and the type of packaging used to transport the hazardous material.

Bulk packagings (Section 172.514)

The person who offers a bulk packaging containing hazardous material for transportation is required to affix the placards required prior to or at the time the packaging is offered for transportation.

Freight containers and aircraft unit load devices (Section 172.512)

Each person who offers for transportation and each person who loads and transports a hazardous material in a freight container or aircraft unit load device is required to affix the placards specified

Transport vehicles (Section 172.506)

When a hazardous material is offered for transport by highway, the individual offering the material must provide the carrier with the required placards — prior to, or at the same time, the material is offered for transport — unless the appropriate placards are already affixed to the vehicle.

According to Section 177.823, the carrier may not move the vehicle until he or she has affixed the required placards — unless it is an emergency situation and one of the following three conditions are met:

- The vehicle is escorted by a representative of state or local government.
- The carrier has received permission from DOT to move the vehicle.
- Movement of the vehicle is necessary to protect life and property.

Rail cars (Section 172.508)

When a hazardous material is offered for transport by rail, the individual offering the material must affix the required placard(s) to the rail car — unless the car is already properly placarded. The rail carrier may not accept a rail car for transport unless the required placards are affixed.

Prohibited placarding (Section 172.502)

No person may affix a placard to a packaging, freight container, unit load device, motor vehicle or rail car unless the material being offered for transportation is a hazardous material and the placard applied represents the hazard of the material being offered.

Placards must conform to the requirements of Subpart F of the regulations. Signs, advertisements, slogans, or other devices that could be confused with a prescribed placard are prohibited.

The restrictions above do not apply to the display of a BIOHAZARD marking, a HOT marking, a sour crude oil hazard marking, or an identificatio number on a white square-on-point configuration

A bulk packaging, freight container, unit load device, transport vehicle or rail car placarded according to Canada's Transport Dangerous Goods (TDG) Regulations, the International Maritime Dangerous Goods (IMDG) Code, or the United Nations (UN) Recommendations are allowed.

Placarding Requirements (Section 172.504)

Placarding requirements vary according to the category of the material (hazard class, division, packing group or description) being transported and the type of packaging (bulk or non-bulk) containing the material. Each bulk packaging, freight container, unit load device, transport vehicle, or rail car containing hazardous material must be placarded on each side and each end (with some exceptions) with the type of placards specified in Table 1 or Table 2 of Section 172.504.

To determine what placards are required, you must know:

- The type of packaging (bulk or non-bulk) containing the hazardous material(s).
- The hazard category (class, division, packing group, or description) and subsidiary hazard(s) of the hazardous material(s) present.
- The weight of non-bulk packages in each hazard category.

Table 1

The most dangerous categories of hazardous materials are located in Table 1 and include Divisions 1.1, 1.2, 1.3 (explosives); Division 2.3 (poison gas); Division 4.3 (dangerous when wet); materials described by the proper shipping name "organic peroxide, Type B, liquid *or* solid, temperature controlled"; Division 6.1 (inhalation hazard, Zone A or B); and Class 7 (radioactive) Yellow III label only.

Any quantity of material falling within the categories listed in Table 1 **must** be placarded.

Table 1

Category of material (Hazard class or division number and additional description, as appropriate)	Placard name	Placard design section reference (§)
1.1	EXPLOSIVES 1.1	172.522
1.2	EXPLOSIVES 1.2	172.522
1.3	EXPLOSIVES 1.3	172.522
2.3	POISON GAS	172.540
4.3	DANGEROUS WHEN WET	172.548
5.2 (Organic peroxide, Type B, liquid *or* solid, temperature controlled)	ORGANIC PEROXIDE	172.552
6.1 (Material poisonous by inhalation (see §171.8 of this subchapter))	POISON INHALATION HAZARD	172.555
7 (Radioactive Yellow III label only)	RADIOACTIVE[1]	172.556

[1]RADIOACTIVE placard also required for exclusive use shipments of low specific activity material and surface contaminated objects transported in accordance with §173.427(b)(4) and (5) of this subchapter.

Table 2

The remaining hazard categories are assigned to Table 2. Any quantity of these materials also must be placarded, but the regulations provide some exceptions under certain conditions.

Table 2		
Category of material (Hazard class or division number and additional description, as appropriate)	**Placard name**	**Placard design section reference (§)**
1.4	EXPLOSIVES 1.4	172.523
1.5	EXPLOSIVES 1.5	172.524
1.6	EXPLOSIVES 1.6	172.525
2.1	FLAMMABLE GAS	172.532
2.2	NON-FLAMMABLE GAS	172.528
3	FLAMMABLE	172.542
Combustible liquid	COMBUSTIBLE	172.544
4.1	FLAMMABLE SOLID	172.546
4.2	SPONTANEOUSLY COMBUSTIBLE	172.547
5.1	OXIDIZER	172.550
5.2 (Other than organic peroxide, Type B, liquid or solid, temperature controlled)	ORGANIC PEROXIDE	172.552
6.1 (Other than material poisonous by inhalation)	POISON	172.554
6.2	(None)	
8	CORROSIVE	172.558
9	CLASS 9 (see §172.504(f)(9)	172.560
ORM-D	(None)	

Exceptions and Placard Substitutions (Section 172.504)

- A transport vehicle or freight container which contains less than 454 kg (1,001 lb) aggregate gross weight of hazardous materials in non-bulk packages covered by Table 2 is not required to display placards. (This exception does not apply to bulk packages or materials with subsidiary hazards that must be placarded according to Section 172.505.)

- If a transport vehicle, rail car, freight container, or unit load device contains non-bulk packagings of two or more categories of Table 2 materials, the DANGEROUS placard may be displayed instead of the separate placards specified in Table 2.

When 1,000 kg (2,205 lb) or more of one hazard category is loaded at one facility, on one vehicle, rail car, freight container, or unit load device, the DANGEROUS placard cannot be used, instead the placard specified in Table 2 must be displayed.

If there are three or more different categories of Table 2 materials in one vehicle, rail car, freight container, or unit load device, and one material is over the 1,000 kg (2,205 lb) and requires an individual class placard, the DANGEROUS placard may still be used for the other categories of Table 2 material that fall below the 1,000 kg (2,205 lb) limit.

- Non-bulk packagings that contain only the residue of a Table 2 material are not included when determining the required placards for a transport vehicle, rail car, freight container, or unit load device.

- A rail car loaded with a transport vehicle or freight container that is not required to be placarded is not required to display placards.

- A motor vehicle transporting freight containers or aircraft unit load devices that are not required to be placarded is not required to display placards.

- Freight containers and unit load devices being transported for delivery to a consignee immediately after an air or water shipment are also allowed to use the exception for less than 454 kg (1,001 lb) of Table 2 materials.
- A freight container or aircraft unit load device that is only transported by air and is prepared according to Part 5, Chapter 2, Section 2.7 of the ICAO Technical Instructions is not required to be placarded.
- When more than one division placard is required for Class 1 materials on a transport vehicle, rail car, freight container, or unit load device, only the placard representing the lowest division number must be displayed.

Example: A transport vehicle carrying Division 1.3, 1.4, and 1.5 materials could be placarded for Division 1.3.

- A COMBUSTIBLE placard is not required on a cargo tank, portable tank, or compartmented tank car containing both flammable and combustible liquids when placarded FLAMMABLE.
- A NON-FLAMMABLE GAS placard is not required on a motor vehicle containing a non-flammable gas if the vehicle contains flammable gas or oxygen and is placarded FLAMMABLE GAS or OXYGEN, as required.
- OXIDIZER placards are not required for Division 5.1 materials on freight containers, unit load devices, transport vehicles, or rail cars which also contain Division 1.1 or 1.2 materials and which are placarded with EXPLOSIVES 1.1 or 1.2 placards, as required.
- (For transportation by transport vehicle or rail car only) An OXIDIZER placard is not required for Division 5.1 materials on a transport vehicle, rail car, or freight container which also contains Division 1.5 materials and is placarded with EXPLOSIVES 1.5 placards, as required.
- The EXPLOSIVES 1.4 placard is not required for those Division 1.4 Compatibility Group S (1.4S) materials that are not required to be labeled 1.4S.
- For shipments of Class 1 (explosive) materials **by aircraft or vessel,** the applicable compatibility group letter must be displayed on the required placards.
- CLASS 9 placards are not required for domestic transportation.
- The OXYGEN placard may be used for domestic shipments of **oxygen, compressed**, or **oxygen, refrigerated liquid**, in place of a NON-FLAMMABLE GAS placard.
- For domestic transportation, a POISON placard is not required on a transport vehicle or freight container required to display a POISON INHALATION HAZARD or POISON GAS placard.

Subsidiary Placards (Section 172.505)

There are two types of placards:

- **Primary** placards are used to indicate the primary hazard of the material.
- **Subsidiary** placards indicate additional hazards the material possesses.

Generally, only the primary placards are displayed. Section 172.505 of the regulations requires placards to be displayed for certain subsidiary hazards. Other subsidiary placards are permitted to be displayed but are not required.

Uranium Hexafluorid

Each transport vehicle, portable tank, or freight container containing 454 kg (1,001 lbs) or more of fissil or low specific-activit "Uranium hexafluoride shall be placarded CORROSIVE — on each end and each side — in addition to the primary hazard placard (which may be a RADIOACTIVE placard).

Dangerous When Wet

Each transport vehicle, portable tank, freight container, or unit load device containing a material with a subsidiary risk of being dangerous when wet must be placarded DANGEROUS WHEN WET — on each end and each side — in addition to the primary hazard placard.

PRIMARY PLACARD +

Poison Inhalation Hazards

Each transport vehicle, portable tank, rail car, freight container, or unit load device that contains a material subject to the “Poison-Inhalation Hazard” shipping description requirements must be placarded POISON INHALATION HAZARD or POISON GAS, as appropriate — on each side and each end — in addition to the primary hazard placard. Duplication of the POISON INHALATION HAZARD or POISON GAS placard is not required.

PRIMARY HAZARD PLACARD +

Additional Placarding Requirements

Depending on the material being transported, or the conditions of transport, special placarding requirements may apply.

Transportation by Highway (Section 172.507)

Radioactive Materials

A square background is required when a motor vehicle is used to transport a highway route-controlled quantity of radioactive material.

Nurse Tanks

A nurse tank that meets the provisions of Section 173.315(m) is not required to be placarded on an end containing valves, fittings, regulators, or gauges, when it would prevent the placard and markings from being properly placed and visible.

Transportation by Rail (Section 172.510 and 172.332)

White Square Background (Section 172.510)

A white square background is required when the following materials are transported by rail:

- EXPLOSIVES 1.1 or 1.2

- POISON GAS or POISON INHALATION HAZARD

- FLAMMABLE GAS–When transported in DOT 113 tank cars

Chemical Ammunition (Section 172.510)

Each rail car containing Division 1.1 or 1.2 ammunition which also meets the definition of a material poisonous-by-inhalation must be placarded EXPLOSIVE 1.1 or EXPLOSIVE 1.2 and POISON GAS or POISON INHALATION HAZARD.

White Bottom Combustible (Section 172.332 (c)(4))

A COMBUSTIBLE placard used to display an identification number must have a white bottom for rail transportation. This placard may be used for highway transportation.

Note: Display of identification number on a placard is addressed under the MARKING tab.

Placement

Bulk packagings (Section 172.514)

In most situations, a bulk packaging containing hazardous materials that requires placards must be placarded on each side and each end.

Each bulk packaging that previously contained a hazardous material requiring placards must remain placarded when emptied unless:

- Sufficiently cleaned of residue and purged of vapors to remove any potential hazard, or
- Refilled with a material requiring different placards or no placards (provided that any residue remaining in the packaging is no longer hazardous).

The following bulk packagings may be placarded on only two opposite sides or may be labeled instead of placarded:

- A portable tank having a capacity of less than 3,785 liters (1,000 gallons);
- A DOT 106 or 110 multi-unit tank car tank;
- A bulk packaging other than a portable tank, cargo tank, or tank car (such as a bulk bag or box) with a volumetric capacity of less than 18 cubic meters (640 cubic feet); and
- An intermediated bulk container.

Freight Containers and Aircraft Unit Load Devices (Section 172.512)

A freight container or unit load device with a capacity less than 18 cubic meters (640 cubic feet) is required to display one placard as specified in Section 172.504.

This requirement does not apply if the freight container or aircraft unit load device is:

- Labeled according to Subpart E of the regulations.
- Contains radioactive materials requiring the RADIOACTIVE YELLOW III label and is placarded with one RADIOACTIVE placard and labeled according to Subpart E.
- Identified as prepared according to Part 7, Chapter 2, Section 2.7 of the ICAO Technical Instructions.

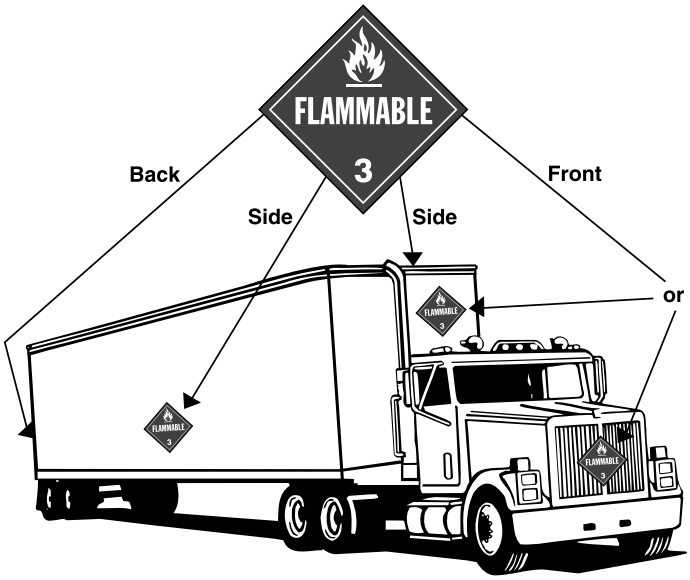
Freight containers with a capacity of less than 640 cubic feet that are not transported by air do not have to be placarded – they may be labeled instead.

Motor Vehicles and Rail Cars (Section 172.516)

Each placard affixed to a motor vehicle or rail car must be readily visible from the direction it faces — except from the direction of another vehicle or rail car to which the vehicle or rail car is coupled.

The placard placement for the front of a vehicle may be on the front of the truck-tractor instead of, or in addition to, the placard on the front of the cargo-carrying body (e.g., trailer or semitrailer).

Placards displayed on freight containers or portable tanks loaded on (not enclosed in) a motor vehicle or rail car may be used to meet the placarding requirements for the motor vehicle or rail car.



In addition, each placard on a transport vehicle, bulk packaging, unit load device, or freight container must be:

- Located clear of any appurtenances and devices (e.g., ladders and pipes).
- Away from any markings — such as advertising — which might substantially reduce its effectiveness. (A minimum distance of 76 mm (3 inches) is required.)
- Affixed to a background of contrasting color, or must have a dotted or solid line outer border which contrasts with the background color.
- Maintained by the carrier so that its effectiveness will not be reduced in any way.

- Placed, as far as practicable, so that dirt or water is not directed to it from the wheels of the vehicle.
- Securely attached or affixed or placed in a placard holder.
- Displayed with the word(s) or identificatio number (when authorized) shown horizontally, reading left to right.

Specification (Section 172.519)

To be in compliance, all placards must meet the following specifications

- Placards must be designed as specifie in Part 172, Subpart F.
  (Note: The dotted-line outer border shown in the regulations is intended to indicate the full dimension of the placard and is not part of the placard design.)
- Specification for color must be as prescribed in Appendix A to Part 172.
- Placards must measure at least 273 mm (10.8 inches) on each side, and have a solid-line inner border approximately 12.7 mm (0.5 inches) from each edge.
- Other than for the RADIOACTIVE, OXYGEN, and DANGEROUS placards, text indicating the hazard (e.g., FLAMMABLE) is not required.
- Placards may contain form identificatio information — including the name of the maker — provided that such information is printed outside of the solid-line inner border in no larger than 10-point type.
- Reflectiv and retro-reflectiv material may be used on a placard provided color, strength and durability requirements are maintained.
- The material used for placards may be any plastic, metal, or other material capable of withstanding, without deterioration or a substantial reduction in effectiveness, a 30-day exposure to open-weather conditions.

According to the regulations “tagboard placards” must:

- Be of a quality at least equal to that designated commercially as white tag-board.
- Have a weight of at least 80 kg (176 lbs) per ream of 610 mm x 910 mm (24 in x 36 in), waterproofin materials included.
- Be able to pass a 414 kPa (60 p.s.i.) Mullen test.

Illustrations of all the placards can be found on the Hazardous Materials Placarding Chart at the end of this tabbed section.

Transitional Placarding (Section 171.14)

Poison Inhalation Hazard

Division 2.3

Effective October 1, 2001 only the INHALATION HAZARD placard may be used.

Division 6.1, poison inhalation hazard (zone a or b)

Effective October 1, 2001 only the INHALATION HAZARD placard may be used.

Division 6.1, not a Poison Inhalation Hazard (Zone A or B)

Either placard may be used for domestic transportation.

Packing Group III Poison

There are no longer several placarding options for Division 6.1, packing group III materials. As of October 1, 2003, the KEEP AWAY FROM FOOD placard can no longer be used.

TABLE OF CONTENTS

HANDLING & STORAGE

Reserved

Overview

The Hazardous Materials Regulations contain specific requirements for the proper loading, unloading, transport, and storage of hazardous materials. These rules, which are modal-specific, are designed to protect those individuals who are involved with the shipment (i.e., the shipper and carrier), as well as those who may come into contact with it. They include, among others, provisions for quantity limitations, segregation, monitoring, load securement, stowage locations, vehicle positioning, and routing.

This section of the manual will familiarize you with the general requirements for each of the four modes of transport — rail, air, vessel, and highway. To ensure complete compliance, you must always reference the applicable parts of the regulations.

Carriage by Rail (Part 174)

Responsibility

Unless specifically excepted, each rail carrier — including any connecting carrier — must comply with the applicable handling and loading requirements contained in Part 174. These requirements also apply to any person who is involved with the loading and/or unloading process.

General Requirements

The general requirements for handling and loading that pertain to all rail shipments of hazardous materials can be found in Subpart C of Part 174. The following requirements are among those included in this subpart:

- Each package of hazardous materials transported by rail car must be properly blocked, braced, and loaded to prevent it from changing position, falling to the floor, or sliding into other packages. (Recommended practices and methods for blocking and bracing are included in the Bureau of Explosives' Pamphlets Nos. 6 and 6C.)
- If a package is marked with orientation arrows, it must be handled, loaded, blocked, and braced to remain in the position indicated by the markings throughout transportation.
- Packages containing hazardous materials may not be dropped from any truck, platform, or rail car.
- Any hazardous material that has leaked from a package in any rail car, or on other railroad property, must be carefully removed.

- Placards and car certificates lost in transit must be replaced at the next inspection point.
- Placards and car certificates not required must be removed at the next terminal where the train is classified.
- Transport vehicles and freight containers loaded on flatcars must be secured so that they cannot permanently change position during transit.
- Except as specifically authorized, a bulk packaging that contains hazardous materials may not be transported in container-on-flatcar or trailer-on-flatcar service.

Class-Specific Requirements

In addition to complying with the general requirements of Subpart C, handling and loading must be performed in accordance with the applicable class-specific requirements. These requirements can be found in Part 174 as follows:

- Subpart E — Class 1 (Explosive) Materials
- Subpart F — Class 2 (Gases) Materials
- Subpart G — Class 3 (Flammable Liquid) Materials
- Subpart J — Division 6.1 (Poisonous) Materials
- Subpart K — Class 7 (Radioactive) Materials

Some of the requirements listed in these subparts apply to the class as a whole. Others are applicable to a specific material within that class.

Example: In Subpart F, the regulations prohibit packages of Division 2.1 material from being loaded, transported, or stored in a rail car equipped with any type of lighted heater or open-flame device, or in a rail car equipped with any apparatus or mechanisms utilizing an internal combustion engine in its operation.

Example In Subpart J, the regulations prohibit packages bearing the POISON or POISON INHALATION HAZARD label from being stowed in the same car with foodstuffs, feed, or other edible materials. The regulations also require packages bearing a POISON label displaying PG III or bearing a PG III mark adjacent to the label, to be kept separate from materials marked as, or known to be, foodstuffs, feed, or other edible material.

Example In Subpart K, the following requirements for packages containing Class 7 (radioactive) materials are listed:

- The number of packages of Class 7 (radioactive) materials that may be transported in any rail car, or stored in any single location, is limited to a total transport index and a total criticality safety index of not more than 50 each with exception.
- Each package bearing the RADIOACTIVE YELLOW II or III label — when placed in a rail car, deport, or other place — may not be placed closer than 0.9 m (3 ft) to an area which may be continuously occupied by passengers, rail employees, or shipments of animals. In addition, each package may not be placed closer than 4.5 m (15 ft) to any marked package containing undeveloped film. If more than one package is present, the required separation distance must be computed in accordance with the following table:

Total Transport Index	Minimum Separation Distance to Nearest Undeveloped Film		Minimum Distance to Area of Persons or Minimum Distance From Dividing Partition of a Combination Car	
	Meters	Feet	Meters	Feet
None	0	0	0	0
0.1 to 10.0	4.5	15	0.9	3
10.1 to 20.0	6.7	22	1.2	4
20.1 to 30.0	7.7	29	1.5	5
30.1 to 40.0	10	33	1.8	6
40.1 to 50.0	10.9	36	2.1	7

NOTE: The distance in this table must be measured from the nearest point on the nearest packages of Class 7 (radioactive) materials.

Tank Car Unloading

Because of the quantity of hazardous materials involved, and the likelihood of an accidental release, the regulations specifically require tank car unloading to be performed only by trained individuals. The regulations (Section 174.67) also contain detailed steps that must be followed before, during, and after a tank car is unloaded.

For the safety of all involved, the following steps must be performed, each time a tank car is unloaded.

- Unloading must be performed by reliable persons properly instructed in unloading hazmat and made responsible for careful compliance.
- The unloader must apply the handbrake and block at least one wheel to prevent movement in any direction. Multiple tank cars coupled together require that additional hand brakes be set and wheels blocked to prevent movement.
- Access to the track must be secured, preventing entry by other rail equipment and vehicles.
- The unloader must place caution signs (with the word “STOP”) on the track or car to provide necessary warning to persons approaching the car that a tank car is connected to unloading equipment.
- The unloader must maintain written safety procedures in a location where they are immediately available.
- After the pressure is released, the seal must be broken and the manhole cover removed.
- When the car is unloaded through a bottom outlet valve, the manhole cover must be protected against the entrance of sparks or other sources of ignition of vapor.
- Seals or other substances may not be thrown into the tank, and the contents may not be spilled over the car or tank.
- The valve rod handle or control in the dome must be operated several times to see that the outlet valve in the bottom of the tank is on its seat before the valve cap is removed.
- The valve cap — or the reducer when a large outlet is to be used — must be removed with a suitable wrench, and a pail positioned to catch any liquid that may be in the outlet chamber. (Leakage must be handled as described in Section 174.67.)
- Unloading connections must be securely attached to the unloading pipes on the dome or to the bottom discharge outlets before any discharge valves are opened.
- Throughout the entire unloading and while unloading equipment is attached, the facility operator must assure the tank car is physically attended at all times by the designated individual responsible for unloading, or monitored by a signaling system that is observed by a designated employee.
- Attendance is not required when piping is attached to a top outlet, equipped with a protective housing, as required. All valves must be tightly closed and piping can not be connected to a hose or other unloading equipment.
- As soon as a tank car is unloaded, all valves must be tightened and unloading connections removed.

Placarded Rail Cars, Transport Vehicles & Freight Containers

The regulations also establish special requirements for the switching of placarded rail cars and the positioning of such cars in a train. Following are some of the requirements contained in Subpart D.

- A placarded rail car, transport vehicle, freight container, or bulk package may not be transported in a passenger train.
- In switching operations, where the use of hand brakes is necessary:
  - It must be determined by trial whether a loaded placarded car, or a car occupied by a rider in a draft containing a placarded car, has its hand brakes in proper working condition before it is cut off.
  - A loaded placarded car, or a draft which includes a loaded placarded car, may not be cut off until the preceding car clears the ladder track.
  - A loaded placarded car, or a draft which includes a loaded placarded car, must clear the ladder track before another car is allowed to follow.
- Any loaded rail car placarded for a Division 1.1 or 1.2, Division 2.3 (Hazard Zone A), or a Division 6.1 (PG I, Hazard Zone A) material, or any Class DOT-113 tank car placarded for a Division 2.1 material may not be:
  - Cut off while in motion.
  - Coupled into with more force than is necessary to complete the coupling.
  - Struck by any car moving under its own momentum.
- A rail car placarded Division 1.1 or 1.2, Division 2.3 (Hazard Zone A), or Division 6.1 (PG I, Hazard Zone A) — in a moving or standing train — must be next to and ahead of any car occupied by the guards or technical escorts accompanying the placarded rail car. However, if the car occupied by the guards or technical escorts has temperature controlled equipment in operation, it must be the fourth car behind any car placarded Division 1.1 or 1.2.
- A car placarded RADIOACTIVE must be separated from a locomotive, occupied caboose, or carload of undeveloped fil by at least one non-placarded car.
- The position of placarded rail cars transporting hazardous materials must be as follows:

Position in Train of Placarded Cars Transporting Hazardous Materials

RESTRICTIONS	Placard Group 1	Placard Group 2		Placard Group 3		Placard Group 4
	Rail Car	Tank Car	Rail Car	Tank Car	Rail Car	Rail Car
1. When train length permits, placarded car may not be nearer than the sixth car from the engine or occupied caboose.	X	X		X		
2. When train length does not permit, placarded car must be placed near the middle of the train, but not nearer than the second car from an engine or occupied caboose.	X	X		X		

Position in Train of Placarded Cars Transporting Hazardous Materials

RESTRICTIONS	Placard Group 1	Placard Group 2		Placard Group 3		Placard Group 4
	Rail Car	Tank Car	Rail Car	Tank Car	Rail Car	Rail Car
3. A placarded car may not be placed next to an open-top car when any of the lading in the open top car protrudes beyond the car ends, or if the lading shifted, would protrude beyond the car ends.	X	X		X		
4. A placarded car may not be placed next to a loaded fla car, except closed TOFC/COFC equipment, auto carriers, and other specially equipped cars with tie-down devices for securing vehicles. Permanent bulk head fla cars are considered the same as open-top cars.	X	X		X		
5. A placarded car may not be placed next to any transport vehicle or freight container having an internal combustion engine or an open-flam device in operation.	X	X		X		
6. Placarded cars may not be placed next to each other based on the following:						
Placard Group 1		X	X	X	X	X
Placard Group 2	X			X	X	X
Placard Group 3	X	X	X			X
Placard Group 4	X	X	X	X	X	

PLACARD GROUP:
Group 1 — Divisions 1.1 and 1.2 (explosive) materials.
Group 2 — Divisions 1.3, 1.4, 1.5 (explosive), Class 2 (compressed gas; other than Div 2.3, PG I, Zone A), Class 3 (flammabl liquid), Class 4 (flammabl solid), Class 5 (oxidizing), Class 6 (poisonous liquid; other than Div 6.1, PG I, Zone A), and Class 8 (corrosive) materials.
Group 3 — Division 2.3 (PG I, Zone A; poisonous gas) and 6.1 (PG I, Zone A; poisonous liquid) materials.
Group 4 — Class 7 (radioactive) materials.

Where an “X” appears at the intersection of a “Placard Group” and a “Restriction,” the corresponding restriction applies.

Segregation

Because certain hazardous materials can trigger dangerous reactions when loaded or stored together, the regulations provide requirements for the separation of these materials.

- Cyanides, cyanide mixtures or solutions may not be stored, loaded and transported with acids;
- Division 4.2 materials may not be stored, loaded and transported with Class 8 liquids; and
- Division 6.1 Packing Group I, Hazard Zone A material may not be stored, loaded and transported with Class 3 material, Class 8 liquids, and Division 4.1, 4.2, 4.3, 5.1 or 5.2 material.

Other more general restrictions are listed by class in the Segregation Table.

Segregation table for hazardous materials

Class or Division		Notes	1.1, 1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3 gas Zone A	2.3 gas Zone B	3	4.1	4.2	4.3	5.1	5.2	6.1 liquids PG I Zone A	7	8 liquids only
Explosives	1.1 and 1.2	A	*	*	*	*	*	x	x	x	x	x	x	x	x	x	x	x	x	x
Explosives	1.3							x		x	x	x		x	x	x	x	x		x
Explosives	1.4		*	*	*	*	*	o		o	o	o		o				o		o
Very insensitive explosives.	1.5	A	*	*	*	*	*	x	x	x	x	x	x	x	x	x	x	x	x	x
Extremely insensitive explosives.	1.6		*	*	*	*	*													
Flammable gases.....	2.1		x	x	o	x				x	o							o	o	
Non-toxic, non-flammabl gases.	2.2		x			x														
Poisonous gas Zone A	2.3		x	x	o	x		x				x	x	x	x	x	x			x
Poisonous gas Zone B	2.3		x	x	o	x		o				o	o	o	o	o	o			o
Flammable liquids	3		x	x	o	x				x	o					o		x		
Flammable solids	4.1		x			x				x	o							x		o
Spontaneously combustible materials.-	4.2		x	x	o	x				x	o							x		x
Dangerous when wet materials.	4.3		x	x		x				x	o							x		o
Oxidizers.....	5.1	A	x	x		x				x	o	o						x		o
Organic peroxides	5.2		x	x		x				x	o							x		o
Poisonous liquids PG liquids PG I Zone A.	6.1		x	x	o	x		o				x	x	x	x	x	x			x
Radioactive materials .	7		x			x		o												
Corrosive liquids	8		x	x	o	x				x	o		o	x	o	o	o	x		

The Segregation Table must be used whenever labeled or placarded materials from more than one hazard class or division are to be loaded, stored, or transported. To use this table:

(1) Locate the hazard classes or divisions of the materials in question — one in the vertical column, the other in the horizontal row.

(2) Follow each to the location where they intersect.

(3) The codes at the intersection are define as follows:

Code	Meaning
Blank	There are no restrictions. The materials may be loaded or stored together.
X	The materials may not be loaded, transported, or stored together.
O	The materials may not be loaded, transported, or stored together unless separated in a manner that — in the event of leakage — there would be no commingling of the materials under circumstances normal to transportation.
*	The segregation of Class 1 (explosive) materials is governed by the Compatibility Table for Class 1 (explosive) materials in Section 177.848(f).
A	Not withstanding the “X”, ammonium nitrate fertilizer may be loaded or stored with Division 1.1 or 1.5 materials.

When the package bears a subsidiary hazard label, and the subsidiary hazard is more restrictive than the primary hazard, it must be segregated according to the table. However, there are exceptions. For example, hazardous materials of the same class may be stowed together without regard to the subsidiary segregation requirements if they are stowed in a place where they are incapable of reacting so as to cause:

- Combustion or dangerous evolution of heat.
- Evolution of flammable poisonous, or axphyxiant gases.
- Formation of corrosive or unstable materials.

Carriage by air (Part 175)

Responsibility

49 CFR Part 175 has been revised again. Review the new text to ensure familiarity with the requirements of the part and how they may apply to you. The preambles from HM–228, HM-215J/228D, and HM-215K can be found in the PREAMBLES tab. Check HM-215K and 49 CFR 175.75 for changes regarding quantity limitations

Inspection of shipments

Hazardous materials are not permitted aboard an aircraft until the operator of the aircraft has authorized the material and it is within quantity limitations, as specified This inspection includes checking each package of Class 7 (radioactive) materials to determine that the required seal has not been broken. Some exceptions to this inspection requirement are provided in 49 CFR 175.30 Inspecting shipments.

Quantity limitations

To ensure the safety of the aircraft and its crew, the regulations (49 CFR 175.75 Quantity limitations and cargo location and 175.700 Special limitations and requirements for Class 7 materials) establish specifi quantity limitations. These limitations prohibit any person from carrying on an aircraft:

- More than 25 kg (55 lbs) net weight of hazardous materials — plus 75 kg (165 lbs) net weight of Division 2.2 materials permitted to be carried aboard a passenger aircraft:
  - In an inaccessible cargo compartment,
  - In any freight container within an accessible cargo compartment, or
- Packages containing Class 7 materials, when the transport index number:
  - For passenger aircraft — for any single package, exceeds 3.0, or the combined transport index and the combined criticality index of all the packages exceed 50.
  - For cargo aircraft only — for any single package, exceeds 10.0, or the combined transport index of all packages exceeds 200, and the combined criticality index of all packages exceed 50 on a non-exclusive cargo aircraft or 100 on an aircraft assigned for the exclusive use of the shipper (offeror). Instructions for the exclusive use must be developed by the shipper [offeror] and carrier, and the instructions must accompany the shipping papers.

Stowage compatibility

Hazardous materials that may react dangerously with one another may not be placed next to each other, or in a position that would allow a dangerous interaction in the event of leakage. This requirement applies when hazardous materials are stowed:

- On an aircraft.

- In a cargo facility.
- In any other area designated for the stowage of hazardous materials.

Cargo location

Although there are some exceptions authorized in 49 CFR 175.8, 175.9, and 175.10, most hazardous materials carried aboard an aircraft must be in compliance with the cargo location requirements summarized below.

- Hazardous materials may be carried in a main-deck cargo compartment of a passenger-aircraft, provided that the compartment is inaccessible to passengers, and it meets all Class B or Class C aircraft cargo compartment certificatio requirements.
- Each package containing hazardous materials acceptable only for cargo aircraft must be loaded so that a crew member or other authorized person can access, handle, and when size and weight permit, separate such packages from other cargo during flight
- When carried on an aircraft, the following classes are not subject to the weight limitations specifie in 49 CFR 175.75, and may be carried in a location that is inaccessible to crew members during flight
  - Class 7 (radioactive) materials (unless the hazardous material meets the definitio of another hazard class).
  - Class 6 materials — except those also labeled FLAMMABLE.
  - Class 3 (flammabl liquid) PG III materials (unless the hazardous material meets the definitio of another hazard class).

Material-specifi requirements

49 CFR 175 has been revised to include requirements for specifi types of hazardous materials. **49 CFR 175 Subpart C – Specifi Regulations Applicable According to Classificatio of Material** has new sections pertaining to:

- Transportation of flammabl liquid fuel; aircraft only means of transportation (49 CFR 175.310)
- Special requirements for oxidizers and compressed oxygen (49 CFR 175.501)
- Special requirements for Division 6.1 and Division 6.2 material (49 CFR 175.630)
- Special limitations and requirements for Class 7 materials (49 CFR 175.700)
- Separation distance requirements for packages containing Class 7 (radioactive) materials in passenger-carrying aircraft (49 CFR 175.701)
- Separation distance requirements for packages containing Class 7 (radioactive) materials in cargo aircraft (49 CFR 175.702)
- Other special requirements for the acceptance and carriage of packages containing Class 7 materials (49 CFR 175.703)

- Plutonium shipments (49 CFR 175.704)
- Radioactive contamination (49 CFR 175.705)
- Separation distances for undeveloped fil from packages containing Class 7 (radioactive) materials (49 CFR 175.706)
- Handling requirements for carbon dioxide, solid (dry ice) (49 CFR 175.900)

Carriage by vessel (Part 176)

Responsibility

Unless specificall excepted in 49 CFR 176.5, the requirements of Part 176 apply to each domestic or foreign vessel when in the navigable waters of the United States:

- Regardless of its tonnage, character, size, or service.
- Whether self-propelled or not.
- Whether arriving or departing, underway, moored, anchored, aground, or while in dry dock.

General requirements

Column 10A of the Hazardous Materials Table prescribes a number of stowage location requirements for hazardous materials on board cargo and passenger vessels. Column 10B lists other stowage requirements for specifi hazardous materials. The rules in Part 176 further defin these requirements and explain procedures to be followed when loading and storing hazardous materials on board vessels. A number of these requirements follow.

- Hazardous materials may be handled or stowed on board a vessel only under the direction and observation of a person assigned that duty.
- Each hold or compartment in which hazardous materials are to be stowed must be free of all debris. Bilges must be examined and all residue of previous cargo removed.
- All decks, gangways, hatches, and cargo ports — over or through which hazardous materials must be passed or handled — must be free of all loose materials before cargo handling begins.
- Hatch beams and covers may not be stowed in a location that would interfere with cargo handling.
- Most classes of hazardous materials may be stowed in a manner that will facilitate inspection during the voyage. Stowage must also facilitate the removal of hazardous material packages from potentially dangerous situations — including fire
- Packages required to be marked with orientation arrows must be stowed so as to remain in the position indicated during transportation.

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Class-Specific Requirements

In addition to complying with the general requirements of Subpart C, handling and stowage must be performed in accordance with the applicable class-specific requirements. These requirements can be found in Part 176 as follows:

- Subpart G — Class 1 (Explosive) Materials
- Subpart H — Class 2 (Compressed Gas) Materials
- Subpart I — Class 3 (Flammable) and Combustible Liquid Materials
- Subpart J — Class 4 (Flammable Solid), Class 5 (Oxidizing and Organic Peroxide), and Division 1.5 (Blasting Agent) Materials
- Subpart L — Division 2.3 (Poisonous Gas) and Division 6.1 (Poisonous) Materials
- Subpart M — Class 7 (Radioactive) Materials
- Subpart N — Class 8 (Corrosive) Materials
- Subpart O — Cotton and Vegetable Fibers, Motor Vehicles, and Asbestos

Some of the requirements listed in these subparts apply to the class as a whole. Others are applicable to a specific material within that class.

Example: In Subpart G, the regulations list the following handling requirements for drafts of Class 1 (explosive) materials:

- A draft may not be raised, lowered, or stopped by sudden application of power or brake.
- A draft may not be released by tripping or freeing one side of the cargo-handling equipment and tumbling the Class 1 (explosive) materials off.
- All drafts, beams, shackles, bridles, slings, and hoods must be manually freed before the winch takes control.
- Slings may not be dragged from under a draft by winching, except for the top-most layer in the hold when power removal is the only practical method and when the cargo cannot be toppled.
- Handles or brackets on packages in a draft may not be used for slinging purposes.

Example: In Subpart J, the regulations require the hold or compartment in which charcoal is to be stowed to be swept as clean as practicable. It is also required that all residue of former cargo — including especially a petroleum product, a vegetable or animal oil, nitrate or sulfur — to be removed.

Segregation

The segregation requirements detailed in Subpart D of Part 176 apply to all cargo spaces, both on deck and under deck, on all types of vessels. When segregation is required, it may be obtained by:

- Maintaining certain distances between incompatible hazardous materials.
- Requiring the presence of one or more steel bulkheads or decks between incompatible materials.
- Using a combination of these two methods.

General requirements for segregation between the various classes of hazardous materials are provided in the Segregation Table (Section 176.83). However, since the properties of materials within each class may vary greatly, a material may require greater segregation than what is indicated. If Column 10B of the Hazardous Materials Table (Section 172.101) lists particular segregation requirements for a material, they will take precedence over those listed in the Segregation Table.

Table §176.83(b) — General Segregation Requirements for Hazardous Materials

[Segregation must also take account of a single secondary hazard label, as required by paragraph (a)(6) of this section.]

Class	1.1 1.2 1.5	1.3	1.4 1.6	2.1	2.2	2.3	3	4.1	4.2	4.3	5.1	5.2	6.1	6.2	7	8	9
Explosives, 1.1, 1.2, 1.5	(*)	(*)	(*)	4	2	2	4	4	4	4	4	4	2	4	2	4	x
Explosives, 1.3	(*)	(*)	(*)	4	2	2	4	3	3	4	4	4	2	4	2	2	x
Explosives, 1.4, 1.6	(*)	(*)	(*)	2	1	1	2	2	2	2	2	2	x	4	2	2	x
Flammable gases, 2.1	4	4	2	x	x	x	2	1	2	x	2	2	x	4	2	1	x
Non-toxic, non-flammabl gases 2.2	2	2	1	x	x	x	1	x	1	x	x	1	x	2	1	x	x
Poison gases 2.3	2	2	1	x	x	x	2	x	2	x	x	2	x	2	1	x	x
Flammable liquids 3	4	4	2	2	1	2	x	x	2	1	2	2	x	3	2	x	x
Flammable solids 4.1	4	3	2	1	x	x	x	x	1	x	1	2	x	3	2	1	x
Spontaneously combustible substances 4.2	4	3	2	2	1	2	2	1	x	1	2	2	1	3	2	1	x
Substances which are dangerous when wet 4.3	4	4	2	x	x	x	1	x	1	x	2	2	x	2	2	1	x
Oxidizing substances 5.1	4	4	2	2	x	x	2	1	2	2	x	2	1	3	1	2	x
Organic peroxides 5.2	4	4	2	2	1	2	2	2	2	2	2	x	1	3	2	2	x
Poisons 6.1	2	2	x	x	x	x	x	x	1	x	1	1	x	1	x	x	x
Infectious substances 6.2	4	4	4	4	2	2	3	3	3	2	3	3	1	x	3	3	x
Radioactive materials 7	2	2	2	2	1	1	2	2	2	2	1	2	x	3	x	2	x
Corrosives 8	4	2	2	1	x	x	x	1	1	1	2	2	x	3	2	x	x
Miscellaneous dangerous substances 9	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Numbers and symbols relate to the following terms as define in this section:

1—"Away from."

2—"Separated from."

3—"Separated by a complete compartment or hold from."

4—"Separated longitudinally by an intervening complete compartment or hold from."

x—The segregation, if any, is shown in the §172.101 Table.

*—See §176.144 of this part for segregation within Class 1.

To use the Segregation Table:

(1) Locate the hazard classes or divisions of the materials in question — one in the vertical column, the other in the horizontal row.

(2) Follow each to the location where they intersect.

(3) The codes at the intersection are define as follows:

Code	Meaning
1	"Away from" — meaning effectively segregated so that the incompatible materials cannot interact dangerously in the event of an accident. Materials may be carried in the same compartment or hold, or on deck, provided a minimum horizontal separation of 3 m (10 ft) projected vertically is obtained.
2	"Separated from" — meaning in different compartments or holds when stowed under deck. If the intervening deck is resistant to fir and liquid, a vertical separation may be accepted. For "on deck" stowage, this segregation means a separation by a distance of at least 6 m (20 ft) horizontally.
3	"Separated by a complete compartment or hold from" — meaning separated by either a vertical or horizontal separation. If the intervening decks are not resistant to fir and liquid, then only a longitudinal separation is acceptable. For "on deck" stowage, this segregation means a separation by a distance of at least 12 m (39 ft) horizontally.
4	"Separated longitudinally by an intervening complete compartment or hold from" — meaning vertical separation alone does not meet this requirement. Between a package "under deck" and one "on deck," a minimum distance of 24 m (79 ft) including a complete compartment must be maintained longitudinally. For "on deck," this means a separation by at least 24 m (79 ft) longitudinally.
X	The segregation, if any, is shown in the Section 172.101 Table.
*	See Section 176.144 for segregation within Class 1.

Additional segregation requirements are provided in Section 176.83.

Transport of Vehicles, Containers, & Portable Tanks

Special requirements applicable to the vessel carriage of hazardous materials contained in transport vehicles, freight containers, and portable tanks are detailed in Section 176.76. A number of these requirements follow:

- All packages in the transport vehicle or freight container must be secured to prevent shifting in any direction.
- Bulkheads made of dunnage — which extend to the level of the cargo — must be provided unless the packages are stowed flus with the sides or ends.
- Dunnage must be secured to the floo when the cargo consists of dense materials or heavy packages.
- The weight in a container must be distributed throughout as evenly as possible, and the maximum permissible weight must not be exceeded.
- Adjacent levels of bagged and baled cargo must be stowed in alternate directions so that each tier binds the tier above and below it.
- A transport vehicle which contains hazardous materials may only be carried on board a trailership, trainboat, ferry vessel, or car float
- A transport vehicle loaded with any hazardous materials which are required to be stowed on deck — as specifie in the Hazardous Materials Table — may be stowed one deck below the weather deck when transported on a trailership or trainship which is unable to provide on deck stowage because of the ship's design. Otherwise, the transport vehicle or container must be transported on deck.
- Small passenger vessels, of 100 gross tons or less, may carry a hazardous material in a portable tank only when 16 or fewer passengers are on board, and only when specificall authorized by the Officer-in-Charge, Marine Inspection, by endorsement of the vessel's Certificat of Inspection.

Carriage by Highway (Parts 172, 177 & 397)

Responsibility

Unless specificall excepted, each carrier (private, common, or contract) — including any connecting carrier — must comply with the applicable loading and unloading requirements contained in Part 177. These requirements also apply to any person who is involved with the loading and/or unloading process.

NOTE: Prohibition against texting and the use of hand-held mobile telephones.

Prohibition against texting. In accordance with §392.80 of the FMCSRs a person transporting a quantity of hazardous materials requiring placarding under 49 CFR Part 172 or any quantity of a material listed as a select agent or toxin in 42 CFR Part 73 may not engage in, allow, or require texting while driving.

Prohibition against the use of hand-held mobile telephones. In accordance with §392.82 of the FMCSRs, a person transporting a quantity of hazardous materials requiring placarding under Part 172 or any quantity of a material listed as a select agent or toxin in 42 CFR Part 73 may not engage in, allow, or require use of a hand-held mobile telephone while driving.

Each carrier is required to comply with the driving and parking rules contained in Part 397. These rules include provisions for attendance and surveillance, parking, smoking, fueling, tire inspections, and routing.

Each carrier is also required to comply with the carrier information contact requirements in Section 172.606. This section requires that certain information be provided on a dropped or disconnected trailer/container.

Shipping Paper Accessibility

Shipping papers must be readily available to, and recognizable by, authorities in the event of an accident or inspection. To comply with this requirement, the driver and carrier must:

- Clearly distinguish the shipping paper from other papers by tabbing it, or by having it appear first
- Keep the shipping paper within hand's reach, either on the passenger's seat or in a driver's side door pouch — while at the vehicle controls and restrained by the lap belt.
- Keep the shipping paper in a driver's side door pouch or on the driver's seat —when not at the vehicle controls.

General Requirements

In Subpart B of Part 177, the regulations address the general requirements applicable to the loading and unloading of hazardous material shipments. The majority of these requirements have been summarized below.

- Packages must be secured against shifting, including relative motion between packages, within the vehicle from conditions normally encountered during transport. Packages having valves or other fitting must be loaded in a manner to minimize the likelihood of damage during transportation.
- Smoking on or near a vehicle — or carrying any flame lighted cigar, pipe, or cigarette — is prohibited during the loading and unloading of Class 1 (explosive), Class 3 (flammable liquid), Class 4 (flammabl solid), Class 5 (oxidizing), and Division 2.1 (flammabl gas) materials.

- The vehicle's hand brake must be set and all reasonable precautions taken to prevent the vehicle from moving during loading and unloading.
- Any tools that are likely to damage or adversely affect a package, container, or closure must not be used.
- Containers of Class 1 (explosive), Class 3 (flammable liquid), Class 4 (flammable solid), Class 5 (oxidizing), Class 8 (corrosive), Class 2 (gases), and Division 6.1 (poisonous) materials must be braced to prevent motion, and so loaded to protect valves and other fittings from damage.
- Containers in transit must be protected from an undue rise in temperature.
- Containers and their contents must be protected from tampering between point of origin and point of billed destination.
- The loading and unloading of a cargo tank must be attended at all times by a qualified person. ("Qualified person" and "attend" are both defined in Section 177.834(i).)
- The use of cargo heaters during the transport of flammable and explosive hazardous materials must be in compliance with Section 177.834(l).

Class-Specific Requirements

Whenever a highway shipment of hazardous materials is loaded or unloaded, the loading and unloading must be performed in accordance with the general requirements detailed in Section 177.834, as well as with the specific requirements for that class. These requirements can be found in Subpart B as follows:

- **Section 177.835 — Class 1 materials**
- **Section 177.840 — Class 2 (gases) materials**

Example Cylinders containing Class 2 gases must be securely restrained in an upright or horizontal position, loaded in racks, or packed in boxes or crates to prevent the cylinders form being shifted, overturned or ejected from the motor vehicle under normal transportation conditions. However, after December 31, 2003, a pressure relief device, when installed, must be in communication with the vapor space of a cylinder containing a Division 2.1 (flammable gas) material.

- **Section 177.837 — Class 3 materials**

Example Unless the engine of a cargo tank motor vehicle is to be used for the operation of a pump, no Class 3 (flammable liquid) material may be loaded into, or on, or unloaded from any cargo tank motor vehicle while the engine is running. The diesel engine of a cargo tank motor vehicle may be left running during the loading and unloading of a Class 3 material if the ambient atmospheric temperature is at or below -12ºC (10ºF).

- **Section 177.838 — Class 4 (flammable solid) materials, Class 5 (oxidizing) materials, and Division 4.2 (pyrophoric liquids)**

Example Cylinders containing Division 4.2 (pyrophoric liquid) materials, unless packed in a strong box or case and secured therein to protect valves, must be loaded with all valves and safety relief devices in the vapor space. All cylinders must be secured so that no shifting occurs during transit.

- **Section 177.841 — Division 6.1 and Division 2.3 materials**

A Division 2.3 (poison gas) or 6.1 (poisonous) material which is required to be marked with a POISON or POISON INHALATION HAZARD label may not be transported in the same motor vehicle with foodstuffs, feed or any edible material intended for consumption by human or animals.

Example A Division 2.3 (poison gas) or 6.1 (poisonous) material may be transported with foodstuffs, feed or any edible material intended for consumption by humans only if:

- The poisonous material is overpacked in a metal drum as specified in Section 173.25(c).
- The poisonous material is loaded into a closed unit load device and the foodstuffs, feed, or other edible material are loaded into another closed unit load device.

Example A Division 6.1, Packing Group III material which bears a POISON label displaying the text “PG III,” or bearing a “PG III” mark adjacent to the POISON label may be transported with foodstuffs, feed, or any other edible material for consumption by humans or animals if:

- The package with the poisonous material is separated in a manner that the hazardous materials would not commingle with the edible materials in the event of leakage from packages under normal conditions of transportation.

- **Section 177.842 — Class 7 (radioactive) material**
- **Section 177.839 — Class 8 (corrosive) materials**

Example No packaging of nitric acid of 50% or greater concentration (a Class 8 material) may be loaded above any packaging containing any other kind of material.

Segregation

For highway transportation, the segregation requirements detailed in Section 177.848 apply to materials which fall into one or more hazard classes, and are:

- In packages that require labels or placards,

- In a compartment within a multi-compartmented cargo tank (subject to the restrictions of Section 173.33), or
- In a portable tank loaded in a transport vehicle or freight container.

In general, these materials must be loaded, transported, and stored together only as specifie in the Segregation Table shown below.

- Cyanides, cyanide mixtures or solutions may not be stored, loaded and transported with acids;
- Division 4.2 materials may not be stored, loaded or transported with Class 8 liquids; and
- Division 6.1 Packing Group I, Hazard Zone A material may not be stored, loaded and transported with Class 3 material, Class 8 liquids, and Division 4.1, 4.2, 4.3, 5.1 or 5.2 material.

To use the Segregation Table:

(1) Locate the hazard classes or divisions of the materials in question — one in the vertical column, the other in the horizontal row.

(2) Follow each to the location where they intersect.

(3) The codes at the intersection are define as follows:

Code	Meaning
Blank	There are no restrictions. The materials may be loaded or stored together.
X	The materials may not be loaded, transported, or stored together.
O	The materials may not be loaded, transported, or stored together unless separated in a manner that — in the event of leakage — there would be no commingling of the materials under circumstances normal to transportation.
*	The segregation of Class 1 (explosive) materials is governed by the Compatibility Table for Class 1 (explosive) materials in Section 177.848(f).
A	Not withstanding the “X”, ammonium nitrate (UN1942) and ammonium nitrate fertilizer may be loaded or stored with Division 1.1 or 1.5 materials.

Segregation table for hazardous materials

Class or division		Notes	1.1 1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3 gas Zone A	2.3 gas Zone B	3	4.1	4.2	4.3	5.1	5.2	6.1 liquids PG 1 Zone A	7	8 liquids only
Explosives	1.1 and 1.2	A	*	*	*	*	*	X	X	X	X	X	X	X	X	X	X	X	X	X
Explosives	1.3							X		X	X	X		X	X	X	X	X		X
Explosives	1.4		*	*	*	*	*	O		O	O	O		O				O		O
Very insensitive explosives.	1.5	A	*	*	*	*	*	X	X	X	X	X	X	X	X	X	X	X	X	X
Extremely insensitive explosives.	1.6		*	*	*	*	*													
Flammable gases.....	2.1		X	X	O	X				X	O							O	O	
Non-toxic, non-flammabl gases.	2.2		X			X														
Poisonous gas Zone A	2.3		X	X	O	X		X				X	X	X	X	X	X			X
Poisonous gas Zone B	2.3		X	X	O	X		O				O	O	O	O	O	O			O
Flammable liquids	3		X	X	O	X				X	O					O		X		
Flammable solids	4.1		X			X				X	O							X		O
Spontaneously combustible materials.	4.2		X	X	O	X				X	O							X		X
Dangerous when wet materials.	4.3		X	X		X				X	O							X		O
Oxidizers.....	5.1	A	X	X		X				X	O	O						X		O
Organic peroxides	5.2		X	X		X				X	O							X		O
Poisonous liquids PG I Zone A.	6.1		X	X	O	X		O				X	X	X	X	X	X			X
Radioactive materials . .	7		X			X		O												
Corrosive liquids	8		X	X	O	X				X	O		O	X	O	O	O	X		

Additionally, Class 1 (explosive) materials may only be loaded, stored, and transported together as provided in the Compatibility Table.

Compatibility Table for Class 1 (Explosive) Materials

Compatibility Group	A	B	C	D	E	F	G	H	J	K	L	N	S
A		X	X	X	X	X	X	X	X	X	X	X	X
B	X		X	4	X	X	X	X	X	X	X	X	4/5
C	X	X		2	2	X	X	X	X	X	X	3	4/5
D	X	4	2		2	X	X	X	X	X	X	3	4/5
E	X	X	2	2		X	X	X	X	X	X	3	4/5
F	X	X	X	X	X		X	X	X	X	X	X	4/5
G	X	X	X	X	X	X		X	X	X	X	X	4/5
H	X	X	X	X	X	X	X		X	X	X	X	4/5
J	X	X	X	X	X	X	X	X		X	X	X	4/5
K	X	X	X	X	X	X	X	X	X		X	X	4/5
L	X	X	X	X	X	X	X	X	X	X	1	X	X
N	X	X	3	3	3	X	X	X	X	X	X		4/5
S	X	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	4/5	X	4/5	

In this table, the codes are defined as follows:

Code	Meaning
Blank	No restrictions apply.
X	Explosives of different compatibility groups may not be carried on the same transport vehicle.
1	An explosive from compatibility group L shall only be carried on the same transport vehicle with an identical explosive.
2	Any combination of explosives from compatibility groups C, D, or E is assigned to compatibility group E.
3	Any combination of explosives from compatibility groups C, D, or E, with those in compatibility group N, is assigned to compatibility group D.
4	Refer to Section 177.835(g) when transporting detonators.
5	Division 1.4S fireworks may not be loaded on the same transport vehicle with Division 1.1 or 1.2 materials.

Driving and Parking Rules

The driving and parking rules contained in Part 397 apply to each motor carrier who transports hazardous materials in a motor vehicle which is required to be marked or placarded. In general, these rules are as follows:

- Every motor vehicle must be driven and parked in compliance with the laws, ordinances, and regulations of the jurisdiction in which it is being operated.

- Except as provided in Section 397.5, a motor vehicle which contains Division 1.1, 1.2, or 1.3 materials must be attended at all times by its driver or by a qualified representative of the carrier.
- A motor vehicle which contains hazardous materials — other than Division 1.1, 1.2, or 1.3 materials — and is located on a public street or highway, or the shoulder of a public highway, must be attended by its driver. However, the vehicle is not required to be attended while its driver is performing duties which are incident and necessary to his duties as the vehicle's operator.
- A motor vehicle which contains Division 1.1, 1.2, or 1.3 materials must not be parked:
  - On or within 5 feet of the traveled portion of a public street or highway.
  - On private property, unless consent has been obtained.
  - Within 300 feet of a bridge, tunnel, dwelling, building, or other place where people congregate — except for brief periods when the necessities of operation require the vehicle to be parked and make it impractical to park in another place.
- A motor vehicle which contains hazardous materials — other than Division 1.1, 1.2, or 1.3 — must not be parked on or within 5 feet of the traveled portion of a public street or highway, except for brief periods when the necessities of operation require the vehicle to be parked and make it impractical to park in another place.
- A motor vehicle must not be operated near an open fire, unless the driver has taken precautions to ensure the vehicle can safely pass without stopping.
- No person may smoke or carry a lighted cigarette, cigar, or pipe within 25 feet of a vehicle that contains flammable, oxidizing, or explosive materials, or their residues.
- When fueling, the engine must be shut off, and the person in control of fueling must be at the point where the fuel tank is filled.
- The tires must be inspected at the beginning of each trip and each time the vehicle is parked.
- Motor carriers must comply with the routing requirements of the State or Indian tribe having jurisdiction in the area where the vehicle is being operated — providing that the requirements are in compliance with Part 397.

More detailed routing requirements can be found in Subparts C and D of Part 397, as well as in the STATE REQUIREMENTS section of this manual.

Example In Section 397.67, a motor carrier not subject to routing designations must " ... operate the vehicle over routes which do not go through or near heavily-populated areas, places where crowds are assembled, tunnels, narrow streets, or alleys, except where the motor carrier determines that:

- There is no practicable alternative,

- A reasonable deviation is necessary to reach terminals, points of loading and unloading, facilities for food, fuel, repairs, rest, or a safe haven, or
- A reasonable deviation is required by emergency conditions —such as a detour that has been established by a highway authority, or a situation exists where a law enforcement official requires the driver to take an alternative route."

Example In California, transporters of inhalation hazards in bulk containers are to use the inhalation hazard routes and stopping places established by the Highway Patrol. These are listed in the California Highway Patrol's publication "Inhalation Hazard Shipments: Routes, Stopping Places, and Equipment" (HPH 84.5).

Carrier Information Contact

When a transport vehicle (semi-trailer or freight container-on-chassis) contains hazardous material for which a shipping paper is required and it is separated from its motive power and parked at a location (other than a facility operated by the consignor or consignee or a facility subject to the emergency response information requirements in §172.602(c)(2)) the carrier shall:

- Mark the vehicle with the telephone number of the motor carrier on the front near the brake hose and electrical connections, or on a label, tag, or sign attached at the brake hose or electrical connection; or
- Have the shipping paper and emergency response information readily available on the transport vehicle; or
- Mark the transport vehicle with the identification number of each hazardous material contained within. The number(s) may be placed on an orange panel, a placard, or a plain white square-on-point configuration. The identification numbers must be visible on the outside of the vehicle.

Reserved

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ACCIDENTS & INCIDENTS

Reserved

Overview

Even when all possible precautions are taken, accidents and incidents can and will happen. And when hazardous materials are involved, the risks to health and the environment are that much greater. Because of this fact, the Hazardous Materials Regulations require "hazmat employers" to train their "hazmat employees" on the proper procedures for responding quickly and safely to leaks, spills, and other such emergencies. The regulations also require carriers of all modes to provide proper notification of hazardous material incidents. The information provided by these notifications is used to enhance the standards governing hazardous materials transportation.

This section of the manual will detail PHMSA's requirements for incident reporting, and will address some of the modal-specific requirements for accidents involving hazardous materials. It will also provide guidance for first responders regarding on-scene safety.

Note: Safety training for hazmat employees is addressed under the TRAINING tab.

Carrier Incident Contact (Section 172.606)

Applicability

PHMSA's requirement for carrier incident contact applies to all modes of transportation - rail, air, vessel, and highway.

Carrier Responsibility

Each carrier who transports or accepts for transportation a hazardous material, for which a shipping paper is required, must instruct the operator of the vehicle, train, aircraft, or vessel to contact them (the carrier) in the event of an incident involving the hazardous material.

Operator Responsibility

Each operator of a vehicle, train, aircraft, or vessel should contact their employer (carrier) when there is an incident involving hazardous materials.

Incident Reporting (Sections 171.15 - 171.16)

Applicability

PHMSA's requirements for incident reporting apply to all modes of transportation — including rail, air, vessel, and highway.

Responsibility

The carrier is responsible for reporting any incident that occurs during the course of loading, unloading, transportation, or temporary storage. An "incident" is any of the situations requiring a telephone report as specified in Section 171.15 or any unintentional release of hazardous materials from a package (including a tank). The type of report that must be filed — telephone and/or written — will be dictated by the incident's severity. Although it is not required, any interested person (including the shipper) may file such reports.

Accidents vs. Incidents

It is important to understand that an "incident" may, or may not have been, the result of an accident. It is also important to understand that each mode of transportation has specific accident reporting procedures — which may apply to incidents. These procedures will typically be located in the regulations regarding transportation safety.

Example: In the case of highway transportation, accident reporting procedures are detailed in the Federal Motor Carrier Safety Regulations. According to Section 390.15(b) of these regulations, the carrier is required to maintain " ... for a period of one year after an accident occurs, an accident register containing at least the following information:

A list of accidents containing for each accident:

- Date of accident,
- City or town in which, or most near where, the accident occurred, and the state in which the accident occurred,
- Driver name,
- Number of injuries,
- Number of fatalities, and
- Whether hazardous materials, other than fuel spilled from the fuel tanks of vehicles involved in the accident, were released."

Copies of all accident reports required by state or other governmental entities or insurers must also be retained.

Telephone Report

Incidents Requiring Report

As soon as practical, but no later than 12 hours after the occurrence of any incident, each person in physical possession of the hazardous material must provide notice by telephone to the National Response Center. Each notice must include the following:

(1) As a direct result of hazardous materials:

- A person is killed.
- A person receives injuries requiring admittance to a hospital.
- An evacuation of the general public occurs lasting one or more hours.
- One or more major transportation arteries or facilities are closed or shut down for one hour or more.
- The operational fligh pattern or routine of an aircraft is altered.

(2) Fire, breakage, spillage, or suspected radioactive contamination occurs involving a shipment of radioactive material.

(3) Fire, breakage, spillage, or suspected contamination occurs involving an infectious substance other than a diagnostic speciman or regulated medical waste.

(4) There has been a release of a marine pollutant in a quantity exceeding 450 L (119 gal) for liquids, or 400 kg (882 lb) for solids.

(5) A situation exists of such a nature that, in the judgment of the person in possession of the hazardous material, it should be reported even though it does not meet one of the above conditions.

(6) During transportation by aircraft, a fire violent rupture, explosion or dangerous evolution of heat (i.e., an amount of heat sufficient to be dangerous to packaging or personal safety to include charring of packaging, melting of packaging, scorching of packaging, or other evidence) occurs as a direct result of a battery or battery-powered device.

Agency Notificatio

The agency to notify may vary. The applicable telephone numbers are listed below.

Mode or Material	Who to Notify
Air, rail, water & highway	National Response Center (NRC) at **800-424-8802** (toll free) or **202-267-2675** (toll call)
Infectious substances	NRC at **800-424-8802** or **202-267-2675**

To expedite the reporting procedure, the following checklist should be used by the individual making the report.

HM INCIDENTS
Telephone Notificatio Checklist

When calling to report a hazardous material incident, be prepared to provide the following:

- ❑ Your name.
- ❑ Name and address of person you represent.
- ❑ Telephone number where you can be reached.
- ❑ Date, time, and location of the hazardous materials incident.
- ❑ Extent of injuries, if any.
- ❑ Class or division, proper shipping name, and quantity of hazardous materials involved, if available.
- ❑ Type of incident and nature of hazardous materials involvement.
- ❑ Whether a continuing danger to life exists.

Written Report

Incidents Requiring Report

Within 30 days of the date of discovery, the person in physical possession of the hazardous material must submit a Hazardous Materials Incident Report for each incident that:

- Involves an unintentional release of a hazardous material or the discharge of any quantity of hazardous waste.
- Involves a specificatio cargo tank with a capacity of 1,000 gallons or more that receives structural damage to the lading retention system or damage that requires repair to a system intended to protect the lading retention system, even if there is no release of hazardous material.
- Is subject to the telephone reporting requirements.
- Involves the discovery of undeclared hazardous material.
- Results in a fire violent rupture, explosion or dangerous evolution of heat (i.e., an amount of heat sufficient to be dangerous to packaging or personal safety to include charring of packaging, melting of packaging, scorching of packaging, or other evidence) occurs as a direct result of a battery or battery-powered device.

Updating the Incident Report

A Hazardous Materials Incident Report must be updated within one year when:

- A death results from injury caused by a hazardous material.
- There was a misidentificatio of the hazardous material or package information on a prior incident report.
- Damage, loss or related cost that was not known when the initial report was file becomes known.
- Damage, loss, or related cost changes by $25,000 or more, or 10% of the prior total estimate, whichever is greater.

Incidents Not Requiring Report

Unless a telephone report is required, an incident report is not required for:

- A release of a minimal amount of material from —
  - A vent, for materials for which venting is authorized.
  - The routine operation of a seal, pump, compressor, or valve.
  - The connection or disconnection of loading or unloading lines, provided the release does not result in property damage.
- An unintentional release of hazardous material when —
  - The material is properly classed as ORM-D or a PG III material in Class or Division 3, 4, 5, 6.1, 8, or 9.
  - Each package has a capacity of less than 20 liters (5.2 gallons) for liquids or less than 30 kg (66 pounds) for solids.
  - The total aggregate release is less than 20 liters (5.2 gallons) for liquids or less than 30 kg (66 pounds).
  - The material is not offered for transportation or transported by aircraft, a hazardous waste, or an undeclared hazardous material.

Agency Notificatio

In most instances, with some exception, incident reports may be file by mail or online (http://hazmat.dot.gov). To submit a report by mail, use the address below. For online filing follow the instructions for submitting an incident report.

The Hazardous Materials Incident Report must be submitted to:

Information Systems Manager, PHH-60

Pipeline and Hazardous Materials Safety Administration

Department of Transportation

East Building, 1200 New Jersey Avenue, SE

Washington, DC 20590-0001

Recordkeeping

A written or electronic copy of the Hazardous Materials Incident Report must be maintained for a period of two (2) years at:

- The reporting person's principal place of business, or if maintained somewhere else,
- Made available at the reporting person's principal place of business within 24 hours of a request by DOT.

Instructions for Completing the Written Report

A copy of the current Hazardous Materials Incident Report DOT Form 5800.1 (01-2004)and instructions for proper completion can be found on the following pages.

U.S. Department of Transportation
Research and Special Programs
Administration

Hazardous Materials Incident Report

Form Approval OMB No. 2137-0039

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 2137-0039. The filling out of this information is mandatory and will take 96 minutes to complete.

INSTRUCTIONS: Submit this report to the Information Systems Manager, U.S. Department of Transportation, Research and Special Programs Administration, Office of Hazardous Materials Safety, DHM-63, Washington, D.C. 20590-0001. If space provided for any item is inadequate, use a seperate sheet of paper, identifying the entry number being completed. Copies of this form and instructions can be obtained from the Office of Hazardous Materials Website at http://hazmat.dot.gov. If you have any questions, you can contact the Hazardous Materials Information Center at 1-800-HMR-4922 (1-800-467-4922) or online at http://hazmat.dot.gov.

PART I - REPORT TYPE

1. This is to report: ☐ A) A hazardous material incident ☐ B) An undeclared shipment with no release
☐ C) A specification cargo tank 1,000 gallons or greater containing any hazardous materials that (1) received structural damage to the lading retention system or damage that requires repair to a system intended to protect the lading retention system and (2) did not have a release.

2. Indicate whether this is: ☐ An initial report ☐ A supplemental (follow-up) report ☐ Additional Pages

PART II - GENERAL INCIDENT INFORMATION

3. Date of Incident: _____ 4. Time of Incident (use 24-hour time): _____

5. Enter National Response Center Report Number (if applicable): _____

6. If you submitted a report to another Federal DOT agency, enter the agency and report number: _____

7. Location of Incident: City: _____ County: _____ State: _____ ZIP Code (if known): _____

Street Address/Mile Marker/Yardname/Airport/Body of Water/River Mile _____

8. Mode of Transportation ☐ Air ☐ Highway ☐ Rail ☐ Water

9. Transportation Phase ☐ In Transit ☐ Loading ☐ Unloading ☐ In Transit Storage

10. Carrier/Reporter
Name _____
Street _____
City _____ State _____ ZIP Code _____
Federal DOT ID Number _____ Hazmat Registration Number _____

11. Shipper/Offeror
Name _____
Street _____
City _____ State _____ ZIP Code _____
Waybill/Shipping Paper _____ Hazmat Registration Number _____

12. Origin (if different from shipper address)
Street _____
City _____ State _____ ZIP Code _____

13. Destination
Street _____
City _____ State _____ ZIP Code _____

14. Proper Shipping Name of Hazardous Material: _____

15. Technical/Trade Name: _____

16. Hazardous Class/Division: _____ 17. Identification Number: _____ (E.g. UN2764, NA 2020) 18. Packing Group: _____ (if applicable) 19. Quantity Released: _____ (Include Measurement Units)

20. Was the material shipped as a hazardous waste? ☐ Yes ☐ No If yes, provide the EPA Manifest Number: _____

21. Is this a Toxic by Inhalation (TIH) material? ☐ Yes ☐ No If yes, provide the Hazard Zone: _____

22. Was the material shipped under an Exemption, Approval, or Competent Authority Certificate? ☐ Yes ☐ No
If yes, provide the Exemption, Approval, or CA number: _____

23. Was this an undeclared hazardous materials shipment? ☐ Yes ☐ No

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PART III - PACKAGING INFORMATION

24. Check Packaging Type (check only one - if more than one, list type of packaging, copy Part III, and complete for each type:

☐ Non-bulk ☐ IBC ☐ Cargo tank Motor Vehicle (CTMV) ☐ Tank Car

☐ Cylinder ☐ RAM ☐ Portable Tank ☐ Other _____

25. See instructions and enter the appropriate failure codes found at the end of the instructions. Be sure to enter the codes from the list that corresponds to the particular packaging type checked above. Enter the number of codes as appropriate to describe the incident. Enter the most important failure point in line 1. If there are more than two failure points, provide in this format in part VI.

1. What Failed: ___ ___ ___ How Failed: ___ ___ ___ Causes of Failure: ___ ___ ___

2. What Failed: ___ ___ ___ How Failed: ___ ___ ___ Causes of Failure: ___ ___ ___

26a. Provide the packaging identification markings, if available.

Identification Markings: _____

(Examples: 1A1/Y1.4/150/92/USA/RB/93/RL, UN31H1/Y0493/USA/M9339/10800/1200, DOT - 105A - 100W (RAIL), DOT 406 (HIGHWAY), DOT 51, DOT 3-A)

26b. For Non-bulk, IBC, or non-specification packaging, if identification markings are incomplete or unavailable, see instructions and complete the following:

Single Package or Outer Packaging:

Packaging Type: _____

Material of Construction: _____

Head Type (Drums only): ☐ Removable ☐ Non - Removable

Single Package or Inner Packaging (if any):

Packaging Type: _____

Material of Construction: _____

27. Describe the package capacity and the quantity:

Single Package or Outer Packaging:

Package Capacity: _____

Amount in Package: _____

Number in Shipment: _____

Number Failed: _____

Single Package or Inner Packaging (if any):

Package Capacity: _____

Amount in Package: _____

Number in Shipment: _____

Number Failed: _____

28. Provide packaging construction and test information, as appropriate:

Manufacturer: _____ Manufacture Date: _____

Serial Number: _____ Last Test Date: _____

Material of Construction: _____ (if Tank Car, CTMV, Portable Tank, or Cylinder)

Design Pressure: _____ (if Tank Car, CTMV, Portable Tank)

Shell Thickness: _____ (if Tank Car, CTMV, Portable Tank)

Head Thickness: _____ (if Tank Car, CTMV)

Service Pressure: _____ (if Cylinder)

If valve or device failed:

Type: _____ Manufacturer: _____ (if present and legible) Model: _____ (if present and legible)

29. If the packaging is for Radioactive Materials, complete the following:

Packaging Category: ☐ Type A ☐ Type B ☐ Type C ☐ Excepted ☐ Industrial

Packaging Certification: ☐ Self Certified ☐ U.S. Certification Certification Number _____

Nuclide(s) Present: _____ Transport Index: _____

Activity: _____ Critical Safety Index: _____

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PART IV - CONSEQUENCES

30. Result of Incident (check all that apply): ☐ Spillage ☐ Fire ☐ Explosion ☐ Material Entered Waterway/Storm Sewer ☐ Vapor (Gas) Dispersion ☐ Environmental Damage ☐ No Release

31. Emergency Response : The following entities responded to the incident: (Check all that apply)

☐ Fire/EMS Report # _____ ☐ Police Report # _____ ☐ In-house cleanup ☐ Other Cleanup

32. Damages: Was the total damage cost more than $500? ☐ Yes ☐ No

If yes, enter the following information: If no, go to question 33.

Material Loss: $ _____ Carrier Damage: $ _____ Property Damage: $ _____ Response Cost: $ _____ Remediation/Cleanup Cost: $ _____

(See damage definitions in the instructions)

33a. Did the hazardous material cause or contribute to a human fatality? ☐ Yes ☐ No

If yes, enter the number of fatalities resulting from the hazardous material:

Fatalities: Employees _____ Responders _____ General Public _____

33b. Were there human fatalities that did not result from the hazardous material? ☐ Yes ☐ No If yes, how many? _____

34. Did the hazardous material cause or contribute to personal injury? ☐ Yes ☐ No

If yes, enter the number of injuries resulting from the hazardous material:

Hospitalized (Admitted Only): Employees _____ Responders _____ General Public _____

Non-Hospitalized: Employees _____ Responders _____ General Public _____

(e.g.: On site first aid or Emergency Room observation and release)

35. Did the hazardous material cause or contribute to an evacuation? ☐ Yes ☐ No

If yes, provide the following information:

Total number of general public evacuated _____ Total number of employees evacuated _____ Total Evacuated _____

Duration of the evacuation _____ (hours)

36. Was a major transportation artery or facility closed? ☐ Yes ☐ No If yes, how many? _____ (hours)

37. Was the material involved in a crash or derailment? ☐ Yes ☐ No

If yes, provide the following information: Estimated speed (mph): _____ Weather conditions: _____

Vehicle overturn? ☐ Yes ☐ No

Vehicle left roadway/track? ☐ Yes ☐ No

PART V - AIR INCIDENT INFORMATION (please refer to § 175.31 to report a discrepancy for air shipments)

38. Was the shipment on a passenger aircraft? ☐ Yes ☐ No

If yes, was it tendered as cargo, or as passenger baggage?

☐ Cargo ☐ Passenger baggage

39. Where did the incident occur (if unknown, check the appropriate box for the location where the incident was discovered)?

☐ Air carrier cargo facility ☐ Sort center ☐ Baggage area

☐ By surface to/from airport ☐ During flight ☐ During loading/unloading of aircraft

40. What phase(s) had the shipment already undergone prior to the incident? (Check all that apply)

☐ Shipment had not been transported ☐ Transported by air (first flight) ☐ Transport by air (subsequent flights)

☐ Initial transport by highway to cargo facility ☐ Transfer at sort center/cargo facility

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PART VI - DESCRIPTION OF EVENTS & PACKAGE FAILURE

Describe the sequence of events that led to the incident and the actions taken at the time it was discovered. Describe the package failure, including the size and location of holes, cracks, etc. Photographs and diagrams should be submitted if needed for clarification. Estimate the duration of the release, if possible. Describe what was done to mitigate the effects of the release. Continue on additional sheets if necessary.

PART VII - RECOMMENDATIONS/ACTIONS TAKEN TO PREVENT RECURRENCE

Where you are able to do so, suggest or describe changes (such as additional training, use of better packaging, or improved operating procedures) to help prevent recurrence. Provide recommendations for improvement to hazardous materials transportation beyond the control of your individual company. Continue on additional sheets if necessary.

PART VIII- CONTACT INFORMATION

Contact's Name (Type or Print): _____ Telephone Number: ( ) _____

Contact's Title: _____ Fax Number: ( ) _____

Business Name and Address: _____ Hazmat Registration Number (if not already provided):

_____ _____

E-mail Address: _____ Date: _____

Preparer is: ☐ Carrier ☐ Shipper ☐ Facility ☐ Other _____

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INSTRUCTIONS

Please print. Fill in all applicable blanks accurately to the best of your ability.

Part I: Report Type

Item 1: *This is to report:* Check the box that describes why you are filling out this form. This will normally be "A) A hazardous material incident." If you are reporting an undeclared shipment with no release, check the corresponding box, "B)." If you are reporting an incident involving a cargo tank motor vehicle containing a hazardous material that received structural damage to the lading retention system that may affect its ability to retain lading but does not release a hazardous material, check that appropriate box, "C)."

Item 2: *Indicate what type of report this is:* If this is an initial report, check the "initial report" box. If this is a follow-up to a previous report, check the "A supplemental (follow-up) report" box. If you are using additional pages, check the "Additional Pages" box.

Part II: General Incident Information

Item 3 & 4: *Date & Time of Incident:* Enter the date and time the incident occurred. If you do not know the actual date and time, give the date and time you discovered the incident. Use 24-hour time for the incident time (*e.g.* "2400" for midnight, "1200" for noon, "0747" for 7:47 a.m., "2115" for 9:15 p.m.).

Item 5: *Enter National Response Center Report Number:* If this incident was reported to the National Response Center (NRC), fill in the report number NRC assigned to the incident.

Item 6: *If you submitted a report to another Federal DOT agency, enter the agency and report number:* If you were required to fill out a report for another federal DOT agency such as the Federal Railroad Administration or the Federal Motor Carrier Safety Administration for this incident, please include the agency and report number. This will facilitate the combination of information.

Item 7: *Location of Incident:* Enter the geographic location of the incident (city, county, state, and zip code). If you do not know the actual location where the incident occurred, give the location where it was discovered. If the incident occurred at an airport or rail yard, include the name of the facility. If the incident occurred on a body of water, include the name and/or river mile. If you do not know the street address, or if the incident occurred on a highway, include a description such as "On I-70, mile marker 240."

Item 8: *Mode of Transportation:* Enter the code that corresponds to the mode of transportation in which the incident occurred or was discovered. If the incident occurred or was discovered in an in-transit storage area (*e.g.,* a terminal or warehouse), check the box that corresponds to the mode by which the package was last transported.

Item 9: *Transportation Phase:* Enter the code that describes where the incident occurred in the transportation system. In transit means the incident occurred or was first discovered while the package was in the process of being transported. In-transit storage is storage incidental to transportation, such as at a terminal waiting for the next leg of transportation.

Item 10: *Carrier/Reporter:* Provide the name, street address, Federal DOT number (if applicable), and hazmat registration number of the carrier or the entity who is reporting the incident (if other than a carrier). The entity in physical possession of the material when the incident occurred or was discovered must report the incident.

Item 11: *Shipper/Offeror:* Enter the information about the person or entity that originally offered for transportation the material or package involved in the incident.

Item 12: *Origin:* Enter the origin of the shipment if the address is different than the shipper/offeror information entered in item #11.

Item 13: *Destination:* Enter the final destination of the shipment involved in the incident.

Item 14 through 19: *Hazardous Material Description:* Enter the proper shipping name, technical or trade name, hazard class or division, ID number, packing group, and amount of material released. All of this information, except the amount of material released, can be found on the shipping papers that accompany the shipment, §172.202. When indicating the amount of material released, include units of measurements (examples: 115 gallons, 69 tons).

Item 20: Was the material shipped as a hazardous waste? Check the "Yes" box if the material meets the definition of a hazardous waste in §171.8 (requires an EPA Uniform Hazardous Waste Manifest). Include the EPA Manifest number.

Item 21: Is this a Toxic by Inhalation (TIH) material? If the material involved in the incident meets the definition of a Toxic by Inhalation material in § 173.132, check the "Yes" box and enter the Hazard Zone in the space provided.

Item 22: Was the material shipped under an Exemption, Approval, or Competent Authority Certificate? If the shipment was shipped under an exemption, an approval, or a Competent Authority Certificate, check the "Yes" box and provide the appropriate assigned number.

Item 23: Was this an undeclared hazardous materials shipment? If this material was not indicated in any way to be a hazardous material even though it was required to be described as such on a shipping paper, or if the material would normally be excepted from the shipping paper requirements (such as a small quantity material) and does not have the required markings, it is considered an undeclared hazardous material shipment. Check the appropriate box.

Part III: Packaging Information

Item 24: *Packaging Type:* Check the box that corresponds to the type of packaging involved in the incident. If more than one packaging type was involved in an incident, reproduce Part III of the form and fill out this section for each of the packaging types. For example, if three different packaging types were involved in an incident, fill out a separate Part III for each packaging type. If the type of packaging is not represented, check the "Other" box and enter a brief description such as "non-specification bulk bin."

Item 25: Enter the appropriate failure codes (found at the end of the instructions): Enter the codes that describe what failed on the packaging, how the packaging failed, and the cause(s) of the failure. Be sure to enter the codes from the list that corresponds to the particular packaging types checked above (#24). Enter the most important failure point in line 1. If there is a second failure point, enter in line 2. If there are more than two failure points, provide additional information in this format in Part VI. The following explains the content of each line:

What Failed: You can enter up to 2 "What Failed" codes to describe the part of the packaging that fails and was the immediate cause of the release. Often, on a simple packaging, only one code will be required. On more complex packaging, additional entries will help identify where that failure occurred. The first entry should designate the specific point of failure, followed by entries that help identify where that failure occurred. For instance, a deteriorated gasket on a pipe flange on the liquid line would have failure code 121 for gasket entered first and failure code 118 for flange entered second.

How Failed: Enter the "Failure" code that describes how the corresponding part of the packaging failed. The primary way the packaging failed should be entered first.

Cause(s) of Failure: Enter the "Cause of Failure" code that describes what caused the corresponding part of the packaging to fail in the way it did. The most probable or fundamental cause of failure should be entered first.

If none of the codes on the list fit exactly, use the closest matches and provide additional detail in Part VI. Also, if you believe a better set of codes would be more descriptive of what failed, how it failed, and the causes of failure, suggest them in Part VII.

Item 26a: *Provide the complete packaging identification markings, if available:* Every specification packaging, UN or DOT, has a packaging identification printed or stamped on it or on a plate attached to the packaging. Examples are provided on the form.

Item 26b: *For Non-bulk, IBC, or non-specification packaging:* Only fill out 26b if the marking is incomplete, destroyed, or unknown. Fill in the Outer and Inner packaging type and material of construction information, as appropriate. If the packaging is Non-bulk or Intermediate Bulk Container (IBC), use the codes below to enter the number or letter that applies for either Non-bulk or IBC packaging. For non-bulk, IBC or non-specification packaging provide a description of the packaging in the space(s) provided.

Non-bulk Packaging Identification Codes

Outer Packaging
Type
1 = Drum
2 = Wooden Barrel
3 = Jerrican
4 = Box
5 = Bag
6 = Composite Packaging
7 = Pressure Receptacle

Material
A = Steel
B = Aluminum
C = Natural Wood
D = Plywood
F = Reconstituted Wood
G = Fiberboard
H = Plastic
L = Textile
M = Paper, Multi-Wall
N = Metal Other Than Steel or Aluminum
P = Glass, Porcelain, or Stoneware

Head Type
1 = Non-removable
2 = Removable

Inner Packaging
Type
1 = Bottle
2 = Can
3 = Box
4 = Bag
5 = Cylinder

Material
A = Metal (any type)
B = Glass, Porcelain, or Stoneware
C = Plastic
D = Fiberboard or Cardboard
E = Wood (any type)

IBC Packaging Identification Codes

Material of Construction
1-Metal
2-Plastic
3-Composite
4-Fiberboard
5-Wooden
6-Flexible

Item 27: *Describe the package capacity and the quantity:* Enter the total capacity of the inner and outer package. Also enter the actual amount of hazardous material that was shipped in the package, the number of packages in the shipment, and the number of packages that failed. Please include the units of measurement (liter, gallons, pounds, cubic feet, etc.)

Item 28: *Provide package construction and test information, as appropriate:* In the case of Non-bulk packagings or IBCs enter the name of the packaging manufacturer or the symbol of the manufacturer only if complete identification markings were not provided in #26b. Enter the date of manufacture and the serial number, if applicable. Enter the last test date if the packaging requires periodic testing. Also include the design pressure, shell thickness, head thickness, and service pressure if the failed packagings are of the type indicated in parenthesis after each question. If the packaging contained a valve, or other device

that failed and resulted in a hazardous material release, enter the valve or device type, manufacturer (if present and legible), and model number (if present and legible).

Item 29: If the package is for Radioactive Materials, complete the following: Complete this question only if a radioactive material was involved. Indicate the packaging category, the packaging certification, certification number, and which nuclides were present, the transportation index (TI), activity of the nuclides, and the criticality safety index.

Part IV: Consequences

Item 30: *Result of Incident:* Check all boxes that describe what occurred during the incident or as a result of the incident. For example, in a situation where a truckload of 55 gallon drums of corrosive liquids overturns resulting in a release that contaminates a nearby wetlands and stream the boxes "Spillage," "Material Entered Waterway/Storm Sewer," and "Environmental Damage" may apply.

Item 31: *Emergency Response:* Check all boxes that correspond with any emergency response and cleanup crews that participated in resolving the incident. If a fire crew, EMS, or police unit responded to the incident, include the report number.

Item 32: *Damages:* You are required to provide information on estimated damages if your damages exceed $500.00. This figure includes the cost of the material lost, property damage, vehicle damage, response costs, and clean-up costs. If you do not know these amounts at the time you complete the report, or the actual costs are revised by more than $25,000, you must submit a follow-up report after you determine the amounts. The following definitions explain each of the costs:

Material Loss: Enter the value of material released and unrecoverable. Base this entry on the amount of material released multiplied by the unit value (*e.g.,* price per gallon or price per pound) as listed on the shipper's invoice. If the invoice is not available, estimate the cost per unit using the shipper's basis.

Carrier Damage: Enter the total value of damage incurred by the carrier. Major components include costs to repair the damaged vehicle and costs resulting from damage to cargo. If the vehicle is declared "totaled," enter the insured value of the vehicle. This entry should not include damage to other property or to vehicles owned by other persons.

Property Damage: Enter the total value of costs resulting from damage to the property of others involved in the incident. These include: repair and replacement costs of other vehicles; repair and replacement costs to buildings and other fixed facilities; and restoration of open land beyond decontamination and cleanup.

Response Cost: Enter the total value of response costs. Response costs are those costs incurred immediately after the incident, and include local emergency response from police and fire departments and emergency response teams, as well as costs incurred by the responsible party. Response costs also include costs to contain the hazardous material released.

Remediation/Cleanup Cost: Enter the total value of the cost to cleanup and remediate the site. Cleanup costs are those costs incurred to collect, transport, and ultimately dispose of all material collected during the response phase. Remediation costs are those costs incurred to restore the incident scene to its pre-incident state, and could include excavation, disposal and replacement of contaminated soil, pumping, treatment and re-injection of contaminated groundwater, or absorption and disposal of hazardous material released into surface water.

Item 33a: Did the hazardous material cause or contribute to a human fatality? If a person was fatally injured by contact with the hazardous material or its vapors or by a fire or explosion that resulted from the hazardous material, check the "Yes" box and enter the number of fatalities that resulted directly from the hazardous material.

Item 33b: Were there human fatalities that did not result from the hazardous material? If the fatalities were not caused directly by the hazardous material, check the "Yes" box and enter the number of fatalities. An example: if a passenger car collided with a cargo tank carrying gasoline and the automobile driver was killed due to the collision, then the fatality was not caused by the hazardous material released. If, however, the accident resulted in the release of gasoline from the cargo tank and a resulting fire killed the automobile driver, then the fatality was caused by the hazardous material.

Item 34: Did the hazardous material cause or contribute to a personal injury? If a person was injured by contact with the hazardous material or its vapors or by a fire or explosion that resulted from the hazardous material, check the "Yes" box and enter the number of persons injured by the hazardous material.

Hospitalized means admitted to a medical facility, not treated and released from a facility, such as a hospital emergency room, where the person was never admitted to the hospital proper. Non-hospitalized individuals are those who may have received attention from medical personnel on-site or at a facility (including hospital emergency room), but were not admitted to a medical facility. Indicate the number of injured employees, emergency responders (firefighters, police, medics, etc.) and members of the general public.

Item 35: Did the hazardous material cause or contribute to an evacuation? If the incident required the evacuation or removal of persons from a specific area because of possible or actual contact with the hazardous materials involved in the incident, check the "Yes" box. Separately specify the numbers of individuals from the general public evacuated and number of employees of the facility or workers in the area that were evacuated. Also provide the total number of individuals evacuated. Indicate the duration of the evacuation (in hours).

Item 36: Was a transportation artery or facility closed? If a road or transportation facility was closed due to the incident, check the "Yes" box and indicate the duration (in hours) here.

Item 37: Was the material involved in a crash or derailment? Check the "Yes" box if a hazardous material was involved in a crash or derailment. Provide the estimated speed and weather conditions at the time of the crash, such as rain, blowing snow, sleet, iced roadway, sun glare, fog, dry pavement, high winds, etc. Indicate if the vehicle overturned or left the roadway or track.

Part V: Air Incident Information

This section is for incidents with packagings transported or intended for transportation by aircraft. If your packaging was not transported or intended to be transported by air, skip this section.

Item 38: Was the shipment on a passenger aircraft? Indicate whether the shipment in question was on a commercial passenger aircraft. If so, indicate if the material was tendered (accepted for shipment) as cargo, or was located in a passenger's baggage, either in the cabin or baggage compartment.

Item 39: Where did the incident occur or where was the incident discovered? Indicate where in the course of transportation the incident occurred or was discovered.

Item 40: What phase(s) had the shipment already undergone prior to the incident? Check all boxes that describe the transportation phases the shipment went through before the incident occurred or was discovered.

Part VI: Description of Events and Packaging Failure

Please describe the events involved in the incident to provide a better understanding of the incident. Include information that has not been collected elsewhere on this form, and include special scenarios, outstanding circumstances, or other information that provides a complete picture of the incident. Describe the sequence of events that led to the incident, the package failure (if any) and actions taken at the time of discovery. Submit photographs and diagrams when necessary for clarification. You may continue on additional sheets if necessary.

Part VII: Recommendations/Actions Taken To Prevent Future Incidents

Recommendations may be preliminary in nature, may suggest actions by other parties, and may be subject to further investigation, refinement, acceptance, or rejection. Often, it may be beyond the ability of the preparer to offer recommendations, but where such recommendations can be made they have the potential of resulting in important improvements with safety benefits. For instance, such information can help companies identify common problems and alert the DOT to the need for additional measures such as outreach or broad training needs. This information can also help support regulatory changes.

Part VIII: Contact Information

Provide the name, title, telephone number, fax number, business name and address, hazmat registration number and email address of the contact person at your company who can answer questions about the information provided on this form. Make sure to check the box that describes the function of your firm: carrier, shipper, facility owner/operator, or other. If "Other" is checked, describe the function.

Instructions for Form DOT F 5800.1—Failure Codes for Part 3 of Form DOT F 5800.1

Complete Listing—All Packaging Types

Code	What Failed
101	Air Inlet
102	Auxiliary Valve
103	Basic Material
104	Body
105	Bolts or Nuts
106	Bottom Outlet Valve
107	Check Valve
108	Chime
109	Closure (*e.g.*, Cap, Top, or Plug)
110	Cover
111	Cylinder Neck or Shoulder
112	Cylinder Sidewall—Near Base
113	Cylinder Sidewall—Other
114	Cylinder Valve
115	Discharge Valve or Coupling
116	Excess Flow Valve
117	Fill Hole
118	Flange
119	Frangible Disc
120	Fusible Pressure Relief Device or Element
121	Gasket
122	Gauging Device
123	Heater Coil
124	High Level Sensor
125	Hose
126	Hose Adaptor or Coupling
127	Inlet (Loading) Valve
128	Inner Packaging
129	Inner Receptacle
130	Lifting Feature
131	Lifting Lug
132	Liner
133	Liquid Line
134	Liquid Valve
135	Loading or Unloading Lines
136	Locking Bar
137	Manway or Dome Cover
138	Mounting Studs
139	O-Ring or Seals
140	Outer Frame
141	Piping or Fittings
142	Piping Shear Section
143	Pressure Relief Valve or Device—Non-Reclosing
144	Pressure Relief Valve or Device—Reclosing
145	Remote Control Device
146	Sample Line
147	Stub Still (Tank Car)
148	Sump
149	Tank Head
150	Tank Shell
151	Thermometer Well
152	Threaded Connection
153	Vacuum Relief Valve
154	Valve Body
155	Valve Seat
156	Valve Spring
157	Valve Stem
158	Vapor Valve
159	Vent

Code	What Failed
160	Washout
161	Weld or Seam

Code	How Failed
301	Abraded
302	Bent
303	Burst or Ruptured
304	Cracked
305	Crushed
306	Failed to Operate
307	Gouged or Cut
308	Leaked
309	Punctured
310	Ripped or Torn
311	Structural
312	Torn Off or Damaged
313	Vented

Code	Cause(s) of Failure
501	Abrasion
502	Broken Component or Device
503	Commodity Self-Ignition
504	Commodity Polymerization
505	Conveyor or Material Handling Equipment Mishap
506	Corrosion—Exterior
507	Corrosion—Interior
508	Defective Component or Device
509	Derailment
510	Deterioration or Aging
511	Dropped
512	Fire, Temperature, or Heat
513	Forklift Accident
514	Freezing
515	Human Error
516	Impact with Sharp or Protruding Object *(e.g.,* nails)
517	Improper Preparation for Transportation
518	Inadequate Accident Damage Protection
519	Inadequate Blocking and Bracing
520	Inadequate Maintenance
521	Inadequate Preparation for Transportation
522	Inadequate Procedures
523	Inadequate Training
524	Incompatible Product
525	Incorrectly Sized Component or Device
526	Loose Closure, Component, or Device
527	Misaligned Material, Component, or Device
528	Missing Component or Device
529	Overfilled
530	Overpressurized
531	Rollover Accident
532	Stub Sill Separation from Tank (Tank Cars)
533	Threads Worn or Cross Threaded
534	Too Much Weight on Package
535	Valve Open
536	Vandalism
537	Vehicular Crash or Accident Damage
538	Water Damage

General Non-bulk and IBCs

Code	What Failed
103	Basic Material
104	Body
105	Bolts or Nuts
108	Chime
109	Closure (*e.g.*, Cap, Top, or Plug)
110	Cover
119	Frangible Disc
120	Fusible Pressure Relief Device or Element
121	Gasket
125	Hose
128	Inner Packaging
129	Inner Receptacle
130	Lifting Feature
132	Liner
140	Outer Frame
143	Pressure Relief Valve or Device—Non-Reclosing
144	Pressure Relief Valve or Device—Reclosing
161	Weld or Seam

Code	How Failed
301	Abraded
302	Bent
303	Burst or Ruptured
304	Cracked
305	Crushed
306	Failed to Operate
307	Gouged or Cut
308	Leaked
309	Punctured
310	Ripped or Torn

Code	How Failed
311	Structural
312	Torn Off or Damaged
313	Vented

Code	Causes of Failure
501	Abrasion
503	Commodity Self-Ignition
504	Commodity Polymerization
505	Conveyer or Material Handling Equipment Mishap
506	Corrosion—Exterior
507	Corrosion—Interior
508	Defective Component or Device
510	Deterioration or Aging
511	Dropped
513	Forklift Accident
514	Freezing
515	Human Error
516	Impact with Sharp or Protruding Object (*e.g.,* nails)
517	Improper Preparation for Transportation
521	Inadequate Preparation for Transportation
522	Inadequate Procedures
523	Inadequate Training
529	Overfilled
530	Overpressurized
534	Too Much Weight on Package
535	Valve Open
536	Vandalism
537	Vehicular Crash or Accident Damage
538	Water Damage

Cylinders

Code	What Failed
111	Cylinder Neck or Shoulder
112	Cylinder Sidewall—Near Base
113	Cylinder Sidewall—Other
114	Cylinder Valve
119	Frangible Disc
120	Fusible Pressure Relief Device or Element
122	Gauging Device
132	Liner
143	Pressure Relief Valve or Device-Non-Reclosing
144	Pressure Relief Valve or Device-Reclosing
161	Weld or Seam

Code	How Failed
301	Abraded
303	Burst or Ruptured
304	Cracked
306	Failed to Operate
307	Gouged or Cut
308	Leaked
309	Punctured
313	Vented

Code	Cause(s) of Failure
501	Abrasion
502	Broken Component or Device
503	Commodity Self-Ignition
504	Commodity Polymerization
505	Conveyer or Material Handling Equipment Mishap
506	Corrosion—Exterior
507	Corrosion—Interior
508	Defective Component or Device
510	Deterioration or Aging
512	Fire, Temperature, or Heat
513	Forklift Accident
514	Freezing
515	Human Error
516	Impact with Sharp or Protruding Object (*e.g.,* nails)
517	Improper Preparation for Transportation
519	Inadequate Blocking and Bracing
520	Inadequate Maintenance
521	Inadequate Preparation for Transportation
522	Inadequate Procedures
523	Inadequate Training
524	Incompatible Product
525	Incorrectly Sized Component or Device
526	Loose Closure, Component, or Device
527	Misaligned Material, Component, or Device
528	Missing Component or Device
529	Overfilled
530	Overpressurized
535	Valve Open
536	Vandalism
537	Vehicular Crash or Accident Damage

Portable Tanks

Code	What Failed
105	Bolts or Nuts
106	Bottom Outlet Valve
107	Check Valve
108	Chime

Code	What Failed
109	Closure (*e.g.,* Cap, Top, or Plug)
110	Cover
119	Frangible Disc
120	Fusible Pressure Relief Device or Element
121	Gasket
122	Gauging Device
125	Hose
127	Inlet (Loading) Valve
131	Lifting Lug
132	Liner
135	Loading or Unloading Lines
137	Manway or Dome Cover
140	Outer Frame
141	Piping or Fittings
143	Pressure Relief Valve or Device—Non-Reclosing
144	Pressure Relief Valve or Device—Reclosing
152	Threaded Connection
153	Vacuum Relief Valve
161	Weld or Seam

Code	How Failed
301	Abraded
302	Bent
303	Burst or Ruptured
304	Cracked
305	Crushed
306	Failed to Operate
307	Gouged or Cut
308	Leaked
309	Punctured
310	Ripped or Torn
312	Torn Off or Damaged
313	Vented

Code	Cause(s) of Failure
501	Abrasion
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503	Commodity Self-Ignition
504	Commodity Polymerization
505	Conveyer or Material Handling Equipment Mishap
506	Corrosion—Exterior
507	Corrosion—Interior
508	Defective Component or Device
509	Derailment
510	Deterioration or Aging
511	Dropped
512	Fire, Temperature, or Heat
514	Freezing
515	Human Error
517	Improper Preparation for Transportation
520	Inadequate Maintenance
521	Inadequate Preparation for Transportation
522	Inadequate Procedures
523	Inadequate Training
524	Incompatible Product
525	Incorrectly Sized Component or Device
526	Loose Closure, Component, or Device
527	Misaligned Material, Component, or Device
528	Missing Component or Device
529	Overfilled
530	Overpressurized
531	Rollover Accident
536	Vandalism
537	Vehicular Crash or Accident Damage

Bulk Tank Vehicles—Cargo Tank Motor Vehicles (CTMV) and Tank Cars

Code	What Failed
101	Air Inlet
105	Bolts or Nuts
106	Bottom Outlet Valve
107	Check Valve
110	Cover
115	Discharge Valve or Coupling
116	Excess Flow Valve
117	Fill Hole
118	Flange
119	Frangible Disc
120	Fusible Pressure Relief Device or Element
121	Gasket
122	Gauging Device
123	Heater Coil
124	High Level Sensor
125	Hose
126	Hose Adaptor or Coupling
127	Inlet (Loading) Valve
131	Lifting Lug
132	Liner
133	Liquid Line
134	Liquid Valve
135	Loading or Unloading Lines
136	Locking Bar
137	Manway or Dome Cover
138	Mounting Studs

Code	What Failed
139	O-Ring or Seals
141	Piping or Fittings
142	Piping Shear Section
143	Pressure Relief Valve or Device—Non-Reclosing
144	Pressure Relief Valve or Device—Reclosing
145	Remote Control Device
146	Sample Line
147	Stub Still (Tank Car)
148	Sump
149	Tank Head
150	Tank Shell
151	Thermometer Well
152	Threaded Connection
153	Vacuum Relief Valve
154	Valve Body
155	Valve Seat
156	Valve Spring
157	Valve Stem
158	Vapor Valve
159	Vent
160	Washout
161	Weld or Seam

Code	How Failed
301	Abraded
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508	Defective Component or Device
509	Derailment
510	Deterioration or Aging
511	Dropped
512	Fire, Temperature, or Heat
515	Human Error
517	Improper Preparation for Transportation
518	Inadequate Accident Damage Protection
519	Inadequate Blocking and Bracing
520	Inadequate Maintenance
521	Inadequate Preparation for Transportation
522	Inadequate Procedures
523	Inadequate Training
524	Incompatible Product
525	Incorrectly Sized Component or Device
526	Loose Closure, Component, or Device
527	Misaligned Material, Component, or Device
528	Missing Component or Device
529	Overfilled
530	Overpressurized
531	Rollover Accident
532	Stub Sill Separation from Tank (Tank Cars)
533	Threads Worn or Cross Threaded
536	Vandalism
537	Vehicular Crash or Accident Damage

Accidents Involving Hazardous Materials

Special Requirements: Vessel (Sections 176.45 - 176.48)

In addition to the incident reporting requirements detailed under "Incident Reporting," vessel carriers are subject to a number of specific requirements when accidents occur on a vessel and hazardous materials are involved.

- If an accident involving hazardous materials occurs on a vessel and endangers the safety of the vessel, passengers, or crew, the master of the vessel must adopt procedures to provide maximum safety for all concerned.
- If such an accident results in damaged packages of hazardous materials — or results in the emergency use of unauthorized packagings — such packages may not be offered to any forwarding carrier for continued transportation. The master must notify the nearest Captain of the Port of the U.S. Coast Guard for further instructions regarding disposition.
- Whenever a fire occurs or another hazardous condition exists on board a vessel carrying hazardous materials, the master must notify the nearest Captain of the Port as soon as possible and comply with instructions received.
- Hazardous materials may be jettisoned only if the master believes this action necessary to prevent or substantially reduce a hazard to human life or reduce a substantial hazard to property.
- In the event a package, freight container, portable tank, highway, or rail vehicle containing a hazardous material is jettisoned or lost, the master must notify the nearest Captain of the Port as soon as possible and provide the location, quantity, and type of material lost.

Special Requirements: Highway (Sections 177.854 - 177.861)

Highway carriers must comply with the incident reporting procedures (as applicable), as well as with the class-specific procedures detailed in the regulations as follows:

- Section 177.854 — Disabled vehicles and broken or leaking packages; repairs

This section does not require additional reporting, but rather concentrates on safety actions which are to be followed to minimize the dangers to life and property.

Guidelines for First Responders

First responders at the scene of an accident or incident are expected to recognize the presence of hazardous materials, protect themselves and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. The guidelines that follow should be reviewed by all individuals who may find themselves in a position to be a first responder.

On-Scene Safety

Responding to any accident or incident involving hazardous materials requires that you follow certain procedures. Doing so will minimize the hazards to both your safety and the environment.

Approach Cautiously

Resist the urge to rush in. You cannot help others until you know what hazards you are facing.

Identify the Hazards

Placards, container labels, shipping papers, and/or knowledgeable persons at the scene are valuable information sources. Evaluate all of them, and then consult the emergency response information provided with the shipment. If using RSPA's *Emergency Response Guidebook* (ERG), remember that the guides provide only the most important information for your initial response in relation to a class of hazardous materials. As more material-specific information becomes available, your response should become more appropriate for the situation.

Secure the Scene

Without entering the immediate hazard area, do what you can to isolate the area and assure the safety of people and the environment. Move and keep people away from the scene and the perimeter. Allow enough room to move and remove your own equipment. Remove any possible sources of ignition.

Obtain Help

Do not hesitate to call for help. To wait for help is often the best course of action (see "Getting Assistance").

Decide on Site Entry

Any efforts you make to rescue persons and protect property and the environment must be weighed against the possibility that you could become part of the problem. Enter the area only when wearing the appropriate personal protective equipment (PPE). And remember, do not attempt to take any action beyond your level of training!

Avoid Contact

Above all, do not walk into or touch spilled material. Avoid the inhalation of fumes, smoke, and vapors — even if no hazardous materials are known to be involved. Do not assume that gases or vapors are harmless because of a lack of smell. Odorless gases or vapors may be harmful, and even fatal in some instances.

Getting Assistance

If you are a first responder at the scene, you will be expected to call for the assistance of trained personnel as soon as conditions permit. Typically, the sequence of notification is as follows:

(1) **Notify Your Organization/Agency** — This will set in motion a series of events based on the information you provide. Actions may include dispatching trained response personnel, activating the local emergency response plan, and notifying responsible agencies.

(2) **Call the Emergency Response Number** — Refer to the shipping paper to obtain the appropriate emergency response number. This number will put you in contact with a person who is knowledgeable of the materials and mitigation actions to be taken, or who has immediate access to such a person.

(3) **Other Options** — If the situation is an emergency and a shipping paper is unavailable, or the emergency response number has not been listed, call one of the following for emergency response information:

- CHEMTREC (1-800-424-9300)
- CHEM-TEL, INC. (1-800-255-3924)
- INFOTRAC (1-800-535-5053)
- 3E COMPANY (1-800-451-8346)

When calling, be prepared to provide as much of the following information as can be obtained:

- Your name and call-back telephone number
- Location and nature of the problem
- Name of the material(s) involved
- Shipper or manufacturer
- Container type
- Rail car or truck number
- Carrier name

- Consignee
- Local conditions

(4) **Military Shipments** — For incidents involving military shipments, there are two numbers to choose from, depending on the type of incident:

- For explosives/ammunition incidents call (703) 697-0218 (collect calls are accepted)
- For all other dangerous goods incidents, call 1-800-851-8061

Other Considerations

Depending on your level of involvement with the accident or incident, it may be necessary for you to take some follow-up actions.

Decontamination

If you were exposed to the spilled material, or were involved with the actual clean-up, you must be sure to follow established decontamination procedures. Decontamination consists of physically removing contaminants or changing their chemical nature to innocuous substances. How extensive decontamination must be depends on a number of factors — the most important being the type(s) of hazardous material(s) involved.

Disposal of Waste Materials

Hazardous materials that are released during the course of an accident or incident become hazardous wastes, as do the products used for control and clean up. If you are involved with control and clean-up, you must be sure to comply with the Environmental Protection Agency's requirements for proper disposal. The applicable material safety data sheets (MSDSs), as well as facility procedures should be consulted for guidance.

Reports and Notifications

Incidents involving hazardous materials require proper notification. If you are the carrier, you will be responsible for making these notifications. If you are not, your knowledge of what occurred at the scene may be valuable to the carrier. Be prepared to provide assistance, if called on to do so.

TABLE OF CONTENTS

QUESTIONS & ANSWERS

Introduction

The purpose of this section is to help you understand the Hazardous Materials Regulations (HMR). This section contains commonly asked questions and their answers. It also contains examples of shipping papers, marking, labeling, and placarding.

This section is organized by topic (see previous pages for table of contents).

Because of the constantly changing nature of government regulations, it is impossible to guarantee absolute accuracy of the materials contained in this section. This section is designed to provide reasonably accurate and authoritative information in regard to the subject matter covered. If legal advice or other expert assistance is required, the services of a competent professional should be sought.

The Regulations

1. Do the HMR apply to governmental entities?

Shipments of hazardous materials transported by a government entity in vehicles operated by government personnel for noncommercial purposes are not subject to the HMR. However, if the purpose is commercial or if the government entity offers hazardous materials for transportation to commercial carriers, then the HMR applies.

2. May import shipments of hazardous materials from Canada to the U.S. remain labeled in accordance with the Canadian Transport of Dangerous Goods Regulations (TDG Regulations) if they are stored in U.S. warehouses for indefinit periods of time, prior to being reshipped to end users?

Under the provisions of 49 CFR Part 171, a hazardous material may be classed, packaged, marked, placarded, and described on a shipping paper in accordance with the TDG regulations for transportation from point of entry in the U.S. to its destination. These provisions apply to domestic portions of the transportation, even if warehousing is involved, until the hazardous material reaches the end user.

3. May the International Air Transport Association's (IATA) Dangerous Goods Regulations be used to prepare hazardous materials for transportation by air instead of the International Civil Aviation Organization's (ICAO) Technical Instructions for the Safe Transport of Dangerous Goods?

The IATA Regulations do not have official standing within the U.S. The regulations recognized by the Department of Transportation, and authorized under conditions prescribed in 49 CFR Part 171 Subpart C as an alternative to compliance with the HMR, are contained in the ICAO Technical Instructions. Although the IATA Regulations are similar, they do not have the force of law in the U.S. and they differ, in some instances, from the ICAO Technical Instructions. The IATA Regulations serve a number of useful pur poses, such as informing shippers of carrier exceptions. However, they should not be relied on to achieve regulatory compliance with the ICAO Technical Instructions.

4. Are freight containers containing hazardous materials that are temporarily stored and awaiting loading onto a vessel at a terminal operator's facility considered "in transportation" under the Hazardous Materials Transportation Act (HMTA) and the HMR?

Yes! Under the provisions of 49 U.S.C. 1802(6), transportation means "any movement of property by any mode, and any loading, unloading, or storage incident thereto." Therefore, a freight container temporarily stored at a terminal operator's facility, awaiting a vessel for loading, is considered "in transportation" and would be subject to the HMTA and the HMR.

5. Is a terminal operator who accepts and offers a freight container or package containing hazardous material that has a conspicuous and apparent violation of the HMR in compliance with §171.2?

No! In accordance with §171.2, no person (including a terminal operator) may offer or accept a hazardous material for transportation in commerce unless that material is properly classed, described, packaged, marked and labeled, and in condition for shipment. In addition, if the terminal operator also functions as a carrier, the operation may be in violation of §171.2 and §176.3.

6. If an apparent shipment discrepancy is discovered after acceptance, is a terminal operator subject to civil penalty for violation of §171.2 merely for storing the freight container on the terminal operator's premises after the discrepancy is discovered?

No! However, once the operator becomes aware of the discrepancy, the operator must ensure that the discrepancy is corrected before the hazardous material is moved again.

7. The Hazardous Materials Regulations are based on the Recommendations of the United Nations Committee of Experts on the Transport of Dangerous Goods and are consistent with international regulations issued by the ICAO for air, and IMO for water. Does this mean that a shipment prepared for export in compliance with the Hazardous Materials Regulations (HMR) will be in compliance with the ICAO and IMO?

No! The HMR are not consistent in all aspects with the UN Recommendations, the ICAO Technical Instructions or the IMDG Code, and compliance with the HMR will not guarantee acceptance by regulatory bodies outside of the United States.

8. In §173.150(f)(2) it states, "The requirements of this subchapter do not apply...." To what does the term "subchapter" refer?

The subchapter is Subchapter C. It contains the Hazardous Materials Regulations.

9. Under the Hazardous Materials Transportation Act (HMTA) as amended by the Hazardous Materials Transportation Uniform Safety Act (HMTUSA), what is the general status of federal pre-emption of state, local government, and Indian tribe requirements?

The HMTA generally pre-empts "...any requirement of a State or political subdivision thereof or Indian Tribe"

(1) When compliance with both the local regulation and HMR "is not possible,"

(2) When the local regulations "creates an obstacle to accomplishment and execution" of the HMTA or HMR, or

(3) When the local regulations concern one or more of fiv "covered subjects" and is not "substantively the same" as HMTA or HMR.

10. What are the five "covered subjects" referred to in question #9?

(1) Designation, description, and classification of hazardous materials;

(2) Packing, repacking, handling, labeling, marking, and placarding of hazardous materials;

(3) Preparation, execution, and use of shipping documents pertaining to hazardous materials and requirements respecting the number, content, and placement of such documents;

(4) Written notification, recording, and reporting of the unintentional release in transportation of hazardous materials; and

(5) Design, manufacture, fabrication, marking, maintenance, reconditioning, repair, or testing of a package or container that is represented, marked, certified, or sold as qualified for use in the transportation of hazardous materials.

General

1. Can wet batteries be left in a self-propelled vehicle or mechanical equipment when transported by highway or rail as cargo?

Yes! They must either be installed, securely fastened in an upright position, and protected against short circuits and leakage, or removed and packaged separately under §173.159.

2. Do the regulations that prohibit co-loading of packages bearing a poison label with foodstuffs also apply to pharmaceutical drugs intended for oral consumption?

Yes! Pharmaceutical drugs or medicines intended for oral consumption may not be transported with a poison unless the poison (requiring a poison or poison inhalation hazard label) is overpacked in accordance with §173.25(c) or loaded in accordance with §177.841(e)(1)(ii).

3. Must all flammable liquid fuel be removed from the engine and tank of a self-propelled vehicle being transported as cargo?

§173.220(b)(1) states that internal combustion engines, self-propelled vehicles, or mechanical equipment containing internal combustion engines containing a flammable liquid fuel tank must be drained and securely closed. A residual amount of fuel up to 500 ml (17 ounces) may remain in the tank, engine components, or fuel lines provided they are securely closed to prevent leakage of fuel during transportation.

4. Can self-propelled vehicles using flammable, liquified, or compressed gas fuel be transported with fuel?

Yes. According to §173.220(b)(2):

(1) For transportation by motor vehicle or rail car, the fuel tanks must be securely closed;

(2) For transportation by vessel, the requirements of §176.78(k) and §176.905 apply; and

(3) For transportation by aircraft, the fuel tank and fuel system must be emptied and drained.

Reserved
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Definitions

1. **Acronyms:**

   BOE = Bureau of Explosives

   BOM = Bureau of Mines

   DOT = U.S. Department of Transportation

   FHWA = Federal Highway Administration

   PHMSA = Pipeline and Hazardous Materials Safety Administration

   HMR = Hazardous Materials Regulations

   HMTA = Hazardous Materials Transportation Act

   HMTUSA = Hazardous Materials Transportation Uniform Safety Act

   PIH = Poison-Inhalation Hazard

2. **What is a highway route-controlled quantity of radioactive material?**

   A very large quantity (as define in §173.403) of radioactive material for which specifi routing controls apply for transportation by highway.

3. **What does "n.o.s." mean?**

   "Not otherwise specified (§171.8), which means the chemical is not listed by name in the Hazardous Materials Table, §172.101.

4. **The registration requirements of Part 107 Subpart G "...apply to any person who offers for transportation, or transports in foreign, interstate or intrastate commerce-" hazardous materials specified Who is an "offeror"?**

   HM-223A, published July 28, 2005, define "person who offers or offeror" to mean any person who performs or is responsible for performing any pre-transportation function required by the HMR or who tenders or makes the hazardous material available to a carrier for transportation in commerce. A carrier is not an offeror when it performs a function as a condition of accepting a hazardous material for transportation in commerce or when it transfers a hazardous material to another carrier for continued transportation without performing a pre-transportation function.

5. **Defin "commerce" as used in the Hazardous Materials Regulations?**

   49 CFR 171.8 Definition and abbreviations define **commerce** as trade or transportation in the jurisdiction of the United States within a single state; between a place in a state and a place outside of the state; or that affects trade or transportation between a place in a state and place outside of the state.

6. **What is included within the terms "transport" and "transportation"?**

   Transport and transportation are define in 49 CFR 171.8, means the movement of property and loading, unloading, or storage incidental to that movement.

7. What does the term "lab pack" mean?

Although **lab pack** is not define in §171.8, the term is usually used to indicate the packaging of two or more chemically compatible materials in the same outside packaging. For example, §173.12(b) under the heading "Lab packs," uses the term in conjunction with permitting the use of a generic description when two or more chemically compatible waste materials in the same hazard class are packaged in the same outside packaging.

8. What is included in the term "Incident to Transportation"?

The term includes hazardous materials being loaded, unloaded or stored during transportation (e.g., at a trucking terminal or in a railroad switching yard.)

9. There are two definition of the term "attends or attending", please give both definitions and when each applies.

The firs is in §397.5 of the FMCSR and is applicable to vehicles transporting Divisions 1.1, 1.2 and 1.3 (explosive) materials:

"A vehicle is attended when the person in charge of the vehicle is on the vehicle, awake, and not in a sleeper berth, or is within 100 feet of the vehicle and has it within his/her unobstructed fiel of view."

The second is in §177.834 and is applicable to the loading and unloading of cargo tanks transporting hazardous materials:

"A person 'attends' the loading and unloading of a cargo tank if, throughout the process, he[she] is awake, has an unobstructed view of the cargo tank and delivery hose, and is within 7.62 meters (25 feet) of the cargo tank."

10. What constitutes 'interstate commerce?'

Interstate commerce is a movement of persons or property from a place within a state to a point outside of that state.

Note: Remember that a movement within a state that is a continuation of an interstate movement is 'interstate commerce'. For example, a movement via motor carrier from Chicago destined for Jefferson City, MO, is transferred to a second motor carrier in St. Louis for fina delivery to Jefferson City. Although the second carrier's movement is entirely within the State of Missouri it is a continuation of an interstate movement and thus is interstate commerce.

Driving and Parking Rules (Part 397)

1. Who is subject to Part 397?

Part 397 applies to interstate motor carriers that transport hazardous materials in types and quantities requiring marking or placarding under §177.823. Wholly interstate operations of an interstate motor carrier, when hauling hazardous materials subject to §177.823, are subject to this part. Clearly the intrastate operations of an interstate motor carrier are subject to Part 397 when §177.823 is applicable.

2. Is the interstate transportation of anhydrous ammonia in nurse tanks, subject to Part 397?

The requirements of Part 397 do not apply to the direct application of ammonia to field from nurse tanks. However, Part 397 does apply to the transportation of nurse tanks on public highways, when performed by interstate motor carriers.

3. What define a "public highway" or "shoulder" of a public highway for purpose of determining violations under §397.5(c)?

The applicable engineering/highway design plans.

4. Must a driver of a motor vehicle transporting hazardous materials, other than Divisions 1.1, 1.2, or 1.3 explosives, always maintain an unobstructed view and be within 100 feet of that vehicle?

No. If the vehicle is not located on a public street or highway or on the shoulder of a public highway, then the vehicle need not be within 100 feet of the driver's unobstructed view unless it contains Division 1.1, 1.2, or 1.3 materials.

5. May a motor carrier consider fuel stop operators as "qualifie representative(s)" for purposes of attendance and surveillance requirements of §397.5?

Yes. However, the fuel stop operator must be able to perform the required functions.

6. Who determines what is a "safe haven"?

The selection of safe havens is a decision of the "competent government authorities" having jurisdiction over the area. The definitio found in §397.5(d)(3) is purposely void of any specifi guidelines or criteria. A truck stop may be considered a safe haven if it is so designated by local or State government authorities.

7. When is a vehicle considered "parked"?

For the purposes of Part 397, "parked" means the vehicle is stopped for a purpose unrelated to the driving function (e.g., fueling, eating, loading, unloading).

8. What constitutes "knowledge and consent of the person in charge," as used in §397.7(a)(2)?

In order to satisfy the requirement for "knowledge and consent," actual notice of "the nature of the hazardous materials the vehicle contains" must be given to the person in charge, and that person must affirmatively agree to allow the vehicle to be parked on the property under his/her control.

9. Is the motor carrier or driver relieved from the requirements of §397.7(a)(3) if the person in charge of the private property is notifie of the explosive hazardous materials contained in the vehicle?

No. A vehicle transporting Division 1.1, 1.2, or 1.3 explosives must meet the 300-foot separation requirement, regardless of any notificatio made to any person.

10. What is meant by the term "brief periods when necessities of operation require..." in §397.7(a)(3)?

Brief periods of time depend upon the "necessities of operation" in question. Parking a vehicle containing Division 1.1, 1.2, or 1.3 materials closer than 300 feet to buildings, dwellings, etc. for periods up to 1 hour for a driver to eat would not be permitted under provision of §397.7(a)(3). Parking at fueling facilities to obtain fuel,

oil, etc., or at a carrier's terminal would be considered necessities of operation.

11. May a safe haven be designated within 300 feet of an area where buildings and other structures are likely to be occupied by large numbers of people?

The selection and designation of safe havens are a decision of the "competent government authorities" having jurisdiction over the area.

12. If a motor vehicle is transporting Division 1.1, 1.2, or 1.3 explosives and is parked in a safe haven, must it be in compliance with the parking requirements in §397.7?

Yes. Safe havens, as outlined in §397.5, relate to attendance and surveillance requirements. The parking restrictions of §397.7 still apply.

13. May a driver transporting Division 1.1, 1.2, or 1.3 materials park within 100 feet of an eating establishment in order to meet the attendance and surveillance requirements?

No, because it will result in violation of §397.7(a)(3).

14. May a motor vehicle that contains hazardous materials use expressways or major thoroughfares to make deliveries within a populated area?

Yes, unless otherwise specificall prohibited by State or local authorities. In many instances a more circuitous route may present greater hazards due to increased exposure. However, in those situations where a vehicle is passing through a populated or congested area, use of a beltway or other bypass would be considered the appropriate route, regardless of the additional economic burden.

15. May a driver of a CMV transporting hazardous materials, listed in §397.13, smoke while at the controls or in the sleeper berth of the vehicle?

No. All persons are prohibited from smoking or carrying lighted smoking materials at any time while "on or within 25 feet" of such a vehicle. The word "on" includes any time while in the cab, sleeper berth, etc..

Elevated Temperature Materials

1. What are the compliance dates for manufacturing bulk packagings authorized under §173.247(c) for transporting elevated temperature materials (e.g., asphalt and bitumen)?

The key dates for bulk packagings for elevated temperature materials issued under the fina rule under Docket HM-198A (56 FR 67542, December 31, 1991) are:

- **October 1, 1991** — Compliance with the regulations is authorized.
- **October 1, 1993** — Packagings in service before this date may be used up to 20 years from their date of manufacture (DOM) if they conform to the closure requirements in §173.247(b).

> **Note:** Packagings in service before this date may be used indefinitel if they fully conform to the requirements of §173.247(b). Packagings manufactured after this date must be in full conformance with §173.247(b).

- **March 30, 1995** — All packagings must conform to the closure requirements in §173.247(b).

> **Note:** Packagings used for transporting asphalt or bitumen must conform to the package marking and accident damage protection requirements of §173.247(b)(5) and (b)(6), respectively.

2. How does the term "when offered" apply to elevated temperature materials that have been allowed to cool?

A material loaded at a temperature at or above 212°F but allowed to cool to a temperature below 212°F before "being offered" for transportation would not meet the definitio of an elevated temperature material.

3. Is it correct to describe hot wax, when transported in a liquid phase at or above 212°F, on shipping papers as "HOT WAX"?

No! "Wax" is not a proper shipping name listed in the §172.101 Hazardous Materials Table (HMT). A material not specificall listed by name on the HMT meeting the definitio in §171.8 for an elevated temperature material, Class 9, but other hazard class, must be described using a more generic proper shipping name, such as "Elevated temperature material, liquid, n.o.s." If this proper shipping name is used, the word "HOT" is not necessary because the fact that the material is an elevated temperature material is disclosed in the proper shipping name.

Reserved

4. How do you mark a bulk packaging containing an elevated temperature material?

A bulk packaging containing an elevated temperature material must be marked with the appropriate identification number as specified in §172.332. In addition, under §172.325, the word "HOT" must be marked on *two opposite sides*, except molten aluminum or sulfur, which must be marked, respectively, "MOLTEN ALUMINUM" and "MOLTEN SULFUR" on *two opposite sides*. On rail cars, letters must be at least 100 mm (3.9 inches) in height and on other bulk packagings, at least 50 mm (2 inches) in height. This marking may be stenciled on the packaging itself or appear in black lettering on a white square-on-point configuration having the same outside dimensions as a placard. If an identification number is displayed on a white-square-on-point configuration the word "HOT" may be displayed in the upper corner in 50 mm (2.0 inches) letters.

Emergency Response

1. Is a manufacturer (shipper) required to provide an emergency response telephone number for its product distributors use?

§172.604 permits the use of an emergency response telephone number other than the shipper's. A manufacturer may, but is not required to provide its own emergency response telephone number and authorize its distributors to use that number. Arrangements for use of a telephone number of an outside service are between the service, the manufacturer and the manufacturer's distributors.

2. Does the use of a material safety data sheet (MSDS) constitute compliance with §172.602(a) or §172.604(a)?

No! An MSDS may be used to comply with §172.602(a) and 172.604(a) only if the MSDS includes the hazardous material's basic description, technical name, and the emergency response information required in Subpart G of Part 172. See §172.602(b)(3)(ii).

3. Does sending the shipping paper along with a letter or shipping paper statement notifying the carrier that copies of the DOT Emergency Response Guidebook (ERG) must be aboard vehicles transporting the hazardous materials relieve the shipper from any further responsibility for ensuring the information required by §172.602(a) is immediately available?

No! §172.600(c) states that no person to whom the subpart applies may offer for transportation, accept for transportation, transfer, store or otherwise handle during transportation a hazardous material *unless the required emergency response information is available for use at all times*. Therefore, if a person offers hazardous materials to a carrier and the required emergency response is not present, the offeror

would be in violation of these requirements. If the carrier accepts such a shipment for transportation, the carrier is also in violation.

4. **For after-hours contacts, would an answering machine referencing a minimum of three emergency response personnel and giving their personal telephone numbers satisfy the requirements of §172.604(a) for an emergency telephone contact?**

   No! The requirements in §172.604(a) specify that the telephone number must be monitored at all times the hazardous material is in transportation: the person monitoring the number must be either knowledgeable of the characteristics of the hazardous material and have comprehensive emergency response and incident mitigation information for that material OR have immediate access to a person who possesses such knowledge and information. An answering machine does not meet this requirement.

5. **What methods are available for complying with the emergency response information requirements in §172.602?**

   Various methods to comply with the emergency response information requirements are provided in §172.602(b)(3). First, the information may be presented on the shipping paper [§172.602(b)(3)(i)]. Second, the information may be presented in a document other than the shipping paper, such as a page from the ERG or a material safety data sheet, if the document includes the *basic description and technical name of the hazardous material*. See §172.602(b)(3)(iii). The ERG is only one of many sources that may be used to satisfy this requirement.

   Note: Remember, an MSDS must contain all of the information required under §172.602(a), see question #2.

6. **Must the emergency response telephone number required on shipping papers under §172.604 be a company telephone number?**

   No! Any telephone number that is manned in accordance with §172.604 is acceptable. A number of organizations such as CHEMTREC offer a service to meet this requirement but you must make that arrangement with such an organization.

7. **What are the segregation requirements for charcoal briquettes and charcoal starter flui shipped via highway, and must the emergency response information accompany both products?**

   First, it is assumed that both commodities to be transported have been re-named "Consumer Commodity" and reclassifie as "ORM-D" materials for which there are no segregation requirements.

   Second, §172.600(d) states "The requirements of this part do not apply to hazardous materials which are excepted from the shipping paper requirements of this subchapter." Since §172.200(b) excepts ORM-Ds from the shipping paper requirements except when offered or intended for transportation by air, emergency response information is not required to accompany this shipment.

Enforcement

1. **Who will enforce the hazardous materials training regulations?**

   Each modal administration of the Department of Transportation will be responsible for enforcement pertaining to carriers. Compliance and non-compliance with the training rule will be determined during safety and compliance reviews of shippers and carriers.

Intrastate and Interstate Commerce

1. **If a motor carrier transports hazardous materials exclusively in intrastate commerce and does not transport hazardous substances, hazardous wastes or flammabl cryogenics, is the carrier required to maintain, test, repair, etc. his DOT specificatio cargo tanks in conformance with the current edition of 49 CFR even if the state has not yet adopted the most current 49 CFR?**

   Yes, when a motor carrier uses a cargo tank *represented* by the tank specificatio plate as meeting DOT specification the cargo tank must conform in all respects to the applicable specification in Part 178 under which it was manufactured and the requalificatio requirements in Part 180. As provided by 49 CFR 171.2(g), "no person may represent ... or offer a packaging ... as meeting the requirements of this subchapter governing its use in the transportation of a hazardous material in commerce, unless the packaging ... is manufactured, fabricated, marked, maintained, ... repaired, and retested in accordance ... with this subchapter." Also see 49 CFR 180.3. Therefore, the Parts 178 and 180 requirements would apply to a DOT specificatio cargo tank motor vehicle used to transport hazardous materials exclusively in intrastate commerce as well as interstate commerce.

2. **Would an intrastate motor carrier which does not transport any hazardous material but uses cargo tanks marked with a DOT specificatio number be required to maintain the tanks in compliance with the current 49 CFR requirements?**

   Yes, any cargo tank *represented* by the tank specificatio plate as a DOT specification packaging must conform to all applicable requirements. See §§171.2(g) and 180.3(a). However, when a DOT specificatio cargo tank is used to transport non-hazardous materials or hazardous materials not requiring the use of a specification cargo tank, the tank's specificatio plate may be removed, obliterated or

securely covered, as provided by §180.405(j). If the plate is covered, the covering must be capable of remaining in place during transit. Removing, obliterating or securely covering the specificatio plate eliminates representation of the tank as a DOT specificatio packaging. If subsequently returned to hazardous materials service, the cargo tank must conform to all specificatio (Part 178) and all applicable requalificatio (Part 180) requirements.

3. What constitutes 'interstate commerce?'

Interstate commerce is a movement of persons or property from a place within a state to a point outside of that state.

Note: Remember that a movement within a state which is a continuation of an interstate movement is 'interstate commerce'. For example, a movement via motor carrier from Chicago destined for Jefferson City, Missouri is transferred to a second motor carrier in St. Louis for fina deliver to Jefferson City. Although the second carrier's movement is entirely within the State of Missouri it is a continuation of an interstate movement and thus is interstate commerce.

Labeling

1. Can labels or placards be oriented other than square-on-point?

Although recommended when feasible, there is no requirement to orient a label square-on-point on a package. Some small packages are too small to permit square-on-point orientation and many packages may be transported in any of several orientations. In other instances labels may be attached to tags, rendering "square-on-point" meaningless. For placards, the provisions of §172.516(c)(5) mandates a square-on-point orientation.

2. Is a packaging manufacturer who prints a hazard warning label on a packaging responsible for matching the color of the label to the color standards prescribed in Appendix A of 49 CFR Part 172?

Yes! When a packaging manufacturer prints a hazardous materials warning label on a packaging, the manufacturer is subject to the applicable requirements of 49 CFR Part 172 Subpart E, for those functions which he or she performs.

3. Why is there no COMBUSTIBLE label?

§172.150(f)(2) states "The requirements of this subchapter do not apply to a material classed as a combustible liquid in a non-bulk packaging unless the liquid is a hazardous substances or a hazardous waste." Thus no label is necessary.

4. Must the symbol, text, number and border on the FLAMMABLE label be printed in black?

No! White may be used on labels having a green, red or blue background color. [§172.407(d)(2)(i)]

5. The UN Recommendations, IMDG and ICAO label illustrations do not show hazard wording, whereas label illustrations in 49 CFR show the wording. Does that mean that a company making both domestic and international shipments would need two sets of labels?

No! The UN Recommendations, IMDG and ICAO have provisions for use of the hazard wording on the labels, and §172.407(f) states that "a label conforming to specifications in the UN Recommendations may be used in place of the corresponding label which conforms to the requirements of this subpart."

6. For gases having both primary and subsidiary hazards can they be labeled using the CGA Pamphlet C-7 cylinder shoulder style labeling?

Yes! In CGA Pamphlet C-7, Figure 2 under "BASIC MARKINGS" illustrates the display multiple labels with the label representing the primary hazard on the left and for the subsidiary hazard on the right.

7. The customer is transporting cylinders of "fluorine, compressed," which the table shows as requiring both a poison gas and a oxidizer label. Can a compressed gas CGA style label be used?

Yes! §172.400a (a) allows the use of the CGA style label for Divisions 2.1, 2.2, and 2.3 gases.

8. How many labels are required on each package?

One for each hazard, primary or subsidiary. Affixed to a surface, other than the bottom, and located on the same surface as the proper shipping name. [§172.406(a)(i, ii)].

9. Where is a subsidiary label to be located on a package?

Primary and subsidiary labels must be displayed next to each other. [§172.406(c)]

Loading/Unloading

1. What are the attendance requirements during the loading and unloading of cargo tanks and tank cars transporting hazardous materials?

Specific attendance requirements differ for loading and unloading railroad tank cars and highway cargo tanks. These requirements and some general guidelines for compliance are summarized as follows:

Railroad tank cars: The tank car and all components directly involved in unloading must be under continuous observation, either human or non-human (such as mechanical or electronic). See §174.67.

Highway cargo tanks: The person observing the loading and unloading must be awake, have an unobstructed view of the cargo tank, and be within 7.62 meters (25 feet) of the cargo tank. The use of television monitors, when operable and continuously manned, would satisfy the attendance requirements when the operation is conducted by remote control provide the operator can stop the operation from the monitoring location. See §177.834(i)(3).

2. What is a shipper's responsibility for package securement when transporting hazardous materials by motor vehicle?

If the shipper loads hazardous materials onto a motor vehicle, then the shipper is responsible for compliance with any applicable loading provisions (See §173.30). Section 177.834(a) requires that packages of hazardous materials must be secured against movement within a motor vehicle to prevent shifting or falling, under conditions normally incident to transportation. These conditions include vehicle starting, stopping, accelerating, cornering, and accident avoidance, as well as varied road conditions.

3. **Can an empty vertical pallet be used to comply with the non-adjacent loading requirement under §177.848, for example, to separate a pallet containing oxidizers from a pallet containing corrosive liquids?**

   An empty vertical pallet may be used to satisfy non-adjacent loading considerations if the empty vertical pallet prevents the commingling of package contents in the event of leakage, under conditions normally incident to transportation.

4. **Can incompatible hazardous materials be loaded in separate compartments of a multi-compartmented cargo tank (with double bulkheads)?**

   No! §173.33(a)(2) states, "Two or more materials may not be loaded or accepted for transportation in the same cargo tank motor vehicle if, as a result of any mixture of the materials, an unsafe condition would occur, such as an explosion, fire, excessive increase in pressure or heat, or the release of toxic vapors."

   Note: The term cargo tank motor vehicle includes multi-compartmented cargo tanks.

Marine Pollutants

1. **When transporting by rail, highway or air, are non-bulk packages required to comply with the Marine Pollutant requirements?**

   Except when all or part of the transportation is by vessel, the requirements specific to marine pollutants do not apply to non-bulk packagings transported by motor vehicle, rail car, or aircraft.

2. **Is a bulk package required to be marked with the MARINE POLLUTANT marking when it contains a Class 9 material meeting the definition for Marine Pollutant when transported by rail, highway or air?**

   A bulk package that is not placarded with a Class 9 placard must display the MARINE POLLUTANT marking described in §172.322. A bulk package that is placarded with Class 9 placard, is not required to have the MARINE POLLUTANT marking. See §172.504(f)(9). Additionally, all bulk packages must be marked with the identification number of the material contained within the package in accordance with §172.332.

Marking

1. **What are the marking and placarding requirements for stationary storage containers for liquefied petroleum gas transported under provisions of §173.315(j)?**

   These storage containers must be marked when in transportation in accordance with the provisions of §172.331, for bulk packagings other than portable tanks, cargo tanks, tank cars and multi-unit tank car tanks. For example, the identification number for liquefied petroleum gas, "1075," must be marked in the manner prescribed in §172.302, that is, on two opposing sides of containers having a capacity of 1,000 gallons or less and on each side and each end for containers with a capacity greater that 1,000 gallons. The transport vehicle must be placarded on each side and each end with FLAMMABLE GAS placards. See §172.504.

2. Can No. 2 fuel oil be transported in a cargo tank placarded FLAMMABLE and marked with identification number "1203"?

Yes! If the cargo tank is also used for the transportation of gasoline that has the identification number "1203". Under §172.504 (f)(2) a FLAMMABLE placard may be used on a cargo tank during transportation by highway containing materials classed as flammable and combustible liquid. Under §172.336(c)(5), a cargo tank used to transport different liquid petroleum distillate fuels, including No. 2 fuel oil, may be marked with the identification number for the distillate fuel having the lowest flash point. If gasoline is the distillate fuel with the lowest flash point,

"1203" may be used as the identificatio number. If the cargo tank is used only for No. 2 fuel oil, the identificatio number "1993" must be used.

3. When the identificatio number is displayed on a COMBUSTIBLE placard, when is it required that the bottom half be white?

§172.332(c)(4) states, "...the entire background below the white background for the identificatio number **must** be white during transportation by RAIL and **may** be white during transportation by HIGHWAY."

The "must" is mandatory and the "may" is permissive. Thus if the identificatio number is displayed on the COMBUSTIBLE placard for a shipment by rail there is no alternative, the lower portion must be white. However, if the shipment is by highway the bottom portion may be white, if so desired, but it *is not required*.

4. What retester's markings are required to be stamped on a cylinder that has been requalified

Each cylinder passing retest must be marked with the cylinder retester's identificatio number set in a square pattern, between the month and year of the retest. To illustrate, a cylinder retested in May 2006 by a retester whose identificatio number is A123 would be stamped:

A 1

5 06

2 3

When an external visual inspection is performed in lieu of the periodic retest, each cylinder passing the visual inspection must be marked with the month and year followed by the letter "E," which indicates the cylinder was requalifie by external inspection.

5. Must UN/NA identificatio numbers be displayed on the ends of a multi-compartmented portable tank, a cargo tank or a tank car containing hazardous materials requiring different identificatio numbers?

No! The ID numbers are to be displayed on two sides in the same sequence as the compartments containing the materials they identify. [§172.336(c)(1)]

6. For bulk shipments of materials poisonous by inhalation, where is the marking "Inhalation Hazard" to be placed?

On two opposite sides in association with the required placards.

7. Can identificatio numbers be displayed on all placards?

No! In addition to subsidiary placards, identificatio numbers may not be displayed on RADIOACTIVE, Division 1.1, 1.2, 1.3, 1.4, 1.5. 1.6, or DANGEROUS placards. [§172.334(a)]

8. Where in the regulations does it state that identificatio numbers are to be displayed only on vehicles transporting hazardous materials in bulk?

There is no section in the regulations specificall stating that the identificatio number markings required by §172.302(a) shall be displayed only on bulk shipments of hazardous materials. BUT, in *§172.326* for portable tanks, *§172.328* for cargo tanks, *§172.330* for tank cars and multi-unit tank car tanks, and *§172.331* for bulk packagings other than portable tanks, cargo tanks, tank cars, and multi-unit tank car tanks the display of identificatio numbers on transport vehicles is mandated.

In the case of portable tanks, §172.326(c) states that if the markings on the portable tank are not visible, the identificatio number shall be displayed on each end and each side of the transport vehicle or freight container used to transport the portable tank.

9. We transport diesel fuel in 500 gallon portable tanks to construction sites. What markings and placards are required on the tanks and on the "flatbed truck transporting the tanks?

§172.326 requires a portable tank to marked with the "Proper Shipping Name" on two opposing sides, the "name of the owner or lessee," and the "Identificatio Number" on two opposing sides [§172.302(a)(2)] on an "orange" panel or on the required placard. In addition, the tank shall be placarded on two sides with the Class 3 placard.

In this instance the placard and identificatio number on the portable tank can not be seen as loaded, therefore §172.326(c)(1) requires the identificatio number to be displayed on each side and each end of the transport vehicle.

10. Is a bulk package required to be marked with the MARINE POLLUTANT marking when it contains a Class 9 material meeting the definitio for Marine Pollutant when transported by rail, highway or air?

A bulk package that is not placarded with a Class 9 placard must display the MARINE POLLUTANT marking described in §172.322. A bulk package that is placarded with a Class 9 placard, is not required to have the MARINE POLLUTANT marking §172.504(f)(9). Additionally, all bulk packages must be marked with the identificatio number of the material contained within the package in accordance with §172.332.

11. There is a great deal of confusion pertaining to the classification marking and placarding of asphalt, particularly when hot. Please clarify.

It is necessary to know two characteristics of the asphalt to be transported. 1) What is the flashpoin of the material? And, 2) What is the temperature of the material?

In the following examples the asphalt will be transported in a bulk package.

1. Asphalt at or above its flas point would be transported as "*NA 1999, Asphalt, 3, PG III*," placarded FLAMMABLE, marked with the identificatio number, and marked "HOT" on two sides.

2. Asphalt not above 212°F and having a flas point above 140°F would be transported as "*UN 1999, Asphalt, cut back or Tars liquid, 3, PG II or III*," placarded FLAMMABLE, marked with the ID number, and marked "HOT" on two sides.

3. Asphalt at or above 212°F and below its flas point would be transported as "*UN 3257, Elevated temperature liquid, n.o.s., 9, III*." No placard is required, but it must be marked with the identificatio number and the word "HOT" on two sides.

4. Asphalt at or above its flas point and a flas point above 100°F would be transported as "*UN 3256, Elevated temperature liquid, flammable n.o.s., 3, III*," placarded FLAMMABLE, marked with the identificatio number, and marked "HOT" on two sides.

12. May a company located within the U.S. who also manufactures packagings in a plant in Canada mark the packages manufactured in Canada "USA" since the company taking responsibility for compliance with UN and 49CFR requirements is actually located within the U.S.?

No, the letters "USA" may only be applied to a packaging which is manufactured in the United States (see 49 CFR 178.503(a)(7). However, a packaging may be assembled outside of the

U.S. if the certificatio marks are not applied until it reaches the company within the U.S. that will certify the packaging and mark it "USA."

13. **Customer has a number of empty tote tanks (450 gal. capacity), not purged or cleaned, which originally contained different hazardous materials. These empty totes are being shipped in a van trailer. Must the appropriate placards and identificatio numbers for the different hazardous materials be displayed on the motor vehicle?**

    Yes! Empty bulk packagings must be transported in the same manner as when they contained a larger quantity of hazardous materials [see §173.29(a)].

Package Testing and Certification

1. **Are packagings that are marked as conforming to the United Nations Committee of Experts' Recommendations on the Transport of Dangerous Goods (UN Recommendations) required to be tested by a DOT-approved packaging certificatio agency (third-party packaging certificatio agency)?**

   No! There is no requirement that UN packagings be certifie by a third-party packaging certificatio agency. UN packagings may be self-certified provided all tests and construction requirements are met.

2. **When testing is performed by a third-party packaging certificatio agency, whose name or symbol appears after the "USA" marking — the third-party packaging certificatio agency, the packaging manufacturer, or the shipper?**

   Each third-party packaging certificatio agency has been assigned a symbol consisting of a "+" sign and a two letter code. The third-party symbols are distinct from marking that may be used by self-certifying entities. When a packaging has been tested by a third-party packaging certificatio agency, the third party's symbol, with a four digit number assigned to the third-party packaging certificatio agency that identifie the packaging, should be on the packaging after the "USA" marking.

3. **Can the packaging manufacturer or shipper choose not to put the third-party symbol on packagings that have been certifie by a third-party packaging certificatio agency?**

   Yes. The packaging manufacturer or shipper may place a different mark on packagings in accordance with §178.503. However, in doing so it would no longer be evident from the mark that the packaging has been third-party certified

4. **May a third-party packaging certificatio agency certify a packaging without knowing exactly what hazardous material might be shipped in the packaging?**

   Yes. If the third-party packaging certificatio agency does not know what materials are to be shipped in the packaging, it may certify the packaging to a specifi packaging group level and for a specifie maximum gross weight or specifi gravity. The packaging could then be used for other hazardous materials so long as the packaging test requirements are equal to or less severe than the levels to which the packaging was tested. Additionally, the package must be assembled and closed in the same manner as the tested package.

5. **If a shipper overpacks a package that has passed UN tests, does the over-pack have to be tested?**

   No. The overpack does not have to be tested. However, the overpack must be marked in accordance with §173.25 to indicate that inside packagings meet applicable specifications

6. When applying the required markings to UN packagings, can the markings be divided into two lines? Three lines? If so, should a slash appear at the end of one line before dropping down to the next?

The UN Recommendations state that the required markings may appear in a single line or multiple lines, provided the correct sequence is respected. Slash marks should be used to separate items on a line. To avoid confusion, we recommend that you mark packages in the same manner as the examples given in the UN Recommendations. While the UN Recommendations do not prohibit the placement of a slash mark at the end of a line, the examples in the UN Recommendations do not show one there.

7. When the inner packagings of a combination packaging are pressure tested for shipment by air, must the inner packagings be marked to indicate they have been tested? Should the outer packaging be marked with the pressure to which the inner packagings have been tested instead of the letter "S" (use to indicated inner packagings)?

The inner packagings are not required to be marked to indicate they have been pressure tested. The marking "S" should appear on the outer packaging to indicate that the packaging is intended to contain inner packagings. There is no requirement to mark either the inner packagings or outer packaging with the test pressure.

8. When marking the gross mass on UN packagings (required in kilograms), is the gross mass rounded down to the nearest tenth of a kilogram, or to a certain number of decimal places?

The gross mass should be rounded down to the nearest kilogram. The gross mass may be rounded down to the nearest tenth of a kilogram where the gross mass of a package is less than one kilogram, or where a package has been tested to within a tenth of a kilogram.

9. Who is responsible for determining the hazard class and packing group of a hazardous material, the shipper or the third-party packaging certificatio agency?

The person offering the hazardous material for transportation (i.e. the "shipper") is responsible for classifying the hazardous material and determining its packing group.

10. Is IATA a specificatio that must be complied with for UN certification Please clarify.

The IATA Dangerous Goods Regulations are not recognized by the U.S. DOT.

11. A packaging that has been certifie for Packing Group I hazardous liquids may be used to ship Packing Group II and III hazardous liquids with higher specifi gravities (§173.24a). In the case of combination packagings, can the gross mass of the Packing Group I marked package be exceeded when fille with a higher specifi gravity of Packing Group II or III materials?

No. These provisions are for single and composite packagings only.

12. Paragraph 178.503(a)(4)(ii) requires for packagings intended to contain solids that the authorized gross mass in kilograms be designated. Should this authorized gross mass appear as a whole number or carried out to one-tenth of a kilogram?

The maximum gross mass should generally appear as a whole number, except in cases where it must be carried out to a decimal (e.g. for a mass less than one kilogram). If the gross mass appears as a whole number, it must be rounded down.

13. If a 4 x 1 gallon metal paint can combination package is UN certifie for air shipment, would the placement of a 1 quart glass bottle in this 1 gallon can be covered under the original certification The 1 quart bottle will not meet the pressure test requirement and is being placed in the can as permitted by §173.27(c)(3)(i).

The addition of a 1 quart bottle inside the metal can would be covered under the original certification provided the results of the tests would not be adversely affected. The glass bottle is considered incidental to the tested packaging.

14. If a single or composite plastic packaging has been UN certifie and the manufacturer decides to change resin vendors selecting a resin with the same properties (i.e., melt flo , density, etc.) as that used in the original certification would this situation constitute a design change and require recertification

Unless the manufacturer can ascertain that the resins are virtually identical, recertificatio is required.

15. Paragraph 178.602(c) authorizes the use of bags of lead shot to be used to achieve the requisite solids mass, as long as they are placed so the test results are not affected. Would a water/lead shot solution be authorized when trying to simulate a liquid product with a high specifi gravity provided this same requirement is met?

Yes.

16. When preparing samples intended to hold liquids for drop testing, water (with a specifi gravity of 1.0) is authorized to simulate materials with specifi gravities as much as 20% greater (up to 1.2). For -18°C drops, solutions containing alcohols used to meet the requirement of remaining liquid at this temperature, typically have specifi gravities slightly below 1.0 (5% less). Is this acceptable?

The solution used for testing must have a specifi gravity of at least 1.0, or simulate the specifi gravity of 1.0, as in the previous question.

17. The dynamic compression test authorized for periodic retesting states that tests must be conducted on empty, unsealed packagings. For an open head container, does this mean without its cover?

No.

18. On an open-head container, if the design certificatio tests are conducted on an open head cover that incorporates a closure, would this certificatio cover the identical package using a solid cover?

No.

19. Must single tested and approved packages (steel drums or cans) that must be overpacked for passenger aircraft be retested as a combination packaging?

If the regulations specify that a UN standard combination packaging is required, the combination packaging must be tested.

20. The drop test in §178.603 specifie that a certain number of samples must be used, depending on the type of packaging. For example, fiv samples are specifie for boxes. May I use just one sample for all fiv tests?

Generally, no. A reduced number of samples is authorized only for periodic retesting of stainless steel, nickel, or monel packagings, or if specificall approved by the Associate Administrator for Hazardous Materials Safety.

21. If a shipper is certifying combination packagings (i.e., a corrugated fiber-boar box with inner glass bottles), and the shipper has a number of different corrugated fiberboar box makers who supply the same specificatio boxes, must the shipper have each box maker's boxes certified

Yes, unless the shipper can ascertain that all boxes received from the different box makers are virtually identical (i.e., dimensions, bursting strength, basis weight, flute caliper, closure system, etc.). The shipper then assumes liability for the integrity of the packagings that are certifie in this way.

22. If a corrugated fiberboar box maker receives fiberboar stock from a number of different suppliers, must the box maker have each box, made from each supplier's stock, certified

Yes, unless it can be ascertained that the fiberboar stock is virtually identical and meets criteria that have been established for a board used in a box that successfully passed the required performance standards for a particular specification For example, if the different suppliers are supplying fiberboar that is virtually identical (same components, manner of construction, burst strength, Cobb rating, etc.) it would not be necessary to retest.

Packaging

1. What are the bulk packaging requirements for solid polychlorinated biphenyls? Can solid PCB's be shipped in a hopper or dump type vehicle that is covered with a tarpaulin or steel cover?

The bulk packaging section for liquid PCB's is §173.241; the bulk packaging section for solid PCB's is §173.240. §173.240 permits solid PCB's to be shipped in non-DOT

specificatio sift-proof closed vehicles. Therefore, sift-proof dump or hopper-type vehicles tightly covered with tarpaulins or steel covers may be used to transport solid PCB's.

2. Must a cargo tank conform to the specificatio that is stamped on its certifi cation plate when transporting a commodity not regulated for transportation under the HMR?

Yes! Regardless of the commodity transported, if for any reason a cargo tank does not meet the applicable specification under which it was constructed, the specifica tion markings must be removed or rendered illegible.

3. If a cargo tank no longer conforms to its marked specification may the specificatio marking (e.g., MC-307) stamped on the certificatio be covered with duct tape or a hinged plate cover to render it illegible.

Yes! Use of duct tape or other opaque material, including a hinged plate cover, is acceptable for rendering the plate illegible if the specificatio marking is completely, durably and securely covered. If the cargo tank can be brought into full conformance with the applicable DOT specificatio at a later date, this method leaves the certifi cation plate intact. If a cargo tank can not be brought into full conformance with the applicable DOT specification the certificatio should be removed or rendered permanently illegible.

4. May aerosol products that are consumer commodities be shipped in open fiberboar trays if the aerosol containers are shrink-wrapped to the trays?

Aerosols containing no hazardous materials other than a Division 2.2 gas, are not subject to the requirements of this subchapter. The pressure limit may be increased to 2000 kPa (290 psig) at 55ºC (131ºF) provided the aerosols are transported in outer packages that conform to the packaging requirements of Subpart B

5. In selecting a "salvage drum" to be used for a leaking package, what must be considered?

In addition to the four UN packagings specifie in §173.3(c)(1) [1A2, 1B2, 1N2, 1H2] it is necessary to make certain the "salvage drum" has been tested and marked for Packing Group III or higher performance standards for liquids or solids and a leakproofness test of 20 kPa (3 psig) and that the "salvage drum" is compatible with the lading.

6. Who is responsible for packaging/lading compatibility?

The "offeror". §173.24(e)(1) states, "Even though certain packagings are specifie in this part, it is, nevertheless, the responsibility of the *person offering* a hazardous material for transportation to ensure that such packagings are compatible with their lading."

Note: It may be that a given package manufacturer will do the compatibility testing but some manufacturers have indicated they will not accept that liability.

7. We haul "Ferrosilicon" (with 30% or more but less than 90% silicon) in dump trucks but we are being told we can no longer haul it in dump trucks. Is this correct?

In part, Yes, but the bulk packaging reference in column 8C of the §172.101 Table is to §173.240. In paragraph (b) it states "...sift-proof closed vehicles" are authorized. An interpretation to the same question but referring to solid PCBs states that "...dump trucks and hopper-type vehicles tightly covered with tarpaulins or steel covers may be used to transport solid PCBs."

8. If a motor carrier transports hazardous materials exclusively in intrastate commerce and does not transport hazardous substances, hazardous wastes or flammabl cryogenics, is the carrier required to maintain, test, repair, etc. his DOT specificatio cargo tanks in conformance with the current edition of 49 CFR even if the state has not yet adopted the most current 49 CFR?

Yes, when a motor carrier uses a cargo tank represented by the tank specificatio plate as meeting DOT specification the cargo tank must conform in all respects to the applicable specificatio in Part 178 under which it was manufactured and the requalificatio requirements in Part 180. As provided by 49 CFR 171.2(g), "no person may represent ... or offer a packaging ... as meeting the requirements of this subchapter governing its use in the transportation of a hazardous material in commerce, unless the packaging ... is manufactured, fabricated, marked, maintained, ... repaired, and retested in accordance ... with this subchapter." Also see 180.3. Therefore, the Parts 178 and 180 requirements would apply to a DOT specificatio cargo tank motor vehicle use to transport hazardous materials exclusively in intrastate commerce as well as interstate commerce.

9. Would an intrastate motor carrier that does not transport any hazardous material but uses cargo tanks marked with a DOT specificatio number be required to maintain the tanks in compliance with the current 49 CFR requirements?

Yes, any cargo tank *represented* by the tank specificatio plate as a DOT specification packaging must conform to all applicable requirements. See §§171.2(c) and 180(a). However, when a DOT specificatio cargo tank is used to transport non-hazardous materials or hazardous materials not requiring the use of a specificatio cargo tank, the tank's specificatio plate may be removed, obliterated or securely covered, as provided by §180.405(j). If the plate is covered, the covering must be capable of remaining in place during transit. Removing, obliterating or securely covering the specificatio plate eliminates representation of the tank as a DOT specificatio packaging. If subsequently returned to hazardous materials service, the cargo tank must conform to all specificatio (Part 178) and all applicable requalification (Part 180) requirements.

10. Is the IATA a specificatio that must be complied with for UN certification Please clarify.

The IATA Dangerous Goods Regulations are not recognized by the U.S. DOT.

11. A packaging that has been certifie for Packing Group I hazardous liquids may be used to ship Packing Group II and III hazardous liquids with higher specifi gravities (§173.24a). In the case of combination packagings, can the gross mass of the Packing Group I marked package be exceeded when fille with a higher specifi gravity of Packing Group II or III materials?

No. These provisions are for single and composite packagings only.

12. Paragraph 178.503(a)(4)(ii) requires for packagings intended to contain solids that the authorized gross mass in kilograms be designated. Should this authorized gross mass appear as a whole number or carried out to one-tenth of a kilogram?

The maximum gross mass should generally appear as a whole number, except in cases where it must be carried out to a decimal (e.g., for a mass less than one kilogram). If the gross mass appears as a whole number, it must be rounded down.

13. If a 4 x 1 gallon metal paint can combination package is UN certifie for air shipment, would the placement of a 1 quart glass bottle in this 1 gallon can be covered under the original certification The 1 quart bottle will not meet the pressure test requirement and is being placed in the can as permitted by §173.27(c)(3(i).

The addition of a 1 quart bottle inside the metal can would be covered under the original certification provided the results of the tests would not be adversely affected. The glass bottle is considered incidental to the tested packaging.

14. If a single or composite plastic packaging has been UN certifie and the manufacturer decides to change resin vendors selecting a resin with the same properties (i.e., melt flo , density, etc.) as that used in the original certification would this situation constitute a design change and require recertification

Unless the manufacturer can ascertain that the resins are virtually identical, recertificatio is required.

15. Paragraph 178.602(c) authorizes the use of bags of lead shot to be used to achieve the requisite solid mass, as long as they are placed so the test results are not affected. Would a water/lead shot solution be authorized when trying to simulate a liquid product with a high specifi gravity provided this same requirement is met?

Yes!

16. When preparing samples intended to hold liquids for drop testing, water (with a specifi gravity of 1.0) is authorized to simulate materials with specifi gravities as much as 20% greater (up to 1.2). For -18°C drops, solutions containing alcohols used to meet the requirement of remaining liquid at this temperature, typically have specifi gravities slightly below 1.0 (5% less). Is this acceptable?

The solution used for testing must have a specifi gravity *of at least 1.0*, or simulate the specifi gravity of 1.0, as in the previous question.

17. The dynamic compression test authorized for periodic retesting states that test must be conducted on empty, unsealed packagings. For an open head container, does this mean without its cover?

No.

18. On an open-head container, if the design certificatio tests are conducted on an open head cover that incorporates a closure, would this certificatio cover the identical package utilizing a solid cover?

No.

19. Must single tested and approved packages (steel drums or cans) that must be overpacked for passenger aircraft be retested as a combination packaging?

If the regulations specify that a UN standard combination packaging is required, the combination packaging must be tested.

20. The drop test in §178.603 specifie that a certain number of samples must be used, depending on the type of packaging. For example, fiv samples are specifie for boxes. May I use just one sample for all fiv tests?

Generally, no. A reduced number of samples is authorized only for periodic retesting of stainless steel, nickel, or monel packagings, or if specificall approved by the Associate Administrator for Hazardous Materials Safety.

21. If a shipper is certifying combination packagings (i.e., a corrugated fiber-boar box with inner glass bottles), and the shipper has a number of different corrugated fiberboar box makers who supply the same specificatio boxes, must the shipper have each box maker's boxes certified

Yes, unless the shipper can ascertain that all boxes received from the different box makers are virtually identical (i.e., dimensions, bursting strength, basis weight, flute caliper, closure system, etc.). The shipper then assumes liability for the integrity of the packagings that are certifie in this way.

22. If a corrugated fiberboar box maker receives fiberboar stock from a number of different suppliers, must the box maker have each box, made from each supplier's stock, certified

Yes, unless it can be ascertained that the fiberboar stock is virtually identical and meets criteria that have been established for a board used in a box that successfully passed the required performance standards for a particular specification For example, if the different suppliers are supplying fiberboar that is virtually identical (same components, manner of construction, burst strength, Cobb rating, etc.) it would not be necessary to retest.

23. With reference to testing and certificatio of UN Packaging, is the IATA a specificatio that must be complied with for UN certification Please clarify.

The IATA Dangerous Goods Regulations are not recognized by the U.S. DOT.

24. Does the term "DOT specificatio cargo tanks" include both the MC 300 series cargo tanks and the DOT 400 series cargo tanks?

Yes, the term refers to both MC cargo tanks and DOT cargo tank motor vehicles.

25. Can either a hazardous material or a non-hazardous material be used in performing a hydrostatic test or a leakage test on a cargo tank?

§180.407(g)(1)(viii) allows a hydrostatic test to be performed using water, or other liquid having similar viscosity, at a temperature not exceeding 100°F. Therefore, a hazardous material meeting the stated criteria may be used as the test medium. §180.407(h)(1) provides cargo tanks may be leakage tested with hazardous materials contained in the cargo tank during the test. In selecting the test medium, consideration should be given to the safety of personnel and avoid any contamination that may result in an unsafe condition.

26. What provisions have been established to prevent tank manufacturing and repair by a non-registered establishment?

Normal enforcement procedures by Federal and State enforcement agencies will be used to prevent tank manufacturing and repair by a non-registered establishment. Shippers and carriers have certain responsibilities for ensuring the use of a proper cargo tank.

27. Does a tank repair facility need to demonstrate a quality system in full compliance with the requirements of the National Board Inspection Code?

Yes. Each repair facility must satisfy all the requirements established by the American Society of Mechanical Engineers Code in order to obtain a ASME "U" stamp or the National Board in order to obtain a National Board "R" stamp.

28. A dry shipper is a packaging composed of an outer metal jacket and an inner shell with the void space between jacket and shell fille with insulation and vacuum sealed. The interior of the packaging contains a cylindrical void, which holds the material requiring refrigeration, surrounded by absorbent material. The absorbent material is saturated with nitrogen, refrigerated liquid, with all of the excess liquid nitrogen removed. The closure of the packaging allows venting without any build up of internal pressure. Is a "dry shipper" regulated under the Hazardous Materials Regulations?

Because the liquid nitrogen is completely absorbed into the absorbent material, no free liquid is present in the packaging. The liquid nitrogen does not exhibit the characteristic of a "cryogenic liquid" as define in §173.115(g), or pose a significan risk in transportation. Therefore, the liquid nitrogen is not subject to regulations under the Hazardous Materials Regulations.

Reserved
Pages 63-72

Placarding

1. **What are the placarding requirements for a mixed load of hazardous materials consisting of 5,000 pounds of flammable liquid loaded at one facility and 500 pounds of a corrosive material and 20 pounds of non-flammable gas?**

   Because all commodities are Table 2 hazardous materials and the aggregate gross weight of all the hazardous materials is over 1,001 pounds, the motor vehicle must be placarded for each hazard category of materials loaded on the vehicle. Under §172.504(b), DANGEROUS placards may be substituted for specific placards for these materials, unless 2,205 pounds or more of any one Table 2 hazardous material is loaded at one facility. Therefore, as specified in §172.504(b), FLAMMABLE placards must be displayed on a vehicle containing 2,205 pounds or more of flammable liquid loaded at one facility. The vehicle must be placarded either FLAMMABLE, NON-FLAMMABLE GAS, and CORROSIVE or FLAMMABLE and DANGEROUS.

2. **What are the marking and placarding requirements for stationary storage containers for liquefied petroleum gas transported under provisions of §173.315(j)?**

   These storage containers must be marked when in transportation in accordance with the provisions of §172.331, for bulk packagings other than portable tanks, cargo tanks, tank cars and multi-unit tank car tanks. For example, the identification number for liquefied petroleum gas, "1075," must be marked in the manner prescribed in §173.332, that is, on two opposing sides of containers having a capacity of 1,000 gallons or less and on each side and each end for containers with a capacity greater that 1,000 gallons. The transport vehicle must be placarded on each side and each end with FLAMMABLE GAS placards. [§172.504]

3. **Can labels or placards be oriented other than square-on-point?**

   Although recommended when feasible, there is no requirement to orient a label square-on-point on a package. Some small packages are too small to permit square-on-point orientation and many packages may be transported in any of several orientations. In other instances labels may be attached to tags, rendering "square-on-point" meaningless. For placards, the provisions of §172.516(c)(5) mandates a square-on-point orientation.

4. Can No. 2 fuel oil be transported in a cargo tank placarded FLAMMABLE and marked with identification number "1203"?

Yes! If the cargo tank is also used for the transportation of gasoline that has the identification number "1203". Under §172.504 (f)(2) a FLAMMABLE placard may be used on a cargo tank during transportation by highway containing materials classed as flammable and combustible liquid. Under §172.336(c)(5), a cargo tank used to transport different liquid petroleum distillate fuels, including No. 2 fuel oil, may be marked with the identification number for the distillate fuel having the lowest flash point. If gasoline is the distillate fuel with the lowest flash point, "1203" may be used as the identification number. If the cargo tank is used only for No. 2 fuel oil, the identification number "1993" must be used.

5. What are the placarding requirements for small packages of hazardous materials transported on a cargo tank in addition to the hazardous materials contained in the cargo tank?

RSPA takes the position that placarding for the small packages should be considered separately from requirements for placarding and marking the cargo tank. For example, a cargo tank containing a Poisonous liquid, n.o.s., would be placarded with POISON and marked with the identification "2810" either on orange panels or on the POISON placards. If a Corrosive liquid, n.o.s., in pails, is transported in a side compartment of the vehicle, if less than 1,000 pounds aggregate gross weight of the corrosive material is present, then CORROSIVE placards would not be required (see §172.504(c)). Otherwise, CORROSIVE placards would be required in addition to the POISON placards. In either instance, identification number markings would not be required for the corrosive material.

6. Would the use of a placard which contains shipping information such as customer name, rail tank car number, and shipment date be in violation of the HMR?

Such a placard would be in violation if by its color, shape, or square-on-point configuration it could be confused with prescribed placards. [§172.502(a)(2)]

7. May a shipment of 200 pounds of material classed flammable liquid and 200 pounds of material classed corrosive, be placarded even though it is eligible for the 1001 pound placarding exception in §172.504(c)?

Yes! The shipment may be placarded with either FLAMMABLE and CORROSIVE or DANGEROUS placards. Placarding when not required is permitted under the conditions specified in §172.502(a).

8. What are the placarding requirements for a transport vehicle containing 200 pounds of a material classed flammabl liquid which is also a "Poison Inhalation Hazard", and 200 pounds of a material classed as corrosive?

The flammabl liquid possesses a subsidiary hazard category of poisonous by inhalation and is not eligible for the 1,001 pound exception in §172.504(c). Therefore the vehicle must be placarded according to §172.505(a) on each side and each end with placards.

FLAMMABLE and POISON INHALATION HAZARD subsidiary placard

9. When must a COMBUSTIBLE placard having a white bottom be used to display an identificatio number?

It is *mandatory* during transportation by *rail* and *may* (permissive) be during transportation by highway. [§172.332(c)(4)]

10. Who is responsible for providing and affixing placards?

Each person offering (the shipper) a hazardous material for transportation by motor vehicle shall provide the carrier with the required placards unless the motor vehicle is already placarded and the carrier (driver) may not transport a hazardous material unless the required placards are affixed. [§172.506]

In the case of rail shipments, each person offering (the shipper) a hazardous material for transportation shall affix the required placards to the rail car. [§172.508]

11. When are "RESIDUE" placards required?

After October 1, 1996, the "RESIDUE" placard is no longer required. The requirements for the "RESIDUE" placard were removed from the Hazardous Materials Regulations by a fina rule issued for HM-216 on June 5, 1996.

12. How is a cargo tank containing a residue of a hazardous material to be placarded?

A cargo tank containing a residue of hazardous material would remain placarded the same as when it previously contained a greater quantity of that hazardous material. [§172.514(b) & §173.29(a)]

13. A company logo used on commercial vehicles is a square-on-point shape, about the same size as a placard and yellow in color. Is this logo in violation of the Hazardous Materials Regulations?

Section 172.502(a) of the Hazardous Materials Regulations (HMR) prohibits display on a motor vehicle or rail car of any sign or other device that, by its color, design, shape or content could be confused or conflic with any placard prescribed in the HMR. This prohibition is intended to limit the potential for dilution of hazard warning communication provided by the appropriate hazardous materials placards. The logo has a square-on-point shape and size similar to a placard and it is yellow, as is the Oxidizer placard. Based on the color, size, and shape, the logo could be confused with a placard prescribed in the HMR and, therefore, is prohibited under Section 172.502(a).

14. If a transport vehicle is loaded with a bulk packaging of a flammabl liquid, and several drums of a second flammabl liquid having a different identificatio number than the bulk shipment, can a FLAMMABLE placard on which the identificatio number of the bulk shipment is displayed serve as the placard for the second non-bulk hazardous material?

No! A second FLAMMABLE placard is required for the non-bulk materials. See §172.334(d).

15. Does a truck load of empty drums that contain the residue of a flammabl liquid have to be placarded?

No! §172.504(d) states "A non-bulk packaging that contains only the residue of a hazardous material covered by Table 2 of Paragraph (e) of this section need not be included in determining placarding requirements".

16. Must shipments of Class 9 materials be placarded?

Not for domestic shipment, but remember for a bulk shipment the identificatio number must be displayed. The identificatio number can be displayed on the Class 9 placard, an orange panel or a white-square-on-point configuration [§172.504(f)(9)]

17. For certain dangerous goods shipment in Canada, retroreflectiv placards are no longer required. Can these placards be used in the U.S.?

Yes! See §172.519(a)(3).

18. A "home care" van truck in domestic service, has a tank having a rated capacity in excess of 119 gallons mounted in the front of the van that contains OXYGEN, REFRIGERATED LIQUID. In addition, the van also contains six (6) small cylinders of OXYGEN, COMPRESSED. How is this vehicle to be marked and placarded?

Only the OXYGEN, REFRIGERATED LIQUID is being transported in bulk that requires display of the identificatio number 1073 on the vehicle using an orange panel or on the required placard. Next, both are Division 2.2 materials for which Table 2 of §172.504(e) indicates the required placard to be NON-FLAMMABLE GAS. However, paragraph 172.504(f)(7) states that the OXYGEN placard can be used in place of the NON-FLAMMABLE GAS placard.

Thus, there are several options for marking and placarding the vehicle, as follows:

(1) NON-FLAMMABLE GAS placard and an ORANGE PANEL displaying 1073.

(2) OXYGEN placard and an ORANGE PANEL displaying 1073.

(3) NON-FLAMMABLE GAS placard displaying 1073 and a second NON-FLAMMABLE GAS placard displaying no identificatio number.

(4) OXYGEN placard displaying 1073 and a second OXYGEN placard displaying no identificatio number.

(5) OXYGEN placard displaying 1073 and a NON-FLAMMABLE GAS placard displaying no identificatio number.

> **Note:** In options 3, 4 and 5 the second placard is required under §172.334(d) which states, "a placard bearing an identificatio number may not be used to meet the requirements of Subpart F of the Part unless it is the correct identificatio number for all hazardous materials of the same class in the transport vehicle or freight container on which it is displayed."

19. Section 173.301(b) states: "A container charged with a compressed gas must not be shipped unless it was charged by or with the consent of the owner of the container." Is written proof of ownership required?

No! Written proof of ownership is not required. However, an individual who refill and offers the container for transportation may be held accountable if the container was transferred by a person he "knows" is not the owner.

20. Does the fuel for the refrigeration unit and the power unit have to be considered in determination of placarding requirements?

No! Such fuel is not being transported "**in commerce**". Remember, it is stated throughout the regulations, "No person may offer or transport a hazardous material in commerce, unless that person complies with....."

21. What are the placarding requirements for a 55 gallon drum of flammabl liquid that also meets the "poison-inhalation hazard" definition

Both FLAMMABLE and subsidiary POISON INHALATION HAZARD placards are required under §172.504 and §172.505. The shipment is not eligible for the 1001 pound exception in §172.504(c) because it includes a material that is subject to §172.505(a) (poison inhalation hazard).

22. We are making a shipment of 7,000 pounds of a corrosive material along with 2,500 pounds of a flammable corrosive material all loaded at one facility. How should the truck be placarded?

Section 172.504(b) states that when 2,205 lbs. or more of one hazard is loaded at one facility, the placard specifie for that hazard *must* be displayed. Therefore the CORROSIVE placard must be displayed.

For the second material that is Flammable PG I and Corrosive, the Precedence of Hazard Table in §173.2a(b) indicates the primary hazard is Flammable, and thus the FLAMMABLE placard must be displayed. No subsidiary placard (for Corrosive) is required under §172.505(d).

23. We transport domestically, 5 gallon cans of motor oil and grease along with a tank containing approximately 400 gallons of diesel fuel. Do we need to placard and if so what must we placard the truck?

Assuming that both the motor oil and grease do not meet the definitio of any hazard class, only the diesel fuel must be considered. Assuming the diesel fuel is classifie as a combustible liquid and it is in a bulk packaging (over 119 gallons) the truck must be placarded COMBUSTIBLE on all four sides.

Remember, if the "tank" is in fact a *portable tank* it must be marked with the identificatio number on two opposite sides and if it is a *cargo tank* it must have the identificatio number displayed on each end and each side [§172.302(a)]. If the numbers on the tank are not visible when the tank is on the truck, the truck must be marked on each end and each side with the identificatio number [§172.326(c)]. The identificatio numbers can be displayed on either orange panels or the required placards.

24. Recently we were cited for not having placards available to offer carriers picking up our hazardous materials shipments. Why?

Section 172.506(a) states, "Each person offering a motor carrier a hazardous material for transportation by highway *shall provide* the required placards for the material being offered prior to or at the same time the material is offered for transportation unless the carrier's motor vehicle is already placarded for the material as required by this subpart."

Even though not expressly stated, this requirement makes it necessary that the shipper or offeror have on hand a supply of placards required for the hazardous materials being shipped in case the carrier's vehicle is not placard as needed.

25. Does a transport vehicle carrying less than 1,001 pounds aggregate gross weight of non-flammabl gases, poison gases, and corrosive materials that are poisonous by inhalation require a NON-FLAMMABLE GAS placard in addition to the POISON GAS, CORROSIVE, AND POISON INHALATION HAZARD placards?

Under Table 1 of §172.504, display of a POISON GAS placard is required for a vehicle transporting any quantity of a 2.3 material (poison gas). As provided in §172.505 and Table 2 of §172.504, a corrosive material that is poisonous by inhalation must be placarded CORROSIVE and POISON INHALATION HAZARD in any quantity. Under Table 2 of §172.504 a non-flammabl gas need be placarded only if there is 1,001 pounds or more aggregate gross weight (i.e., packaging plus contents) of Table 2 materials on the transport vehicle. Therefore, in this scenario, only the POISON GAS, CORROSIVE and POISON INHALATION HAZARD placards are required to be displayed.

26. Is the "Compatibility Group Letter" required on placards for Divisions 1.1, 1.2, and 1.3 being transported by highway?

No! Section 172.504(g) states "For Class 1 (explosive) materials by aircraft or vessel, the applicable compatibility group letter must be displayed on the placard required by this section."

Note: Section 172.522(b) states, "The "*" shall be replaced with the appropriate division number, and when required, the appropriate compatibility group letter."

27. On how many sides do you mark and placard a bulk package of hazardous material that meets the definitio of an elevated temperature material according to §171.8?

Consider the placards, identificatio number marking, and "HOT" marking as separate requirements. Then consider the type and size of the bulk packaging.

Example: A bulk package with a capacity greater than 3,785 L (1,000 gallons) must be placarded on each side and each end and marked with the identificatio number on four sides and "HOT" on two opposing sides.

Example: A cargo tank with a capacity less than 3,785 L (1,000 gallons) must be placarded on each side and each end, and marked with an identificatio number and "HOT" on two opposing sides.

Example: A portable tank with a capacity less than 3,785 L (1,000 gallons) may be placarded on two opposing sides (or labeled instead of placarded); marked with the identificatio number on two opposing sides; and marked "HOT" on two opposing sides.

If the material is Class 9 (miscellaneous) no placard is required.

28. A customer has a number of empty tote tanks (450 gal. capacity), not purged or cleaned, which originally contained different hazardous materials. These empty totes are being shipped in a van trailer. Must the appropriate placards and identificatio numbers for the different hazardous materials be displayed on the motor vehicle?

Yes! Empty bulk packagings must be transported in the same manner as when they contained a larger quantity of hazardous materials. [§173.29(a)]

29. Must a vehicle remain placarded when not on public roads until such vehicle is unloaded even when the vehicle remains loaded for an indefinit period in a consignee's fixe facility?

Yes! The indefinit period of "storage" is within the meaning of "Incident to Transportation". Furthermore, in a fina rule issued by OSHA on July 19, 1994, employers are required to

maintain package marking, labeling and transport vehicle placarding prescribed under the HMR until the hazardous materials are removed.

30. What are the placarding requirements for a motor vehicle containing 500 pounds of a Division 5.1 material with a subsidiary DANGEROUS WHEN WET hazard, 600 pounds of a Class 8 material and 300 pounds of a Class 3 material?

OXIDIZER and DANGEROUS WHEN WET placards are required for the Division 5.1 material. In addition, because there are more than 1,001 pounds gross weight of Table 2 materials on board, CORROSIVE and FLAMMABLE placards are required. Alternatively, DANGEROUS placards may be substituted for the OXIDIZER, CORROSIVE and FLAMMABLE placards. The motor vehicle would then be placarded DANGEROUS and DANGEROUS WHEN WET.

Reserved

Proper Shipping Names

1. **We ship a hazardous material that is a solution of two materials, each of which individually meets the definition of a hazardous material. One is flammable and the other is corrosive. How do we determine the proper shipping name for this material?**

   Section 172.101(c)(12)(ii) states, "If an appropriate technical name is not shown in the Table, selection of a proper shipping name shall be made from the generic or n.o.s. descriptions corresponding to the specific hazard class, packing group, or subsidiary hazard, if any, for the material. The name that most accurately describes the material shall be used."

   Assuming no proper shipping name describing the intended use of the material is listed (such as Compounds, cleaning liquid), a generic name based on the hazards of the material must be selected (such as Flammable liquid, corrosive, n.o.s.).

2. **In the answer to the preceding question, what do they mean by "generic vs. n.o.s. descriptions"?**

   Most "generic" descriptions identify the use that is made of the product, such as, "Compound, cleaning liquid," whereas the majority of "n.o.s." descriptions use the hazard class of the material as part of the descriptor, i.e., "Flammable liquid, n.o.s.."

3. **How should we list used crankcase oil being shipped domestically for use as a fuel?**

   Assuming the used crankcase oil falls within the flashpoint parameters for a combustible liquid and is being transported in bulk, it would be listed as, "Combustible liquid, n.o.s. (Oil), NA1993, PG III."

   Note: The hazard class need not be included for the entry "Combustible liquid, n.o.s." [§172.202(a)(2)]

Registration

1. **Under the Hazardous Material Registration Program, who must register?**

   The registration and fee requirements apply to any person who offers for transportation or transports a shipment in foreign, interstate or intrastate commerce any of the following:

   - Any highway route-controlled quantity of a Class 7 (radioactive) material;
   - More than 25 kg (55 lb) of a Division 1.1, 1.2 or 1.3 (explosive) material;
   - More than 1 L (1.06 qt) per package of a material extremely toxic by inhalation (i.e., "material poisonous by inhalation," as defined in §171.8, that meets the criteria for "hazard zone A," as specified in §§173.116(a) or 173.133(a));
   - A hazardous material in a bulk packaging having a capacity equal to or greater than 13,248 L (3,500 gal) for liquids or gases or more than 13.24 cubic meters (468 cubic feet) for solids; or

- A shipment (limited to that being offered or loaded at one loading facility using one transport vehicle) in other than a bulk packaging of 2,268 kg (5,000 lb) gross weight or more of one class of a hazardous materials for which placarding is required. [§107.601]
- Any shipment of hazardous materials that requires placarding.

Note: A company would only have to meet one of the criteria listed above once per year to be required to register.

2. Who is exempt from the registration and fee requirements under the Hazardous Materials Registration Program?

- An agency of the Federal Government;
- A State agency;
- An agency of a political subdivision of a State;
- An employee of any of the above agencies;
- A hazmat employee (including the owner-operator of a motor vehicle that transports hazardous materials and is leased to a registered motor carrier under a 30-day or longer lease or an equivalent contractual relationship); and
- A person domiciled outside of the U.S., who offers solely from locations outside the U.S., hazardous materials for transportation in commerce, provided the country in which the person is domiciled does not require U.S. persons to register or pay a fee.

3. What form of proof must be carried on the vehicle?

A copy of the current "Certificate of Registration," or another document bearing the registration number identified as the "U.S. DOT Hazmat Reg. No.". [§107.620(b)]

4. What are the legal penalties for failure to register?

A person who knowingly violates the requirement to register and pay the fee could receive a civil penalty of up to $55,000 per violation. "Knowingly" means knew or should have known of the requirement. [§107.329]

A person who willfully violates the requirement could be fined under title 18, United States Code, imprisoned for not more than 5 years, or both. [§107.333]

PHMSA's baseline civil penalty assessment for failing to register is $1,000 plus $500 for each additional year.

5. **Are Federal contractors excepted from the registration and fee program?**

   No!

6. **Are packaging manufacturers required to register?**

   No! PHMSA has not adopted the proposed requirement to require registration of persons who manufacture, fabricate, mark, retest, or recondition UN, DOT specification or DOT exemption packaging.

7. **Can a company obtain an exemption from the registration and fee requirements?**

   No!

8. **If a company only ships in intrastate commerce, is it subject to the registration requirements?**

   Yes! As mandated by the Hazardous Materials Transportation Uniform Safety Act of 1990 (HMTUSA), the registration requirements in §107.601 apply to all intrastate offerors and transporters in all transportation modes.

9. **What if an offeror/transporter loads a shipment at one facility consisting of 3,000 pounds gross weight of one hazard class and 3,000 pounds gross weight of another hazard class, both hazard classes require placards. Is this shipment subject to the registration requirements?**

   Yes! Any shipment of hazardous materials that requires placarding is now a requirement for registration.

10. **What if a shipment consisting of 3,000 pounds gross weight of one hazard class is loaded at Facility A and is then transported to Facility B where another 3,000 pounds gross weight of the same hazard class is loaded. Is this shipment subject to the registration requirements?**

    If the shipment requires placards, then it is subject to the requirements.

11. **Must farmers register and pay a fee?**

    A farmer engaging in any of the subject activities must register and pay a fee.

12. Are offerors or transporters of hazardous waste in any quantity required to register?

Yes! If they are engaged in any activity subject to the registration requirements.

13. If a corporation registers with PHMSA does that mean all of its subsidiaries are registered?

No! Each independently incorporated subsidiary must register and pay a fee separate from its parent company. However, a parent company may submit separate registration statements on behalf of, and for, each of its subsidiaries subject to the registration program (and itself, if also subject to the registration program) and enclose one combined registration fee payment.

14. What proof of registration is required to be maintained?

Each registrant must maintain a copy of the Certificate of Registration and a copy of the registration statement filed with PHMSA at its principal place of business for three years. In addition, motor carriers must maintain a copy of their current Certificate of Registration or another document bearing the registration number identified as the "U.S. DOT Hazmat Reg. No." on board each transport vehicle transporting hazardous materials subject to registration requirements. A copy of the certificate or the alternate document must be available for inspection, upon request, by enforcement personnel. [§107.620]

15. Must an offerer indicate, in the prior-year survey information category of the registration statement, all states through which the specified hazardous materials were transported, as well as all destination states?

No! An offerer only needs to indicate the states that were points of origin for the transport of the specified hazardous materials.

16. Is a company required to separately register and pay a fee for each branch office?

If the branch offices are not independently incorporated, the company needs only one registration statement and pay a single fee. However, the registration statement must indicate each state in which a covered activity took place.

17. Will a vessel transiting the Panama Canal or calling at a U.S. trusteeship, such as Puerto Rico, be required to register?

The term "United States" is defined in §171.8 to mean a State, the District of Columbia, Puerto Rico, Northern Mariana Islands, Virgin Islands, American Samoa, and Guam. A vessel transporting a specified hazardous material must be registered before calling at any of these U.S. areas. However, the Panama Canal is not included in the definition, therefore a vessel transiting the Panama Canal is not subject to the registration program.

18. What entities are included in the term "PERSON"?

The term "person" means an individual, firm co-partnership, corporation, company, association, joint-stock association, including any trustee, receiver, assignee, or similar representative thereof, or government, Indian tribe, or agency or instrumentality of any government or Indian tribe when it offers hazardous materials for transportation in commerce or transports hazardous materials to further a commercial enterprise.

19. Must foreign shippers, carriers, and governments register?

A person domiciled outside of the U.S., who offers solely from locations outside the U.S., hazardous materials for transportation in commerce must register, unless the country in which the person is domiciled does not require U.S. persons to register and pay a fee.

Segregation of Hazardous Materials

1. What materials are affected by the segregation requirements in 49 CFR 177.848 Segregation of hazardous materials?

Materials that meet one or more of the hazard classes define in the HMR and are:

In packages that must be labeled or placarded in accordance with Part 172,

In a compartment within a multi-compartmented cargo tank subject to the restrictions in § 173.33, or

In a portable tank loaded in a transport vehicle or freight container.

When a transport vehicle is to be transported by vessel, other than a ferry vessel, hazardous materials on or within that vehicle must be stowed and segregated in accordance with § 176.83(b).

Cyanides, cyanide mixtures or solutions may not be stored, loaded and transported with acids if a mixture of the materials would generate hydrogen cyanide; Division 4.2 materials may not be stored, loaded and transported with Class 8 liquids; and Division 6.1 Packing Group I, Hazard Zone A material may not be stored, loaded and transported with Class 3 material, Class 8 liquids, and Division 4.1, 4.2, 4.3, 5.1 or 5.2 materials.

Shipping Papers

1. How should the word "waste" be used with proper shipping descriptions?

If a material is subject to the Hazardous Waste Manifest requirements, 40 CFR Part 262 of the U.S. Environmental Protection Agency, and the word "waste" is not included as part of the proper shipping description on the Hazardous Materials Table, then the word "waste" *must* precede the shipping name. See §172.101(c)(9).

2. What is the exception for placing the total quantity of hazardous materials on shipping papers?

The exception from showing the total quantity "by weight or volume" is provided in §172.202(a)(5). It is for empty packages, cylinders of Class 2 materials, and bulk packagings such as a cargo tank. However, for cylinders and bulk packagings some indication of total quantity must be given (i.e., "10 cylinders" or "1 cargo tank").

3. A carrier makes partial deliveries of a shipment of hazardous materials along a route. Is the carrier required to adjust the quantity entries on a shipping paper to reflec a partial delivery?

The Hazardous Materials Regulations do not require a carrier to make quantity adjustments on a shipping paper following a partial delivery.

4. Because a delivery has been made in route and the present amount in the cargo tank does not contain the reportable quantity as indicated on the original shipping paper, must the the shipping paper be updated?

In an interpretation issued by PHMSA, a carrier is not required to update a shipping paper as deliveries are made. Specificall , a carrier does not have to generate a new shipping paper or remove the letters "RQ" from the shipping description when the quantity in the cargo tank falls below the "RQ" of a specifie substance.

5. How are empty packagings that have not been cleaned or purged of hazardous materials to be shown on shipping papers when offered for transportation?

The description on the shipping paper for a packaging containing the residue of a hazardous material MAY include the words "RESIDUE: Last Contained....." in association with the basic description of the hazardous material last contained in the packaging. [§172.203(e)(1)]

If the residue is in a tank car the description MUST include the words "RESIDUE: LAST CONTAINED....." before the basic description. [§172.203(e)(2)]

6. How are hazardous materials to be shown on a shipping paper?

Must be entered first or

Entered in a color that clearly contrasts with any non-hazardous material entry (highlighting a hazardous materials entry is only allowed on reproductions of the shipping paper), or

Identifie by an "X" placed before the proper shipping name in a column headed "HM".

7. What does the "basic description" on a shipping paper contain?

The "Identificatio Number," the "Proper Shipping Name," the "Hazard Class or Division," the "Subsidiary Hazard Class" or "Division Number" entered in parentheses, and the "Packing Group" (if any). This information is found in Columns 2-6 of the Hazardous Materials Table. [§172.202(b)]

8. Where and how must the driver keep hazardous materials shipping papers?

Hazardous materials shipping papers shall be clearly distinguished from other paper by either distinctively tabbing it, or by placing it firs on top of all other papers.

When the driver is in his/her seat restrained by a seat belt, the shipping papers must be within his/her reach and readily visible to a person entering the driver's compartment, or in a holder mounted to the inside of the driver's door.

When the driver is not at the vehicle's controls, shipping papers shall be on the driver's seat or in a holder mounted on the inside of the driver's door. [§177.817(e)]

9. When a name of a hazardous material is not found in the HM Table (§172.101), how is that material shown on the shipping paper?

A name listed in the Hazardous Materials Table that most accurately describes the material being shipped *shall* be used. There are generic "use" names, such as, "Compound, cleaning

liquid," "Pesticides, liquid, toxic, n.o.s.," etc. that can be used. When there is no "use" name, a name based on the hazard of the material may be used, such as, "Flammable, liquid, n.o.s.," "Corrosive, liquid, n.o.s.," etc.. However, in using a generic name the regulations may require use of the technical name(s) of one or more chemicals providing the hazard characteristic. For example, "Corrosive liquid, n.o.s. (Caprylyl chloride)." [§172.203(k)]

10. If a packaging contains the reportable quantity, is it required that the actual reportable quantity be shown on the shipping paper?

No! Only the letters "RQ" need be shown. [§172.203(c)(2)]

11. What are the proper shipping paper entries for GASOLINE and DIESEL FUEL being transported in a cargo tank?

These are both quite straight forward as neither is listed in Appendix A (Hazardous Substance List) or Appendix B (Marine Pollutant List), thus the entries are as follows:

- 1 cargo tank, UN1203, GASOLINE, 3, PG II, xxxxxx gals.
- 1 cargo tank, NA1993, DIESEL FUEL, 3, PG III, xxxxxx gals.

Note: Under §173.150(f)(1) a flammabl liquid with a flas point at or above 38°C (100°F) could be reclassifie as a "combustible liquid, which allows changing the "3" in the diesel fuel entry to COMBUSTIBLE LIQUID. The advantage of reclassificatio is that specificatio packaging is not required for a material classed as combustible [§173.150(f)(3)].

Training

1. Will a commercial driver's license (CDL) with hazmat and tank vehicle endorsements satisfy the driver training requirements in Part 172, Subpart H?

The employer must determine the applicability of CDL to the specifi functions the employee performs and provide any additional training needed.

Note: Additional certificatio is needed if the driver is transporting cryogenic or radioactive materials.

2. May a hazmat employer/employee train and test themselves (e.g., owner/operator)?

Yes, provided that all training requirements of §172.704 are met.

3. Does the trainer who teaches and tests the hazmat employee, certify that the hazmat employee is trained and tested?

No. A hazmat employer must certify that the employee has been trained and tested.

4. Does IMDG Code, ICAO Technical Instructions, OSHA or EPA training fulfil the hazmat training requirements?

This training may be used to the extent that the general awareness, function specific and safety training and testing requirements of Subpart H of Part 172 are met. Areas not covered will require additional training.

5. If an outside source trains, but does not test an employee, must an employer test and certify a hazmat employee, based on this training?

Yes.

6. What must training records contain?

Hazmat employee's name

Completion date of most recent training

Training materials (copy, description, or location)

Name and address of hazmat trainer, and

Certificatio that hazmat employee has been trained and tested.

7. Does verbal training and testing comply with §172.704?

Training and testing may be accomplished in a variety of ways: performance, verbal, written, or a combination of these. However, an employer must ensure and certify that each hazmat employee is trained in accordance with the requirements. A record of training materials and content must be retained, as specified

8. What type of fine would be involved for non-compliance with the training requirements?

Violations of any hazardous materials regulation, including training, are subject to civil (not more than $55,000 nor less than $250; $450 minimum for each training violation) and criminal penalties (imprisonment for fiv years), see §§107.329 and 107.333.

9. Do the regulations cover employees working with hazardous materials that are consumer commodities?

Yes.

10. How often must a hazmat employee receive training?

Recurrent training is required at least once every three years.

11. If a hazmat employee transfers to another hazmat employer, is the previous employer required to provide evidence of "relevant training" to either the employee or the new employer?

A current record of each hazmat employees' training, inclusive of the preceding three years, must be maintained by the employer for the duration of the employee's employment in each applicable hazardous material job function and for 90 days thereafter. A current record of relevant training is not required to be received from a previous employer, but may be used to eliminate the need of the new employer to retrain as required in §172.704(c)(2). See §172.704(c)(3).

12. §172.704 and §177.816 uses the term "may" when referring to use of other mandated training (i.e., OSHA, EPA, etc.) to meet the training requirements. Does this mean a hazmat employer would not need to retrain and test an employee if this training had been documented?

Training conducted to comply with OSHA, EPA or other mandated training requirements may be used to the extent that such training satisfie the general awareness, function specific and safety training requirements in Subpart H of Part 172.

13. Must a test for hazmat training be in a written format or may a skill demonstration suffice?

There are no detailed testing procedures. The purpose of testing is to ensure that an employee has been trained on appropriate areas of responsibility and can perform their assigned duties in compliance with the HMR. Any method of testing that achieves this purpose is acceptable.

14. Must an employee "pass" a test? If so, who or what determines the passing criteria?

Although the requirements in 49 CFR Part 172, Subpart H do not state that an employee must "pass" a test, a hazmat employee may only be certifie in those areas in which the hazmat employee can successfully perform the assigned duties.

15. Must supervisors of hazmat employees be trained?

A hazmat employer must determine whether each supervisor meets the definitio of a hazmat employee in §171.8, i.e., whether the supervisor, when performing his duties, directly affects hazardous materials transportation safety.

16. We distribute materials to retail outlets, must we train employees under the Hazardous Materials training requirement?

Yes! Assuming that some of the materials meet the definition(s of one or more DOT hazards, even a Limited Quantity material.

Water Shipments

1. Please clarify under what circumstances the training requirements of the Hazardous Materials Regulations apply to crew members aboard tugs or towing vessels?

In accordance with §176.5(b)(6), the Hazardous Materials Regulations, including the training requirements in Subpart H of Part 172, do not apply to tugs and towing vessels which are towing another vessel carrying hazardous materials. However, you may have to comply with certain Coast Guard requirements.

2. Can a flammabl liquid with a flas point at or above 38°C (100°F) that meets no other hazard class be reclassifie as a combustible liquid when transported to Hawaii?

Yes. Although the combustible liquid classificatio is generally limited to highway and rail transport, §173.150(f)(1) allows a flammabl liquid to be reclassed as a combustible liquid and be transported by vessel or aircraft when other means of transportation are impracticable. Vessel and aircraft are the only means of transportation to Hawaii. However, some carriers may operate solely under international regulations and may not accept such a reclassification

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Examples: Shipping Paper Entries, Package Marking and Labeling, Vehicle Placarding

1. **This is a domestic shipment of 10,000 gallons of "Creosote" transported in a cargo tank at a temperature above 100°C (212°F). What are the correct formats for shipping paper entry, cargo tank marking, and placarding?**

   Creosote is not listed in the §172.101 Hazardous Materials Table, but it is listed in Appendix A as having a reportable quantity of 1 pound and in Appendix B as a Marine Pollutant. It presents no other hazard.

   Shipping Paper Entry:

   1 cargo tank, RQ, UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Creosote), 9, Marine Pollutant, Hot, 10,000 gals.

   Cargo Tank Marking:

   The identificatio number "3082" must be marked on each end and each side, and the word "HOT" must be marked on two opposing sides.

   There are a number of ways in which the cargo tank may be marked.

   - MARINE POLLUTANT on each side and each end. identificatio number on an "orange panel" on each side and each end. "HOT" on a contrasting background on two opposing sides.
   - MARINE POLLUTANT on each side and each end. identificatio number on a white square-on-point configuratio (the same size as a placard) on each side and each end. "HOT" on a contrasting background on two opposing sides.
   - MARINE POLLUTANT on each side and each end. identificatio number on a white square-on-point configuratio (the same size as a placard) on each side and each end. "HOT" at the top of the white square-on-point configuratio containing the identificatio number, which would be on each side and each end.
   - ID NUMBER on the center of a Class 9 Placard on each end and each side. "HOT" on a contrasting background on two opposing sides.

   Note: Since this is a bulk shipment by highway, the MARINE POLLUTANT marking is not required when placarded, as stated in the exception under §172.322(d)(3).

   Vehicle Placarding:

   CLASS 9 PLACARD on each side and each end. However, the Class 9 placard is not required. The Class 9 placard may be used to display the identificatio number. [§172.504(f)(9)]

2. **This is a domestic shipment of ten (10) 55 gallon drums of "methyl isocyanate." What are the correct formats for shipping paper entry, package marking and labeling, and vehicle placarding?**

   Methyl isocyanate is listed in §172.101 as Class 6.1, UN2480, Packing Group I, and Special Provision 1 indicates the material is "poisonous by inhalation in Hazard ZoneA," which applies to this shipment. Appendix B shows methyl isocyanate as having a reportable quantity of 10 pounds. It is not listed in Appendix B.

Shipping Paper Entry:

10 drums, RQ, UN2480, METHYL ISOCYANATE, 6.1, (3), PG I, Poison-Inhalation Hazard, Zone A, 3,540 lbs.

Package Marking & Labeling:

Each drum shall be marked “METHYL ISOCYANATE, UN2480, and labeled with the primary label “POISON INHALATION HAZARD” and the subsidiary label “FLAMMABLE LIQUID”.

Vehicle Placarding:

The vehicle must be placarded on each end and each side with the primary placard POISON INHALATION HAZARD and the subsidiary placard FLAMMABLE.

3. **This is a domestic shipment of two (2) 55-gallons drums of “BRUCINE SOLUTION”. The solution is 50% brucine and a non-hazardous material and tests indicate it is a Class 6.1, PG I material. What are the correct formats for shipping paper entry, marking and labeling, and vehicle placarding.**

Section 172.101(b)(10)(A) prohibits the adding of the term “solution” when the packaging referenced in column 8 is inappropriate for physical state of the material provided in §172.101(i)(4). Column 8B references §173.212 which is for a solid, which would seem to eliminate the use of “solution” BUT the table in §172.101(i)(4) shows that packaging shown in §173.212 can be used for liquid materials. Thus the proper shipping name is “BRUCINE SOLUTION”.

Brucine is listed in Appendix A as having a reportable quantity of 100 pounds, and is not listed in Appendix B. To be a hazardous substance the individual package must contain the reportable quantity by weight. Since the solution is 50% Brucine and each drum contains approximately 350 pounds. (350 x .50 = 175 lbs.) Thus, the reportable quantity is in each drum, and the shipment is a hazardous substance.

Shipping Paper Entry:

2 drums, RQ, UN1570, BRUCINE SOLUTION, 6.1, PG I, 700 lbs.

Package Marking & Labeling:

Each drum must be marked “BRUCINE SOLUTION, RQ, UN1570” in association with the POISON label.

Vehicle Placarding:

Since the weight of the two drums is under 1,001 pounds, no placards are required.

4. This domestic shipment is a cargo tank load of PROPANE. What are the correct formats for shipping paper entry, cargo tank marking, and vehicle placarding?

Propane is listed in §172.101 with the identificatio number UN1978. However, Special Provision 19 states that the identificatio number UN1075 can be used for domestic shipments. The "Propane" entry in column 2 refers to the entry "Petroleum gases, liquefied, which, along with "Liquefie petroleum gas," can also be used as the proper shipping name. It is in neither Appendix A nor Appendix B.

Shipping Paper Entry:

1 cargo tank, UN1978, PROPANE, 2.1

or

1 cargo tank, UN1075, PROPANE, 2.1

or

1 cargo tank, UN1075, PETROLEUM GASES, LIQUEFIED, 2.1

or

1 cargo tank, UN1075, LIQUEFIED PETROLEUM GAS, 2.1

Cargo Tank Marking:

The proper shipping name or appropriate common name on each side and each end.

The identificatio number displayed on an orange panel or the required placard on each side and each end.

Vehicle Placarding:

FLAMMABLE GAS placard on each side and each end.

5. This domestic shipment is a cargo tank of ANHYDROUS AMMONIA. What are the correct formats for shipping paper entry, cargo tank marking, and vehicle placarding?

There are two entries for AMMONIA, ANHYDROUS. In column 1, the letter "I" preceding the firs entry indicating the entry is to be used for international shipments, and the letter "D" preceding the second entry indicates the entry can be used for domestic shipments. Anhydrous ammonia is not listed in Appendix A or Appendix B.

For domestic shipments, Column 3 shows this material to be a Division 2.2 material (non-flammabl gas) and Special Provision 13 indicates it is an "Inhalation Hazard" (not "Poison Inhalation Hazard"). The words "Inhalation Hazard" shall be entered on the shipping paper and marked on two opposing sides of the cargo tank.

Note: For international shipments, Column 3 shows this material to be a Division 2.3 (poison gas) and Special Provision 4 indicates it is poisonous by inhalation in Hazard Zone D, thus the shipping paper entry must contain the words "Poison Inhalation Hazard" and "Zone D".

Shipping Paper Entry:

1 cargo tank, UN1005, AMMONIA, ANHYDROUS, 2.2, Inhalation Hazard, 1000 gals.

Cargo Tank Marking:

The proper shipping name or appropriate common name on each end and each side.

The identificatio number displayed on an orange panel or the required placard on each end and each side.

The words “Inhalation Hazard” on two opposing sides.

Vehicle Placarding:

NON-FLAMMABLE GAS placard on each end and each side.

6. This is a domestic air shipment of POLYCHLORINATED BIPHENYLS in two 30 gallon drums. What are the correct formats for shipping paper entry, package marking, and vehicle placarding?

PCBs are listed in the §172.101 Table as a Class 9. In Appendix A the reportable quantity is shown as 1 pound, thus this shipment is a hazardous substance. Finally, in Appendix B PCBs are listed as a Severe Marine Pollutant (SMP), however, since this is an air shipment of non-bulk packagings the marine pollutant requirements do not apply.

Shipping Paper Entry:

2 drums, RQ, UN2315, POLYCHLORINATED BIPHENYLS, 9, PG II, 512 lbs.

Package Marking & Labeling:

Each drum must be marked RQ, UN2315, POLYCHLORINATED BIPHENYLS, and labeled with the Class 9 label.

Vehicle Marking & Placarding:

For a domestic shipment, the Class 9 placard is not required.

7. This is a domestic shipment of a cargo tank of CHLORINE. What are the correct formats for shipping paper entry, cargo tank marking, and vehicle placarding?

Chlorine is a Class 2.3 hazardous material and Special Provision 2 indicates it is poisonous by inhalation, Hazard Zone B. Appendix A shows Chlorine as having a reportable quantity of 10 pounds. Finally, Chlorine is listed in Appendix B as a marine pollutant.

Shipping Paper Entry:

1 cargo tank, RQ, UN1017,CHLORINE, 2.3, (8) Marine Pollutant, Poison Inhalation Hazard, Zone B

Cargo Tank Marking:

The proper shipping name or appropriate common name shall be marked on each side and each end.

The identificatio number shall be displayed on each side and each end, on an orange panel or on the required placard.

> **Note 1:** The words "Inhalation Hazard" do not need to be displayed on two sides in association with the required placards, because the words "Inhalation Hazard" appear on the placards. [§172.313(a)]
>
> **Note 2:** The marine pollutant marking is not required. See the exemption in §172.322(d)(3).

Vehicle Placarding:

The POISON GAS placard shall be displayed on each side and each end.

8. This domestic shipment is a cargo tank of KEROSENE. What are the correct formats for shipping paper entry, cargo tank marking, and vehicle placarding.

Kerosene is a Class 3 material and it is not listed in Appendix A or Appendix B. Kerosene's flashpoin is above 38°C (100°F) and thus under §173.120(b)(2) may be reclassifie as a "Combustible liquid".

Shipping Paper Entry:

1 cargo tank, UN1223, KEROSENE, Combustible liquid, PG III

Cargo Tank Marking:

For a cargo tank dedicated to transporting Kerosene ONLY:

The identificatio number "1223" shall be displayed on each side and each end.

For a cargo tank, including a multi-compartmented cargo tank that is used to transport different distillate fuels, §172.336(c)(4) & (5) provides for the display of the identificatio number of the distillate fuel having the lowest flashpoint Thus for a cargo tank that is also used to transport Gasoline (UN1203):

The display of the identificatio number "1203" is acceptable for display on each side and each end.

Vehicle Placarding:

For the cargo tank dedicated to transporting Kerosene Only:

The COMBUSTIBLE placard should be displayed on each side and each end.

> **Note:** If the identificatio number is displayed on the placard it will be an all RED placard with the flam symbol at the top. There is considerable confusion concerning the display of the I.D. number on the COMBUSTIBLE placard. For RAIL bulk shipments §172.332(c)(4) mandates that when the I.D. number is displayed on a COMBUSTIBLE placard the "entire background below the white background for the identificatio number must be white, and may be white during transportation by HIGHWAY." Thus for rail it is mandatory and for highway it is permissive.

9. We transport in a 293 gallon (approximately 2400 lbs.) portable tank a mixture of potassium hydroxide (30%) monoethanolamine (50%) and water in a van trailer. What do we need on the shipping papers, the tank and the truck?

Potassium hydroxide is listed in the §172.101 Table as a Class 8 material, Packing Group II and is listed in Appendix A as having a reportable quantity of 1000 pounds. Since only 30% of the solution is potassium hydroxide (2400 lbs. x 30% = 703 lbs.) the mixture does not contain the reportable quantity and thus it is not a hazardous substance. Furthermore, Potassium hydroxide is not listed in Appendix B and therefore is not a marine pollutant. In the §172.101 Table the entry for Monoethanolamine references Ethanolamine — which is also listed as a Class 8 material, Packing Group III but does not appear in either Appendix A or Appendix B and is neither a hazardous substance or marine pollutant.

Even though this is a solution of two corrosive materials it cannot be assumed the solution is corrosive although it seems logical that it would be, it is your responsibility to determine the hazard class of the solution.

However, proceeding on the assumption the solution is a Class 8 material, Packing Group III, the following would apply:

Proper Shipping Paper Entry

1 portable tank, UN1760, CORROSIVE LIQUID, N.O.S. (potassium hydroxide, ethanolamine), 8, PG III, 293 gallons

Portable Tank Marking and Placarding

The Class 8 placard shall be displayed on two opposite sides.

The identificatio number shall be displayed on two sides. The identificatio number can be displayed across the center of the placard, or it can be displayed on an orange panel.

Vehicle Placarding and Marking

The Class 8 placard shall be displayed on each side and each end of the vehicle.

The identificatio number must be displayed on each side and each end either on the placard or an “orange panel.”

Note: Section 172.326(c) states “If the identificatio number markings required by §172.302(a) are not visible, a transport vehicle or freight container used to transport a portable tank containing a hazardous material must be marked on each side and each end as required by §172.332 with the identificatio number specifie in the §172.101 Table.”

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TRAINING

Reserved

Overview

In May of 1992, the Research and Special Programs Administration added to the Hazardous Materials Regulations, Subpart H — Training "... to enhance training requirements for persons involved in the transportation of hazardous materials" as mandated by the Hazardous Materials Transportation Uniform Safety Act of 1990 (HMTUSA).

The training regulations as promulgated by the Research and Special Programs Administration (RSPA) of the Department of Transportation are as follows:

Subpart H — Training

§172.700 Purpose and scope.

(a) *Purpose.* This subpart prescribes requirements for training hazmat employees.

(b) *Scope.* Training as used in this subpart means a systematic program that ensures a hazmat employee has familiarity with the general provisions of this subchapter, is able to recognize and identify hazardous materials, has knowledge of specific requirements of this subchapter applicable to functions performed by the employee, and has knowledge of emergency response information, self-protection measures and accident prevention methods and procedures (see §172.704).

(c) *Modal-specific training requirements.* Additional training requirements for the individual modes of transportation are prescribed in parts 174, 175, 176, and 177 of this subchapter.

§172.701 Federal-State relationship.

This subpart and the parts referenced in §172.700(c) prescribe minimum training requirements for the transportation of hazardous materials. For motor vehicle drivers, however, a State may impose more stringent training requirements only if those requirements—

(a) Do not conflict with the training requirements in this subpart and in Part 177 of this subchapter; and

(b) Apply only to drivers domiciled in that State.

§172.702 Applicability and responsibility for training and testing.

(a) A hazmat employer shall ensure that each of its hazmat employees is trained in accordance with the requirements prescribed in this subpart.

(b) Except as provided in §172.704(c)(1), a hazmat employee who performs any function subject to the requirements of this subchapter may not perform that function unless instructed in the requirements of this subchapter that apply to that function. It is the duty of each hazmat employer to comply with the applicable requirements of this subchapter and to thoroughly instruct each hazmat employee in relation thereto.

(c) Training may be provided by the hazmat employer or other public or private sources.

(d) A hazmat employer shall ensure that each of its hazmat employees is tested by appropriate means on the training subjects covered in §172.704.

§172.704 Training requirements.

(a) Hazmat employee training shall include the following:

(1) *General awareness/familiarization training.* Each hazmat employee shall be provided general awareness/familiarization training designed to provide familiarity with the requirements of this subchapter, and to enable the employee to recognize and identify hazardous materials consistent with the hazard communication standards of this subchapter.

(2) *Function-specific training.* (i) Each hazmat employee must be provided function-specific training concerning requirements of this sub-chapter, or exemptions or special permits issued under subchapter A of this chapter, that are specifically applicable to the functions the employee performs.

(ii) As an alternative to function-specific training on the requirements of this subchapter, training relating to the requirements of the ICAO Technical Instructions and the IMDG Code may be provided to the extent such training addresses functions authorized by §§171.11 and 171.12 of this subchapter.

(3) *Safety training*. Each hazmat employee shall receive safety training concerning—

(i) Emergency response information required by Subpart G of Part 172;

(ii) Measures to protect the employee from the hazards associated with hazardous materials to which they may be exposed in the work place, including specific measures the hazmat employer has implemented to protect employees from exposure; and

(iii) Methods and procedures for avoiding accidents, such as the proper procedures for handling packages containing hazardous materials.

(4) *Security awareness training*. Each hazmat employee must receive training that provides an awareness of security risks associated with hazardous materials transportation and methods designed to enhance transportation security. This training must also include a component covering how to recognize and respond to possible security threats. After March 25, 2003, new hazmat employees must receive the security awareness training required by this paragraph within 90 days after employment.

(5) *In-depth security training*. Each hazmat employee of a person required to have a security plan in accordance with subpart I of this part who handles hazardous materials covered by the plan, performs a regulated function related to the hazardous materials covered by the plan, or is responsible for implementing the plan must be trained concerning the security plan and its implementation. Security training must include company security objectives, organizational security structure, specific security procedures, specific security duties and responsibilities for each employee, and specific actions to be taken by each employee in the event of a security breach.

(b) *OSHA or EPA Training*. Training conducted by employers to comply with the hazard communication programs required by the Occupational Safety and Health Administration (OSHA) of the Department of Labor (29 CFR 1910.120) or the Environmental Protection Agency (EPA)(40 CFR 311.1), to the extent that training addresses the training specified in paragraph (a) of this section, may be used to satisfy the training requirements in paragraph (a) of this section, in order to avoid unnecessary duplication of training.

(c) *Initial and recurrent training*—(1) *Initial training*. A new hazmat employee, or a hazmat employee who changes job functions may perform those functions prior to the completion of training provided—

(i) The employee performs those functions under the direct supervision of a properly trained and knowledgeable hazmat employee; and

(ii) The training is completed within 90 days after employment or a change in job function.

(2) *Recurrent training*. A hazmat employee must receive the training required by this subpart at least once every three years. For in-depth security training required under paragraph (a)(5) of this section, a hazmat employee must be trained at least once every three years or, if the security plan for which training is required is revised during the three-year recurrent training cycle, within 90 days of implementation of the revised plan.

(3) *Relevant Training*. Relevant training received from a previous employer or other source may be used to satisfy the requirements of this subpart provided a current record of training is obtained from hazmat employees' previous employer.

(4) *Compliance*. Each hazmat employer is responsible for compliance with the requirements of this subchapter regardless of whether the training required by this subpart has been completed.

(d) *Recordkeeping*. A record of current training, inclusive of the preceding three years, in accordance with this section shall be created and retained by each hazmat employer for as long as that employee is employed by that employer as a hazmat employee and for 90 days thereafter. The record shall include:

(1) The hazmat employee's name;

(2) The most recent training completion date of the hazmat employee's training;

(3) A description, copy, or the location of the training materials used to meet the requirements in paragraph (a) of this section;

(4) The name and address of the person providing the training; and

(5) Certification that the hazmat employee has been trained and tested, as required by this subpart.

(e) *Limitation.* The following limitations apply:

(1) A hazmat employee who repairs, modifies, reconditions, or tests packagings, as qualified for use in the transportation of hazardous materials, and who does not perform any other function subject to the requirements of this sub-chapter, is not subject to the training requirement of paragraph (a)(3) of this section.

(2) A railroad maintenance-of-way employee or railroad signalman, who does not perform any function subject to the requirements of this subchapter, is not subject to the training requirements of paragraphs (a)(2), (a)(4), or (a)(5) of this section. Initial training for a railroad maintenance-of-way employee or railroad signalman in accordance with this section must be completed by October 1, 2006.

The regulations in Part 172, Subpart H, require employee training and require "hazmat employers" to certify that their "hazmat employees" have been **trained** and **tested**.

The terms "hazmat employer" and "hazmat employee" are defined in §171.8 as:

Hazmat Employer means:

(1) A person who employs or uses at least one hazmat employee on a full-time, part time, or temporary basis; and who:

(i) Transports hazardous materials in commerce;

(ii) Causes hazardous materials to be transported in commerce; or

(iii) Designs, manufactures, fabricates, inspects, marks, maintains, reconditions, repairs or tests a package, container, or packaging component that is represented, marked, certified, or sold by that person as qualified for use in transporting hazardous materials in commerce;

(2) A person who is self-employed (including an owner-operator of a motor vehicle, vessel, or aircraft) transporting materials in commerce; and who:

(i) Transports hazardous materials in commerce;

(ii) Causes hazardous materials to be transported in commerce; or

(iii) Designs, manufactures, fabricates, inspects, marks, maintains, reconditions, repairs or tests a package, container, or packaging component that is represented, marked, certified, or sold by that person as qualified for use in transporting hazardous materials in commerce; or

(3) A department, agency, or instrumentality of the United States Government, or an authority of a State, political subdivision of a State, or an Indian tribe; and who:

(i) Transports hazardous materials in commerce;

(ii) Causes hazardous materials to be transported in commerce; or

(iii) Designs, manufactures, fabricates, inspects, marks, maintains, reconditions, repairs or tests a package, container, or packaging component that is represented, marked, certified, or sold by thatperson as qualified for use in transporting hazardous materials in commerce.

Hazmat employee means:

(1) A person who is:

(i) Employed on a full-time, part time, or temporary basis by a hazmat employer and who in the course of such full time, part time or temporary employment directly affects hazardous materials transportation safety;

(ii) Self-employed (including an owner-operator of a motor vehicle, vessel, or aircraft) transporting hazardous materials in commerce who in the course of such self-employment directly affects hazardous materials transportation safety;

(iii) A railroad signalman; or

(iv) A railroad maintenance-of-way employee.

(2) This term includes an individual, employed on a full time, part time, or temporary basis by a hazmat employer, or who is self-employed, who during the course of employment:

(i) Loads, unloads, or handles hazardous materials;

(ii) Designs, manufactures, fabricates, inspects, marks, maintains, reconditions, repairs, or tests a package, container or packaging component that is represented, marked, certified, or sold as qualified for use in transporting hazardous material in commerce.

(iii) Prepares hazardous materials for transportation;

(iv) Is responsible for safety of transporting hazardous materials;

(v) Operates a vehicle used to transport hazardous materials.

Before discussing the specifi areas of training, let's take a look at the organization of the Hazardous Materials Regulations (HMR) with an emphasis on Part 172 and the manner in which this part is organized. Although Part 172 is further divided in to Subparts, such as, Subpart H — Training, most references are made to section numbers, for example most references to the Hazardous Materials Table are given as §172.101. In order to locate requirements within Part 172, remembering the following can save considerable time.

100s (§§172.100 - 172.102) = Hazardous Materials Table & Appendices

200s (§§172.200 - 172.205) = Shipping Papers

300s (§§172.300 - 172.338) = Package Marking

400s (§§172.400 - 172.450) = Labeling

500s (§§172.500 - 172.560) = Placarding

600s (§§172.600 - 172.604) = Emergency Response

700s (§§172.700 - 172.704) = Training

800s (§§172.800 - 172.822) = Safety and Security Plans

Although certain hazmat employees will need to understand various portions of the regulations in Parts 173 through 180 in order to meet the function specifi knowledge requirements, all must have a good understanding of the requirements in one or more of the sections in Part 172.

The Hazardous Materials Regulations

This section provides the hazmat employer (trainer) with assistance by discussing the primary areas within the Hazardous Materials Regulations.

The individual areas chosen for discussion include the following:

- The Hazardous Materials Table
- Shipping Papers
- Packaging
- Package Marking and Labeling
- Loading and Storage, and
- Vehicle Placarding

No attempt is made in each of these subject areas to be all inclusive in the coverage of the requirements. Each of these subject areas provides some of the primary requirements and guides the user to where these and other requirements are to be found in the Hazardous Materials Regulations (HMR).

Hazardous materials table §172.101

Once it has been determined the material to be shipped meets the definitio of one or more of the hazards define in the regulations, the Hazardous Materials Table is the starting point for guidance to the requirements for transportation of hazardous materials in commerce.

Column 1 contains the following codes:

+ Fixes the proper shipping name, hazard class and packing group for that entry without regard to whether the material meets the definitio of that class or packing group or meets any other hazard class definition

A Restricts the application of the requirements to materials offered or transported by air, except for hazardous substances or wastes.

G Identifie proper shipping names for which one or more technical names must be entered in parentheses, in association with the basic description.

D Identifie proper shipping names which are appropriate for domestic transportation.

I Identifie proper shipping names which are appropriate for international transportation.

W Restricts the application of the requirements to materials offered or transported by water, except for hazardous substances or wastes.

Column 2 contains all the possible proper shipping names for each and every hazardous material subject to these regulations. The name that most accurately describes the material shall be used. Only the names showed in Roman type (not ital) are proper shipping names.

Columns 3, 4, and 5 list the next three items that must be included in the basic description that must be on the shipping paper — hazard class or division, identifi cation number, and the packing group, when applicable.

Column 6 lists the codes which represent the hazard warning label or labels for the package. If more than one label code is listed, the firs entry is the code for the primary label and the following entries are the codes for the subsidiary labels. Both primary and subsidiary labels must be displayed on non-bulk packages.

Column 7 references "Special Provisions" listed in §172.102. Time can be saved if you learn to recognize the applicability of each of the eight (8) codes.

(1) Numeric codes are applicable to all modes of transportation and both bulk and non-bulk packagings.

(2) Codes containing the letter "A" apply only to transportation by air.

(3) Codes containing the letter "B" apply only to bulk packagings; unless otherwise provided in the regulations these codes do not apply to UN, IM specification portable tanks or IBCs.

(4) Codes containing the letters "IB" or "IP" apply to transportation in IBCs.

(5) Codes containing the letter "N" apply only to non-bulk packagings.

(6) Codes containing the letter "R" apply only to transportation by rail.

(7) Codes containing the letter "T" apply only to transportation in UN or IM specification portable tanks.

(8) Codes containing the letters "TP" apply to a portable tank special provision for UN or IM specification portable tanks in addition to any other applicable instructions or requirements.

(9) Codes containing the letter "W" apply only to transportation by water.

Column 8 references the sections in Part 173 that list the different types of packagings authorized. Column 8 is divided into 3 sections: 8A "Exceptions", 8B "Non-bulk" and 8C "Bulk". It is important to check the sections referenced in 8C since the exception(s) may exempt the shipper from shipping papers, labeling, placarding, or performance-oriented packaging requirements.

Column 9 shows the maximum quantity allowed in a single packaging for both passenger aircraft or railcar, and cargo aircraft only.

Column 10 references vessel stowage requirements.

A sound understanding and proper use of the Hazardous Materials Table is absolutely necessary for a good compliance program.

Reserved

Shipping Papers

A "shipping paper" means a shipping order, bill of lading, manifest, or any other shipping document serving a similar purpose and containing the information required by §§172.202, 172.203 and 172.204. The HM regulations DO NOT prescribe a format for a shipping paper, but it does mandate specifi information be on the document and the sequence in which the information MUST be shown.

Remember, every shipment of hazardous materials MUST be accompanied by a properly prepared shipping paper, unless excepted, even it it is just a "trip ticket." It isn't the format that is important, it's the information and the manner in which it is presented that is important. How important does DOT consider the shipping paper? In the vast majority of enforcement actions, one of the most often cited violations is for lack of or improperly prepared shipping papers.

Why is the shipping paper considered so very important? A properly prepared shipping paper is the means by which the most complete information concerning the shipment and its hazard(s) are communicated to all parties involved in the movement of the hazardous materials. In case of an incident, emergency response personnel need as much information about the shipment as possible and rely heavily on shipping papers as the starting point.

There are three (3) acceptable ways to show a hazardous material description on a shipping paper that also contains a non-hazardous material description. [§172.201(a)(1)]

(1) List the hazardous material entry **first** before entries for non-hazardous materials, or

(2) List the hazardous material entry in a **color** that clearly distinguishes the hazardous material from non-hazardous materials. A description on a reproduction of a shipping paper may be highlighted, rather than printed in a contrasting color, or

(3) The hazardous material entry can be identifie by placing an "**X**" before the proper shipping name in a column headed "HM". (When "RQ" is required on the shipping paper it may be entered in place of the "X".)

The basic description on a shipping paper shall contain: the UN/NA identificatio number; the proper shipping name; the hazard class or division; the subsidiary hazard class or division number entered in parentheses; the packing group (if applicable); and the total quantity including the unit of measurement.

In addition to the basic description, §172.203 requires additional information that may be required to be included on the shipping paper. Of special importance is the requirement that some generic and n.o.s. proper shipping names must be accompanied by the technical name(s) in parentheses.

Special instructions for the preparation of a Uniform Hazardous Waste Manifest required by the Environmental Protection Agency, are found in §172.205. There are also special instructions for each mode of transportation (Parts 174, 175, 176, and 178).

Packaging

There are two types of non-bulk packaging authorized for use. The firs are those based on detailed manufacturing specifications These are identifie by the DOT Specificatio markings (such as DOT-17H). Although these DOT packagings can continue to be transported until October 1, 1999 (if fille prior to October 1, 1996), they can no longer be manufactured or filled The second, are the "performance-oriented packagings" based on the United Nations recommended types of packagings. These are identifie by the UN marking (such as UN 1A1).

The manufacturer's markings on the packagings will identify the type of packaging. To illustrate, a 55-gallon drum manufactured in compliance with the "old" detailed manufacturing specification might be marked as follows:

DOT-17H, STC
18/16-55-83

plus the manufacturer's name or registration mark.

A similar drum manufactured in compliance with the performance-oriented standards might be marked:

un

1A1/Y1.4/150/83

USA/VL824

1.0

There is little chance of mistaking the two packagings since those manufactured to detailed specificatio will begin with the letters "DOT", and packagings manufacture in compliance with the performance-oriented standards will contain the letters or symbol "UN".

One very important thing to remember concerning packaging requirements, is that in addition to the performance-oriented standard in Part 178, ALL packagings must also be in compliance with the General Requirements for non-bulk and bulk packagings as mandated in §§173.24, 173.24a, and 173.24b. To illustrate, §173.24(e) states, "...it is the responsibility of the person offering (the shipper) a hazardous material for transportation to ensure that such packagings are compatible with their lading." Packaging manufactures may and may not test packaging-product compatibility, although most will perform the required "drop", "leakproof-ness", "hydrostactic", "stacking", and "vibration" tests.

Package marking

It is important to remember that "package marking" and "labeling" are two distinct requirements, and "marking" will be discussed first

Although there are two types of package marking — the manufacturer's marking, and the shipper's marking — it is the latter to be discussed here. The shipper's marking relates to "hazard communications" and is required to some degree on all packagings containing hazardous materials. The detailed requirements are found in Part 172, Subpart D beginning at §172.300. There are differences in the requirements for non-bulk and bulk package marking, and this discussion begins with non-bulk package marking.

The basic information required on non-bulk packages is mandated in §172.301 as follows:

(1) The *Proper Shipping Name*, including any technical name required to be shown in parentheses following generic or n.o.s. proper shipping names,

(2) The *Identificatio Number*, and

(3) The *Consignee's or Consignor's Name and Address*, with exceptions [see §172.301(d)].

In addition, there are a number of special markings required, such as, the "Package Orientation Arrows" for combination packagings containing liquid hazardous materials (§172.312), special "radioactive materials" and "hazardous substances" markings (§§172.310 and 172.324 respectively), "marine pollutants" (§172.322), "inhalation hazard" for certain packagings containing materials poisonous by inhalation (§172.313), and special markings for explosives and elevated temperature materials [§§172.320 and 172.325 respectively].

Questions often arise concerning the size and location of markings on non-bulk packagings. The marking requirements do not specify the size or style of type only that the marking be durable; in English; on a contrasting background; unobstructed by labels or attachments; and located away from other markings such as advertising, which would substantially reduce its effectiveness. The marking as indicated is required on only one (1) side, but not on the bottom of the package.

All bulk packagings, unless excepted, must be marked with the UN/NA identificatio number as specifie in §172.332. Whether on two sides, or two sides and both ends depends on the size of the package [see §172.302(a)].

Three options are provide for the display of the identificatio numbers, (1) on an "orange panel" specifie in §172.332(b), (2) on the required placard as specifie in §172.332(c), or (3) on a white "square-on-point" configuratio having the same outside dimensions as a placard as authorized in §172.336(b). Remember, the display of an identificatio number is a "marking" requirement, not a "placarding" requirement. In instances where an exception from placarding is provided, the identificatio number is not excepted and must still be displayed.

In addition to the display of the identificatio number(s) on bulk packagings, other requirements may mandate the display of the "HOT" marking, "Inhalation Hazard", "Marine Pollutant", and proper shipping names on bulk packagings (see §§172.302 through 172.338). Unlike non-bulk packaging markings, the size of bulk packaging markings are specified

Labeling

In the Hazardous Materials Regulations the term "label" specificall refers to one of the DOT mandated hazard warning labels illustrated in §§172.411 through 172.450. These labels are "square-on-point" shaped measuring 4 inches on each side. However, two special "warning" labels are rectangular — the "Cargo Aircraft Only" and "Empty" labels.

There are requirements for the display of both primary and subsidiary hazard warning labels.

In general, the required label(s) are to be printed on or affixed to a surface (other than the bottom) of the package and in association with the proper shipping name and the UN/NA identificatio number. Exceptions are provided for cylinders, and small packages with insufficient surface space (§172.406). When both a primary and a subsidiary label are required, they shall be displayed next to each other.

Remember, when hazardous materials having different hazards are authorized to be packaged in the same outside packaging, labels required for each hazard class of hazardous materials shall be displayed on the outside packaging.

One fina reminder pertaining to package marking and labeling. When an empty packaging containing the residue of a hazardous material is to be transported it "*...shall be offered for transportation and transported in the same manner as when it previously contained a greater quantity of that hazardous material*" (see §173.29). This means the packaging shall remain marked and labeled the same as when the hazardous material was originally offered for transportation.

Loading and Storage

The primary loading, unloading, and storage requirements are found in the regulations for each mode of transportation, i.e., Part 174 for rail, Part 175 for aircraft, Part 176 for vessel and Part 177 for highway. There are general loading/unloading requirements applicable to all modes, such as, all hazardous materials shall be properly blocked and braced to prevent movement during transit. But the loading, unloading, and storage requirement designed to fit the special needs of each mode of transportation are in the Parts referenced above. In the following, some of the loading, unloading, and storage requirements will be pointed out for each mode.

Rail

Hazardous materials having different classifications may or may not be loaded and transported together depending on their compatibility or lack thereof. For example, cyanide and cyanide mixtures may not be loaded along with acids in the same rail car. An accidental mixing of these two materials will produce a very deadly gas. In order to prevent comingling of non-compatible materials, §174.81(d) contains the "Segregation Table for Hazardous Materials". No hazardous materials may be loaded, transported or stored except as provided in this table.

There are special requirements for certain hazardous materials, for example, the loading, transportation and storage of Class 1 (explosive) materials must be as provided in the "Compatibility Table for Class 1 (Explosive) Materials" [§174.81(f)].

In the case of rail transportation of hazardous materials, further safety is mandated through requirements such as the positioning of rail cars within the train as provided in §174.85(d), the table "Position of Trains of Placarded Cars Transporting Hazardous Materials."

Note the tank car unloading requirements in §174.67. In addition to posting of caution signs, one especially important requirement is the "attendance" mandated in paragraph (i) which states, "Throughout the entire period of unloading and while the car is connected to the unloading device, the car must be attended by the unloader." Although not expressly stated in the regulations at this time, electronic monitoring MAY BE permitted under certain circumstances.

Aircraft

Loading and storage requirements begin in Column 9 of the HM table (§172.101) which indicates the maximum quantity of a hazardous material that can be in an individual package. The maximum quantity per package varies depending upon whether the material is to be loaded and transported on a passenger carrying aircraft or a cargo only aircraft.

The primary loading, unloading, and handling provisions are contained in Subpart B of Part 175, which include general quantity limitations and stowage restrictions aboard aircraft. Note particularly that packages are to be loaded and stored in an aircraft as prescribed in Table 1 of §175.78.

Further loading and stowage requirements are specified for packagings of the different hazard classes of materials, especially Class 6 (poisonous) and Class 7 (radioactive) materials.

Vessel

The shipper has very little to do with the loading and storage of hazardous materials aboard a vessel. However, understanding some of the stowage requirements and prohibitions does at times affect the packaging selection. Again, the HM Table (§172.101) is the starting point. Column 10A indicates where aboard a vessel the material can be stowed, i.e., "on deck", "below deck", etc.. In Column 10B are references to special provisions in §176.84, some of which must be considered in selecting packagings. For example, there are several references which indicate that "Glass carboys are not permitted under deck."

Stowage aboard vessels is of prime importance, thus the general segregation requirements of §176.83 and the special requirements for explosives in §§176.144 and 176.166 provide the regulatory guidance on stowage aboard cargo and passenger carrying vessels.

Highway

Part 177 Subpart B contains the loading and unloading requirements for transportation of hazardous materials via highway. The general requirements in §177.834 should be gone over very thoroughly, but pay special attention to paragraph (i), attendance during the loading and unloading of cargo tanks. This paragraph states, "A person 'attends' the loading and unloading of a cargo tank if, throughout the process he is awake, has an unobstructed view of the cargo tank, and is within 7.62 meters (25 feet) of the cargo tank."

As with all modes of transportation, the segregation table in §177.848 governs the loading and storage of hazardous materials of different hazards. In addition, there are restrictions on the loading of various individual classes of hazardous materials, such as the restriction for poisons which prohibits the transport of a package "Bearing a POISON or POISON INHALATION HAZARD label in the same motor vehicle with a material marked as or known to be foodstuffs or an edible material intended for consumption by humans or animals unless the poisonous material is packaged in accordance with the regulations and is:

(i) Overpacked in a metal drum as specified in §173.25(c) of the regulations; or

(ii) Loaded into a closed unit load device and the foodstuffs, feed, or other edible material are loaded into another closed unit load device.

Placarding

Placarding is another means of communicating the hazard(s) of the materials being transported. Each bulk packaging, freight container, unit load device, transport vehicle, or railcar containing hazardous materials must be placarded as specified in Part 172 Subpart F.

When must a shipment be placarded? In general, this question is answered within the general requirements of §172.504. Although there are other special requirements in this subpart, understanding the requirements of §172.504 will make compliance easier. First look over the hazard categories listed in Tables 1 and 2. Placards are required for the categories listed in Table 1 **regardless of the quantity** being transported. However, for those categories listed in Table 2, placarding in more complicated.

When the shipment includes an aggregate gross weight of 454 kg (1,001 lb) or more of one or more categories listed in Table 2, placards are required. Now the question is "What placard or placards are required?" IF the shipment includes one category of hazardous materials listed in Table 2, the placard specified for that category must be displayed.

If the shipment is made up of materials in different categories having an aggregate gross weight of 454 kg (1,001 lb) or more, a DANGEROUS placard may be used in place of placards representing the different hazard categories present.

However, when 1,000 kg (2,205 lb) or more of any one category is loaded at one loading facility, the DANGEROUS placard may no longer be used for that category and the specific placard for that category must be used.

The DANGEROUS placard may still be used to indicate the presence of one or more categories of Table 2 hazardous materials that are present in addition to the commodity over 1,000 kg. The individual class placard would be required for the commodity over 1,000 kg but the DANGEROUS placard could be used if other Table 2 materials are present.

The display of "subsidiary" placards is required in §172.505 for certain classes of materials, and it also allows for the display of subsidiary placards for other classes of materials as long as the material exhibits the hazard.

As previously stated, not all requirements are discussed here, but one that is of special importance is the requirement for placarding of "empty" bulk packagings. In general, when emptied, each bulk packaging shall remain placarded as it was when it contained a greater amount of the material. However, these placards are not required if the bulk packaging is sufficiently cleaned of residue and purged of vapors to remove any potential hazard, or has been refilled with a material requiring different placards or no placards.

Areas of Training

Part 172 Subpart H mandates training in four specific areas — "General Awareness/Familiarization," "Function Specific," "Safety," and "Security Awareness." Although there is no specific mandate for "Driver" training, reference is made to "Modal-specific training requirements" as prescribed in Parts 174, 175, 176 and 177. In the latter, §177.800(c) mandates training in accordance with Subpart H of Part 172, and §177.816 specifies driver training requirements.

Security Awareness is addressed in the new Security tab.

General Awareness/Familiarization Training

The training regulations mandate that each hazmat employee must have a basic understanding of the Hazardous Materials Regulations. What is necessary to comply with the "General Awareness/Familiarization" training mandate?

First, let's clarify exactly who must receive this training. Section 172.704(a) states, "Each hazmat employee shall be provided general awareness/familiarization training...," and a hazmat employee is defined in §171.8 to "...mean a person who is employed by a hazmat employer and who in the course of employment directly affects hazardous materials transportation safety..." This a very inclusive mandate as many persons in a company directly affect the safe transportation in one way or another.

Every one from top management personnel who are responsible for assuring compliance with the regulations, to the chemist who must determine the material's hazard(s), to clerical staff responsible for the preparation of shipping papers, to the purchasing agent who is responsible for the purchase of raw materials and proper packaging, to plant workers who package the hazardous materials, to shipping personnel and any other employee with ANY direct part to play in the preparation and shipment of hazardous materials must understand in a very general way what is required by the regulation — "General Awareness/Familiarization."

The hazmat employer must look very carefully at each employee's job responsibilities to make certain whether or not hazmat training is required and to what extent. Once this has been done, exactly how much must be covered. Again, remember that this part of the training is very basic, with detailed hazmat training to be covered under the "function specific," "safety," and "driver" elements of the training.

It is here that all hazmat employees are introduced to the broad scope of the regulations and what they cover: the purpose of the regulations; a general idea of just what is meant by the term "hazardous materials" as defined by the Department of Transportation and the fact that there are different classes of hazards; what is involved in the safe transportation of a hazardous material, such as, proper classification, required packaging, package marking and labeling, shipping papers, loading and storage of hazardous materials on the vehicle, placarding and marking of vehicles; and even that hazmat training is mandated by the regulations.

Remember, during this portion of the training program it is not necessary to provide a detailed and complete understanding of the hazardous materials regulations. The details in each of the other areas will be covered during the employee's "functions specific", "safety", and "driver" training in accordance with the employee's need to know in order to perform his/her job function in compliance with the regulations.

Function-Specific Training

The second and probably the most intensive area of training required by Subpart H of Part 172 is, and to a large extent, the most demanding of the training requirements for the hazmat employer, is function-specific training. This portion of the training program makes it necessary for the hazmat employer to take a close look at each job function to determine whether a hazmat function exists and then what specific training is required for the hazmat employee to be able to perform his/her job function in compliance with the hazmat regulations.

Note: An "Audit" section is included following this training discussion to assist the hazmat employer in determining just what training is required for each hazmat employee.

The chemist may very well require function-specific training since he/she may be required to determine whether a material is hazardous and classify the material with one or more of the DOT hazard classes. How about the company's clerical staff, do any of them require function-specific training? Watch it! The job function of one or more persons in a clerical position may include a function directly relating to safety in the transportation of hazardous materials. There are those who are responsible for preparing the hazardous materials shipping paper or purchase order for raw materials and packagings for the commodity to be shipped.

In one case, the employee should understand the requirements for a properly prepared hazardous materials shipping paper, and in the other instance, the preparation of a purchase order for a hazardous material or the packaging for a hazardous material requires a degree of technical understanding of the regulations and how they work. In each of these instances, the amount of training may only be in reference to a limited portion of the regulations, but there are others whose need for training are quite extensive.

An example of a job function requiring extensive hazmat training, is the compliance officer. Although your company may not have a position specifically for this function, someone in every company involved in activities directly related to the transportation of hazardous materials must have that responsibility. The person with the regulatory compliance responsibility must have a thorough understanding of the hazardous materials and their applicability.

The following job function examples are presented to provide the hazmat employer with some direction in evaluating function-specific training needs for different job functions. These example provide some guidance, BUT in your company there will quite possibly be differences from the premises upon which these examples are based.

Before getting into the examples, just a reminder that although there may be four areas of training required in your company (general awareness/familiarization, function-specific, safety, and driver training) it does not mean that each of these areas need be handled separately.

Compliance Officer

The Compliance Officer, although your company may not have this title, is someone within the organization who is responsible for knowing and understanding the Hazardous Materials Regulation (49 CFR Parts 106-180). Quite often the person with this responsibility also is responsible for overall hazmat employee training.

The compliance officer and the trainer functions require the greatest level of HM regulatory knowledge. Often, the compliance officer must provide regulatory assistance to others, such as, the purchasing department which may need assistance in ordering the proper packaging, or the shipping department may need guidance in marking and labeling the hazardous material for shipment.

The compliance officer's regulatory knowledge needs are the most extensive of any hazmat employee. Gaining the necessary knowledge is not something to be learned overnight. A great deal of 'self-study' by the individual will be necessary. But for starters, he/she will need up-to-date copies of the regulations. In most cases it's a good idea to attend hazardous materials seminars and workshops.

One helpful technique is for the compliance officer to develop a list of questions pertaining to the regulations. First, attempt to answer your own questions using the regulations. If that fails or you are not certain, consult with outside sources. However, be very careful in the selection of the sources. The Research and Special Programs Administration's Office of Hazardous Materials Standards, and the individual Federal Highway Administration's Offices of Motor Carriers in each state are the best bet (see listings in the "ENFORCEMENT" section of this manual).

Don't hesitate to consult with others having function-specific knowledge. For example, in studying the different hazard class definitions there may be technical terms which are not sufficiently defined within the regulations, such as, "flashpoint". A person in this position may find it advantageous to consult a chemist either inhouse or outside the company to more fully understand flashpoint. You can gain a great deal of understanding by consultation with so called "experts" in various phases of the hazardous materials regulations, for example a packaging manufacturer.

As previously stated, it is advisable to attend one or more multi-day hazardous materials seminars designed for persons such as the compliance officer. These are often referred to as "Train the Trainer" programs. Periodic attendance is advisable. Quite often seminars of this type have Federal/State regulatory personnel in attendance as presenters.

The employee should avail himself or herself of and use any and all training materials available which will provide a more complete understanding of the regulations.

Finally, the company's success in complying with the Hazardous Materials Regulations and its hazardous materials training program are founded on the compliance officer's and/or trainer's knowledge of the regulations and his/her commitments to compliance.

Chemist

The Chemist function may be conducted within the company or it maybe assigned to and outside vendor. But remember, in reference to the shipper's responsibility §173.22(a)(1) states, "The person shall class and describe the hazardous material...", in other words the classification of materials is the shipper's responsibility. A word of caution, the hazard class(s) of a mixture containing one or more hazardous materials must be determined. It cannot be assumed the hazard class of the mixture is the same as one or both of the basic constituents.

In many instances, the only way the hazard class of a mixture can be determined is by testing, and this function is carried out by the chemist. If your company does have one or more chemists on staff with this responsibility, they must receive function-specific hazmat training the same as any other hazmat employee. The question is, what is the extent of the function-specific hazmat training required for the chemist(s)?

The chemist's primary regulatory responsibility, as a hazmat employee, is the classification of hazardous materials based on the hazard class definitions established by the Department of Transportation in the Hazardous Materials Regulations.

Once the hazard class determination has been accomplished, the chemist's primary hazmat responsibility is ended. However, remember that IF the formulation of the material changes at any time it may be necessary for the chemist to again check the classification.

Purchasing Agent

The Purchasing Agent's need for function-specific training is quite limited. The purchasing department personnel have the responsibility of ordering chemicals needed in the company as well as the authorized packaging for different products. Although requisitions for chemicals and packaging may originate in other departments, it is necessary that Purchasing understand basics of the Hazardous Materials Regulation.

A basic understanding of the hazard classification system is advisable when placing orders for raw materials. For instance, the use of the proper DOT terminology will assure proper identification of the materials being ordered as well as when it is received at your dock.

It is recommended that at least one person in the Purchasing Department be given instructions covering the different hazard classes with emphasis on those most commonly encountered in your organization. In addition, a basic understanding of the Hazardous Materials Table (§172.101), with emphasis on Column 2 — Proper Shipping Names, Column 3 — Hazard Classification, Column 4 — Identification Numbers, Column 5 — Packing Groups, and Column 8 — Packaging Authorization.

Finally, a basic understanding of the different types of packagings which may be authorized and the specifications for such packagings is recommended for at least one person having purchasing function responsibility. Special attention should be given to Part 178 Subpart L — Non-bulk Performance-oriented packaging (POP) Standards, particularly the required manufacturer's marking code for packagings.

Although the responsibility for ordering raw materials and authorized packaging may rest with others in the organization, because of the critical nature of purchasing, it is desirable to have an understanding of the areas of the regulations as a double check.

Clerical Personnel

Clerical Personnel may or may not have hazmat employee responsibilities. In some instances all of the information needed on a shipping paper or purchase order may be stored on the company's computer and the clerical staff is instructed exactly what to call up and insert on the form. However, even in such instances it may be desirable from the company's standpoint to train such personnel sufficiently as to be able to recognize what constitutes a proper entry. In other situations, a member of the clerical staff may be assigned the responsibility for the preparation of the document in accordance with the regulations, which will require a much greater degree of regulatory knowledge. In either instance, hazmat function-specific training is either recommended or necessary.

As in many instances, you may feel that function-specific training is not an absolute necessity, but the better the clerical staff understands what is required is a plus for overall company compliance with the regulations.

Shipping Clerk

The Shipping Clerk is a very important cog in the company's overall compliance with the hazmat regulations. In many organizations the shipping-receiving function requires an almost complete understanding of the requirements for hazardous materials transportation.

Within the shipping-receiving job function, personnel must be aware of the different hazardous material and their hazard(s). How to handle each hazard class of materials including proper forklift operation. What must be on a properly prepared hazardous materials shipping paper. What marking and labeling is required on each package. How the information on the shipping paper and package should compare. Basic emergency response actions. Loading and storage requirements, including proper segregation. And, the placarding requirements, not only which placards are required but who is responsible for providing the placards and who is responsible for the actual placarding of the container, motor vehicle or railcar.

In some organizations it may be part of the shipping-receiving function for personnel to move hazardous materials to and from storage areas. When this is the case, such personnel must also have an understanding of compatibility and what can be stored next to what — segregation in storage.

The person with all of the responsibilities mentioned, should have a good working understanding of and have day to day access to the regulations.

Note: Again as a reminder, an "Audit" section is included following the training discussion which is designed to assist the hazmat employer in determining just what training is needed for each hazmat employee.

Safety Training

The hazmat employee, defined as a person who is employed by a hazmat employer and who in the course of employment directly affects hazardous material safety, must receive safety training as follows:

(1) Emergency response information required by Subpart G of Part 172.

(2) Measures to protect the employee from the hazards of the materials to which they may be exposed, as well as specific measures the employer has implemented to protect employees from exposure.

(3) Methods and procedures for avoiding accidents, such as the proper handling of packages of hazardous materials.

A hazmat employee who repairs, modifies, reconditions, or tests packagings as qualified for use in the transportation of hazardous materials, and who does not perform any other function subject to the requirements of the hazardous materials regulations, is not subject to the safety training requirements.

Emergency Response

Each employee directly involved in the transportation cycle must be given a basic understanding of how to use emergency response information required by Subpart G of Part 172. This could include when the information is required, what information is required, and what to do with the information. This does not mean that every employee will have primary emergency response responsibility. That responsibility is reserved for those whose job function is or includes emergency response and who have had specialized training to carry out that function.

Employee Protection

This portion of the training is especially important to those hazmat employees directly involved in working with or handling the hazardous materials. It is not just working with and handling hazardous materials safely, but knowing what protective measures are available, as well as how and when to use them.

Although it is important to train those directly involved with hazardous materials, all hazmat employees should be aware of the protective measures available as well as how and when to use them.

Training should cover the availability and proper use of protective clothing, goggles, gloves, breathing apparatus, and any other protective measure furnished by the company. Also, hazmat employees must be made aware of the location of first aid and eye wash stations, emergency showers, etc. and how to use each.

Hazardous Materials Handling

Finally, the proper handling of hazardous materials and the methods and procedures the company has established for the avoidance of accidents is another area of training. This might include the proper precautions in the filling of packagings, and transporting HM packages to storage. The storage of HM packagings should stress such things as the proper segregation of materials having different hazards, and whether packages can be stored one above the other.

Note: As stated in paragraph 172.704(b), training conducted to comply with the Hazard Communication programs of OSHA and EPA which cover training required under these regulations need not be duplicated.

Driver Training

A driver of any motor vehicle transporting hazardous materials must receive training that covers “General Awareness/Familiarization”, “Safety”, and “Function Specific”. In addition, the driver must receive training on the safe operation of the motor vehicle that will be transporting hazardous materials (Section 177.816).

The driver must receive thorough training in the applicable requirements of 49 CFR Parts 390-397, Federal Motor Carrier Safety Regulation (FMCSR), and the procedures necessary for the safe operation of the motor vehicle.

Driver training must include the following:

(1) Pre-trip safety inspection;

(2) Use of vehicle controls and equipment, including operation of emergency equipment;

(3) Operation of vehicle, including turning, backing, braking, parking, handling, and vehicle characteristics including those that affect vehicle stability, such as effects of braking and curves, effects of speed on vehicle control, dangers associated with maneuvering through curves, dangers associated with weather or road conditions that a driver may experience (e.g., blizzards, mountainous terrain, high winds), and high center of gravity;

(4) Procedures for maneuvering tunnels, bridges, and railroad crossings;

(5) Requirements pertaining to attendance of vehicles, parking, smoking, routing, and incident reporting; and

(6) Loading and unloading of materials, including—

   (a) Compatibility and segregation of cargo in a mixed load;

   (b) Package handling methods; and

   (c) Load securement.

Specialized training for cargo tanks and portable tanks

In addition to the above driver training requirements, each person who operates a cargo tank or a vehicle with a portable tank with a capacity of 1,000 gallons or more, must receive training applicable to the requirements found in the hazardous materials regulations and have the appropriate state-issued commercial driver's license required by 49 CFR Part 383.

Specialized training shall include the following:

(1) Operation of emergency control features of the cargo tank or portable tank;

(2) Special vehicle handling characteristics, including: high center of gravity, fluid load subject to surge, effects of fluid-load surge on braking, characteristic differences in stability among baffled, unbaffled, and multi-compartmented tanks; and effects of partial loads on vehicle stability;

(3) Loading and unloading procedures;

(4) The properties and hazards of the material transported; and

(5) Retest and inspection requirements for cargo tanks.

The driver training requirements may be satisfied by compliance with the current requirements for a Commercial Driver's License (CDL) with a tank vehicle or hazardous materials endorsement.

Recordkeeping

A very important part of the training process is the documentation that the training, testing, and certification has been conducted. In most cases, this will be the only proof that the employer has to prove to an enforcement officer that the training, testing, and certification was conducted and to the extent required by the regulations.

The hazmat employer must create and retain a record of current training, inclusive of the preceding three years, for each hazmat employee. This training record must be maintained for as long as that employee is employed by the employer as a hazmat employee and for 90 days thereafter.

The record shall include:

(1) The hazmat employee's name;

(2) The most recent training completion date of the hazmat employee's training;

(3) A description, copy, or the location of the training materials used to meet the requirements in paragraph (a) of this section;

(4) The name and address of the person providing the training; and

(5) Certification that the hazmat employee has been trained and tested, as required by this subpart.

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AUDITS

Reserved

Hazmat Training Audit

Each hazmat employer needs to have a plan for meeting the Hazmat Training Requirements for each hazmat employee. Remember, individual training requirements are based on the hazmat employee's "need to know" in order to carry out his/her duties "directly affecting hazardous materials safety." The following "checklists" are provided to assist hazmat employers in evaluating the training needs of individual employees in each of the basic categories — General Awareness/Familiarization, Function Specific, Safety, and the special Driver Training Requirements.

Refer to the SECURITY tab in this manual to help evaluate training needs associated with that basic category.

The checklists are provided as general "guidelines" to hazmat employee training requirements and are not intended to be all-inclusive. One of the difficult decisions is determining who needs to be trained and what detail the training must encompass. To illustrate, is there a need for top management to receive hazmat training and if so how much? The answer to the first part is "Yes!" since ultimate responsibility for compliance in an organization involved in hazardous materials transportation rests with top management. The answer to the second part is, in most cases, they must have a sufficient understanding of the requirements to direct and mandate hazmat employee compliance with the Hazardous Materials Regulations. In most instances, the "General Awareness/Familiarization" requirement covers the needs for top management. Remember, not only must employees be trained but testing and recordkeeping are required.

General Awareness/Familiarization Audit

ALL EMPLOYEES who in the course of their employment "...directly affect hazardous materials transportation safety" must be given a general overall understanding of the Hazardous Materials Regulations (HMR). The following is a list of subjects you may want to touch upon during this training. This does not need to be a long drawn out discussion but rather enough to give the employee a very basic understanding of the Hazardous Materials Regulations.

- ☐ The purpose of the Hazardous Materials Regulations.
- ☐ Who is subject to the Hazardous Materials Regulations.
- ☐ A brief coverage of some basic definitions, i.e., hazardous materials, bulk and non-bulk, proper shipping name, packaging groups, etc. with reference to §171.8 as the source for other definitions.
- ☐ A brief discussion and explanation of hazard classes and divisions.
- ☐ A brief discussion and explanation of the part the Hazardous Materials Table (§172.101) plays in the overall scope of the regulations.
- ☐ A brief discussion of properly prepared shipping papers.
- ☐ A brief discussion of shipper package marking and labeling.
- ☐ A brief discussion of Part 173 and its function in the regulations.
- ☐ A brief discussion of requirements specific to individual modes of transportation (Parts 174, 175, 176, and 177).
- ☐ A brief discussion of packaging — "performance oriented packaging," cylinders, portable tanks, cargo tanks, tank cars, etc. (Parts 178 & 179).
- ☐ Mention of the qualification and maintenance of packagings (Part 180).

This appears to be a very extensive listing of subjects, but it is meant only as a guide to the areas to be covered. Covering the subjects in this list will give the hazmat employee a general understanding of the types of things covered by the Hazardous Materials Regulations. Don't over do this part of the training, it's an overview of the requirements. Leave the details to the function specific, safety, and driver training portions of your program.

Function-specifi audit

This is the area in which training must cover all aspects of the HMR requirements which are "specificall applicable to the functions the hazmat employee performs." Unlike General Awareness/Familiarization which is the same for all hazmat employees, Function-Specifi training must be "tailor made" for each job function. This ensures that each hazmat employee has a working understanding of those portions of the regulation in which he/she directly affects the company's compliance with the Hazardous Materials Regulations. The employee MUST know and understand those portions of the HMR for which he/she is responsible for.

The following checklist provides the Hazmat Employer with the means to select the topics and the detail to be covered for each individual Hazmat Employee or job function.

(1) **Hazard Classificatio (Part 173 Subparts A, C, D, and G)**

- ❑ Class 1 & Divisions (Explosives), i.e., 1.1, 1.2, 1.3, 1.4, 1.5 & 1.6 (§173.50). Class 1 Classificatio codes and Compatibility groups (§173.52)
- ❑ Class 2 & Divisions (Gases), i.e, 2.1, 2.2, & 2.3 (§173.115). Hazard Zones (173.116). Exceptions (§173.307).
- ❑ Class 3 & Divisions (Flammable liquids) (173.120). Packing Groups (§173.121). Exceptions, including reclassificatio of "Combustibles" (§173.150).
- ❑ Class 4 & Divisions (Flammable Solids)(§173.124). Packing Groups (§173.125). Exceptions (§173.151).
- ❑ Class 5, Division 5.1 (Oxidizers) (§173.127). Packing Groups (§173.127). Exceptions (§173.152).
- ❑ Class 5, Division 5.2 (Organic Peroxides) (§173.128). Packing Groups (§173.129). Exceptions (§173.152).
- ❑ Class 6, Division 6.1 (Poisons)(§173.132). Packing Groups (§173.133). Hazard Zones (§173.133). Exceptions (§173.153).
- ❑ Class 6, Division 6.2 (Infectious Substances)(§173.134).
- ❑ Class 7 (Radioactive) (§173.403).
- ❑ Class 8 (Corrosives) (§173.136). Packing Groups (§173.137). Exceptions (§173.154).
- ❑ Class 9 (Miscellaneous) (§173.140), Packing Groups (§173.141). Exceptions (§173.155).
- ❑ ORM-D (Other Regulated Materials)(§173.144). Packing Groups (§173.145). Exceptions (§173.156).
- ❑ Classificatio of a material having more than one hazard (§173.2a).

(2) **Hazardous Materials Table and Special Provisions (Part 172, Subpart B)**

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- ❑ Column 2 — Proper Shipping Name
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- ❑ Column 4 — Identificatio Number
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(3) **Shipping Papers (Part 172 Subpart C)**

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(4) **Marking (Product Package) (Part 172 Subpart D)**

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(5) **Labeling (Part 172 Subpart E)**

- ❑ General labeling requirements (§172.400)
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(6) **Placarding (Part 172 Subpart F)**

- ❑ Applicability of placarding requirements (§172.500)
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(7) **Emergency Response Information (Part 172 Subpart G)**

- ❑ Applicability and general requirements (§172.600)
- ❑ Emergency response information (§172.602)
- ❑ Emergency response telephone number (§172.604)
- ❑ Carrier information contact (§172.606)

(8) **Training (Part 172 Subpart H)**

- ❑ Purpose and scope (§172.700)
- ❑ Federal/State relationship (§172.701)
- ❑ Applicability and responsibility for training (§172.702)
- ❑ Training requirements (§172.704)

(9) **Packaging selection (Part 173, and §172.101 columns 8A, 8B, & 8C)**

- ❑ Shipper's responsibility (§173.22)
- ❑ Use of packagings authorized under special permits (§173.22a)
- ❑ General requirements for packagings and packages (§173.24)
- ❑ Additional general requirements for non-bulk packagings and packages (§173.24a)
- ❑ Additional general requirements for bulk packagings (§173.24b)
- ❑ Authorized packages and overpacks (§173.25)
- ❑ General requirements for transportation by aircraft (§173.27)
- ❑ Reuse, reconditioning and remanufacturing of packagings (§173.28)
- ❑ Empty packagings (§173.29)
- ❑ Use of tank cars (§173.31)
- ❑ Requirements for the use of portable tanks (§173.32)
- ❑ Hazardous materials in cargo tank vehicles (§173.33)
- ❑ Hazardous materials in intermediate bulk containers (IBCs) (§173.35)
- ❑ Hazardous materials in Large Packagings (§173.36)
- ❑ General packaging requirements for toxic materials packaged in cylinders (§173.40)

- ❑ Packaging Exceptions [Part 173 sections referenced in column 8A of the Hazardous Materials Table (§172.101)]
- ❑ Non-bulk packaging [Part 173 sections referenced in column 8B of the Hazardous Materials Table (§172.101)]
- ❑ Bulk packaging [Part 173 sections referenced in column 8C of the Hazardous Materials Table (§172.101)]

(10) **Specification for Packagings (Part 178)**

> **Note:** Parts 178 and 179 prescribe the criteria and testing specifica tions for non bulk packagings, containers, cargo tanks, and tank cars. In addition to packaging manufacturers, any person who performs a function, such as, specifying or selecting packagings to be used for the transportation of hazardous materials must have an understanding of the contents of these Parts.

- ❑ Marking of Packagings, General (§178.3)
- ❑ Specification for Inside Containers and Linings (Part 178 Subpart B)
- ❑ Specification for Cylinders (Part 178 Subpart C)
- ❑ Specification for Portable Tanks (Part 178 Subpart H)
- ❑ Specification for Containers for Motor Vehicle Transportation (Part 178 Subpart J)
- ❑ Specification for Packagings for Class 7 (Radioactive) Materials (Part 178 Subpart K)
- ❑ Non-bulk Performance-oriented Packaging Standards (Part 178 Subpart L)
- ❑ Testing of Non-bulk Packagings and Packages (Part 178 Subpart M)
- ❑ Intermediate Bulk Container Performance-Oriented Standards (Part 178 Subpart N)
- ❑ Testing of Intermediate Bulk Containers (Part 178 Subpart O)
- ❑ Large Packaging Standards (Part 178 Subpart P)
- ❑ Testing of Large Packagings Part 178 Subpart Q)

(11) **Specification for Tank Cars (Part 179)**

- ❑ General Design Requirements (Part 179 Subpart B)

- ❑ Specification for Pressure Tank Car Tanks (Classes DOT-105, 109, 112, 114 and 120) (Part 179 Subpart C)
- ❑ Specification for Nonpressure Tank Car Tanks (Classes DOT-111AW, and 115AW) (Part 179 Subpart D)
- ❑ Specification for Multi-Unit Tank Car Tanks (Classes DOT-106A and 110AW) (Part 179 Subpart E)
- ❑ Specification for Cryogenic Liquid Tank Car Tanks and Seamless SteelTanks (Classes DOT-113 and 107A) (Part 179 Subpart F)

(12) **Continuing Qualificatio and Maintenance of Packagings (Part 180)**

- ❑ General (Part 180 Subpart A)
- ❑ Qualification Maintenance and Use of Cylinders (Part 180 Subpart C)
- ❑ Qualificatio and Maintenance of Intermediate Bulk Containers (Part 180 Subpart D)
- ❑ Qualificatio and Maintenance of Cargo Tanks (Part 180 Subpart E)
- ❑ Qualificatio and Maintenance of Tank Cars (Part 180 Subpart F)
- ❑ Qualifictio and Maintenance of Portable Tanks (Part 180 Subpart G)

Safety audit

Safety training shall include DOT emergency response information and measures to protect the hazmat employee from the hazards to which they may be exposed. The employee must be made aware of the measures the hazmat employer has taken to protect the employee. In addition, hazmat employees must be made aware of methods and procedures for avoiding accidents, such as the proper handling and storage of packages of hazardous materials.

- ❑ Discuss how to use the Emergency Response Information required by Subpart G of Part 172.
- ❑ Inform the hazmat employee(s) of the location where written or printed copies of the emergency response information, such as the Emergency Response Guidebook (ERG) or Materials Safety Date Sheet (MSDS) are readily available.
- ❑ Inform hazmat employee(s) of the locations of emergency eye wash, showers, etc. in the event of accidental contact with a hazardous materials.
- ❑ Inform hazmat employee(s) of the availability of protective equipment, i.e., personal protective clothing, face guards, etc., and the location where such protective equipment is available.
- ❑ Discuss established procedures for the proper handling of hazardous materials, including the use of protective equipment, the best methods to be use in trans-

porting hazardous materials from one location to another within the company, loading a transport vehicle, and storage. In the latter two instances this may include reinforcement of segregation and separation requirements for materials having different hazards.

- ❑ Discuss the procedures any hazmat employee is to follow in the event a hazardous materials incident occurs. This should include such things as securing the site, who to notify, and any initial containment steps that can be taken.
- ❑ Discuss the procedure to be followed in the event the hazmat employee(s) are directly exposed to a hazardous material. This should include procedural differences for materials having different hazard characteristics.

Driver audit

Drivers of motor vehicles transporting hazardous materials must receive training that covers “General Awareness”, “Safety”, “Function-specific” and “Security Awareness.” In-depth security training may also be required. In addition, the driver must receive training on the safe operation of a motor vehicle transporting hazardous materials. See 49 CFR 177.816.

- ❑ The driver shall receive thorough training in the Federal Motor Carrier Safety Regulation (FMCSR), 49 CFR Parts 390-397 with special emphasis on Part 397.
- ❑ The “Function-specific training for the driver must specificall include the requirements of Part 177, particularly those covering the loading, unloading, and the “Segregation Table for Hazardous Materials” (Section177.848).
- ❑ Drivers of cargo tank vehicles and vehicles transporting portable tanks must be trained in the requirements of Section177.816.

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SECURITY AWARENESS TRAINING

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Security Awareness Training Overview

A heightened sense of awareness was called for following the terrorist attacks of 9/11.

That sense of awareness has become the norm all across America. The need for increased security when handling and transporting hazardous materials is evident today more than ever.

Because of this, it is necessary to communicate to all hazmat employees that they have to be aware of potential security risks around them and the jobs they do. That is why security awareness training is so important.

Hazardous materials are essential to this country and economy. Millions of tons are transported every day to provide heat, fuel, medicine, and many other products and services few could live without. If just one of those shipments was to fall into the wrong hands, it could pose a significant threat to the security of this country and its citizens.

It is important to make sure every hazmat shipment arrives at its destination safely, and does not become a weapon of mass destruction for some terrorist act. It is not only the responsibility of the military and law enforcement agencies — it is everyone's responsibility.

A security awareness training program at any company will help to maintain everyone's heightened sense of awareness and ensure hazardous materials shipments continue to arrive at their destinations safely and securely. But, it will accomplish more than that. It will provide employees with the knowledge that they are prepared, have a heightened sense of awareness, and will not panic when something looks suspicious. They will be trained, ready, and know what to do.

The Security Awareness Training Program

The formulation of a security awareness training program for any organization will be impacted by a number of factors.

First, the program is going to have to meet the new requirements detailed in Part 172 Subpart H of the *Hazardous Materials Regulations* (HMR). Many carriers already have a hazmat training program in place for their employees. These companies already do some security training. Now, the HMR specifies what is required.

Second, keep in mind that the training program will vary, from employee to employee, depending on what a particular employee's job function is, and how that job function affects the security needs and requirements of the company in regard to the offering and transportation of hazardous materials.

Another factor that must be considered is what the company operation is. Meaning the security awareness training program that one company uses may be completely different from another. The security awareness training program a carrier develops, must be custom-tailored to meet the needs of the company and all of its hazmat employees.

The information that follows will ensure that the security training program assembled will provide any company and its hazmat employees with the needed information to complete a successful program.

What Is Required?

Effective March 25, 2003, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), established new requirements (HM-232) to enhance the security of hazardous materials transported in commerce.

New training requirements for security awareness have been added to 49 CFR Part 172.704 of the HMR. According to the regulations, each hazmat employee must receive training that provides **an awareness of security risks** associated with hazardous materials transportation, **how to recognize and respond to possible security threats**, and **methods designed to enhance transportation security**.

The training must be provided no later than the date of the first scheduled recurrent training after **March 25, 2003**, and no later than **March 24, 2006**. After **March 25, 2003**, new hazmat employees must receive the security awareness training required within 90 days after employment.

Awareness of Security Risks

How many security risks are present at a given company will depend on that company's operation and how it is involved in the hazardous materials transportation process. Some security risks may stand out and are easily spotted; other areas of vulnerability may be harder to identify.

This manual provides a hazmat transportation risk assessment that will help determine which areas are most vulnerable and require your immediate attention, as well as suggested countermeasures to enhance transport security. The assessment should be an important tool in any security training program.

Potential targets and security threats can be found, not only at a company's location, but in the community and along the routes drivers travel each and every day. Having a good knowledge of each hazmat employee's job functions will play an important part in putting together a successful security training program. Their involvement will make the training program more effective, too.

The first step to take in the formation of a security awareness training program is completing a vulnerability assessment to help determine potential targets and security threats. Be sure to utilize the hazmat transportation risk assessment provided.

Some employees may have many of the same security risks associated with what they do. Others, depending on their job function, may face potential threats or see potential targets that are unique when compared to other employees. It is the organization's responsibility to tailor a training program accordingly. The assessment will help identify risks, prioritize them, and complete a security training program.

Motor carriers will want to demonstrate the need for increased security to all hazmat employees by detailing examples of terrorist acts, whether or not they involve hazardous materials. This is necessary to help convey the importance of everyone involved having a heightened sense of awareness, and being able to identify potential targets and security threats, and what security risks may be present.

Recognizing and Responding to Possible Security Threats

Potential targets or threats outside a company could include the use of:

- quantities of gasoline or other flammable materials or gases;
- quantities of poisons or materials poisonous by inhalation;
- combinations of materials that, when mixed, become potential deadly weapons; and
- explosives.

Depending on the company's location, the hazardous materials previously mentioned could be carried by:

- train;
- plane;
- vessel (boat); or
- truck/van/motor vehicle.

Potential targets and threats could also include geographical locations, such as:

- historical monuments and historical interest locations;
- public, state, and government/federal buildings or sites;
- water towers and reservoirs;
- gas stations, refineries, and industrial locations;

- churches and religious sites;
- hospitals; and
- transportation hubs such as train stations, bus terminals, and airports.

It is your responsibility to determine which potential targets present the most vulnerable threats and potential security risks, outside your company, as well as on company property.

Potential targets or threats at your company might include:

- access points/terminal gates or entrances;
- perimeters and fenced-in areas;
- doorways and windows;
- communication areas;
- limited access and restricted areas;
- physical facilities and/or equipment; and
- vehicles and inventory that could be used as weapons.

The hazardous materials security checklists will provide additional information and insight in identifying potential targets and threats, as well as actions to take to make sure all areas are safe and secure.

Ask employees what potential targets or threats they perceive and how large a security risk each may present. Employee involvement will help each employee identify with what role he or she has in the hazardous materials transportation process at the company, and why it is important to have a heightened sense of awareness.

Security Risks on the Road

You will want additional time to prepare driver security awareness training. Drivers are the eyes and ears of the company, and can have an important role with local enforcement efforts whatever their location out on the road. It is of utmost importance that they are constantly aware of potential threats and security risks that might exist on their route.

Drivers can face numerous outside threats. Terrorist activities directed at them could include:

- cargo theft;
- cargo contamination;

- hijacking;
- kidnapping; and
- bodily harm or death.

In addition to geographical locations mentioned earlier, drivers must also be aware of:

- tunnels and bridges;
- railroad tracks and switching areas;
- lakes, rivers and dams;
- high density population areas; and
- virtually anywhere hazardous materials might be detonated or ignited.

Drivers also have to be on the lookout for suspicious activities and behavior associated with:

- the planned route;
- maintaining visual contact with the load;
- rest stops;
- truck stops;
- traffic lights/unplanned stops;
- unidentified people posing as authorities;
- hijackings;
- vehicles stopped along the road; and
- unlit areas.

Carriers must be supportive of their drivers. Carriers should consider:

- establishing procedures for tracking shipments;
- check points and check-in times along the route;
- providing a 24-hour number for drivers to call;
- keeping actual time on the road to a minimum;
- installing locks and alarms.

The sample en route security plan provides en route driver security operating guidelines and procedures that are shipper-specific and carrier-specific. Make sure to communicate effectively with drivers.

Suspicious Activity

What constitutes suspicious activity? How is it different from everyday activities? Can anyone draw a picture of what a potential terrorist might look like? Could he or she be someone familar at work or on the road?

Training hazmat employees how to spot a suspicious activity or suspicious behavior may seem like an impossible task. Each employee must understand it is more important to report a suspicious activity or behavior than to have a potential target or threat become a reality. Don't ignore suspicious activity or behavior.

"Beauty is in the eye of the beholder." A parallel to that popular phrase can be drawn to identifying a suspicious activity or behavior. There is no easy way to identify such activities or behaviors other than to keep an eye out for anything that might seem unusual or out-of-the-ordinary.

When employees have a heightened sense of awareness and are aware of potential targets and threats around them, and what security risks may be present, suspicious activity and behavior will be easier to identify in their work environments. That's why the security awareness training is so important.

What to Look for

Suspicious activity or behavior will raise a red flag to the well-trained employee possessing a heightened sense of awareness. He or she knows when something is wrong or unusual in the workplace or out on the road, and will do what is necessary to communicate the activity or behavior to the necessary people/authorities.

Employees will want to closely watch and possibly report:

- anyone who is unauthorized trying to access equipment or areas which are off-limits;
- anyone who appears to be extremely nervous, agitated, or appears to be hiding something;
- disgruntled employees;
- anyone asking sensitive questions or requesting information when they are unauthorized to do so;
- anyone without proper identification;
- anyone possessing a weapon; and
- unfamiliar vehicles parked where they don't belong.

This is another time when employee discussion can be very important. Not only may employees present additional areas of concern, it will also help to improve their awareness of the environment around them and security risks that may need to be identified.

Refer to the sample personnel security plan provided to access additional training ideas and reporting procedures for suspicious activity. A suspicious activity incident report is included, as well as an employee sign-off sheet.

Enhancing Transport Security

Enhancing transport security requires the cooperation of everyone involved with the hazardous materials transportation process. What each hazmat employee does to ensure that process is safe and secure is important to the company, the community, and the country. It's a responsibility that cannot be taken too seriously.

Enhancing transport security goes hand-in-hand with reducing security risks. The hazmat transportation risk assessment in this manual is just one tool that will aid a company's program to reduce security risk and enhance transport security. It provides important information to reduce risk. It not only helps identify and analyze risks, but provides information on risk countermeasures. It focuses on all hazmat employees, with special emphasis on drivers and driver applicants.

Regardless of whether a company is required to develop a security plan, review the materials in this manual to develop such a plan. The guidelines and procedures will address many of the security issues your hazmat employees face at your company.

Choose which areas to concentrate on to reduce risks and enhance security. Methods to enhance transport security focus on:

- personnel security
- facility security
- en route security

The guidelines and procedures communicated in the various segments provide the means and methods to protect employees, property, and the general public during the hazmat transportation process.

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SECURITY PLAN

Reserved

Security Overview

The provided security plan is designed to meet or exceed the hazardous materials security plan requirements of Part 172 Subpart I - Safety and Security Plans, as well as enhance the overall security effort of any organization involved in the transportation of hazardous materials in commerce.

This comprehensive and detailed security plan template is designed to serve as a foundation to either develop or revise any shipper's or carrier's current hazardous materials security program.

Each shipper and motor carrier operation is different and has its own unique characteristics. Because of this, there is no single, all-inclusive security plan that will prevent all losses and eliminate all risk. It is suggested that companies use the portions of the provided plan that apply to their specific operation.

Security Plans

Purpose: The plans provided address the security needs and requirements for the offering and transportation of hazardous materials. These plans are written and designed to increase overall company safety and security through:

- Developing and prioritizing overall corporate security goals based on the identification of specific security risks and threats;
- Analyzing the current system operation and the likelihood (potential) of a given specific risk or threat actually occurring;
- Developing internal risk countermeasures (security plans) that:
  a. Ensure the security of all hazardous materials offered for transport or transported;
  b. Protect a company's equipment, facilities, and personnel by reducing or eliminating the likelihood of a risk or threat opportunity from occurring; and
  c. Identify all control points and implement appropriate security measures for them that will help reduce or eliminate risk.
- Communicating the safety and security plans (and their related procedures) effectively to all employees;
- Verifying the implementation of the security plans and measuring/monitoring employee adherence to them; and
- Evaluating the effectiveness of the security plans and making appropriate adjustments when necessary.

Applicability: Each person who offers for transportation in commerce or transports in commerce one or more of the following hazardous materials must develop and adhere to a transportation security plan for hazardous materials that conforms to the hazmat requirements. "Large bulk quantity" refers to a quantity greater than 6,614 pounds for solids or 792 gallons for liquids and gases in a single packaging such as a cargo tank motor vehicle, portable tank, tank car, or other bulk container.

- Any quantity of a Division 1.1, 1.2, or 1.3 material;

- A quantity of a Division 1.4, 1.5, or 1.6 material requiring placarding in accordance with 49 CFR 172 Subpart F;
- A large bulk quantity of Division 2.1 material;
- A large bulk quantity of Division 2.2 material with a subsidiary hazard of 5.1;
- Any quantity of a material poisonous by inhalation, as defined in 49 CFR 171.8;
- A large bulk quantity of a Class 3 material meeting the criteria for Packing Group I or II;
- A quantity of a desensitized explosives meeting the definition of a Division 4.1 or Class 3 material requiring placarding in accordance with 49 CFR 172 Subpart F;
- A large bulk quantity of a Division 4.2 material meeting the criteria for Packing Group I or II;
- A quantity of a Division 4.3 material requiring placarding in accordance with 49 CFR 172 Subpart F;
- A large bulk quantity of a Division 5.1 material in Packing Groups I and II; perchlorates; or ammonium nitrate, ammonium nitrate fertilizers, or ammonium nitrate emulsions, suspensions, or gels;
- Any quantity of organic peroxide, Type B, liquid or solid, temperature controlled;
- A large bulk quantity of Division 6.1 material (for a material poisonous by inhalation;
- A select agent or toxin regulated by the Centers for Disease Control and Prevention under 42 CFR Part 73 or the United States Department of Agriculture under 9 CFR Part 121;
- A quantity of uranium hexafluoride requiring placarding under 49 CFR 172.505(b);
- International Atomic Energy Agency (IAEA) Code of Conduct Category 1 and 2 materials including Highway Route Controlled quantities as defined in 49 CFR 173.403 or known as radionuclides in forms listed as RAM-QC by the Nuclear Regulatory Commission;
- A large bulk quantity of Class 8 material meeting the criteria for Packing Group I.

Responsibilities: In order for security plans to be as effective as possible, it is important to define individual and corporate responsibilities with regard to plan development, implementation, and compliance:

- **Top management —** Is responsible for ensuring that the company's security plans and procedures are developed, issued, understood, and clearly communicated to all employees. Top management is responsible for making certain that all departments and personnel understand the new or revised security procedures, and that they will be adhered to.

- **Managers —** Are responsible for identifying the company's security needs and goals. Managers are responsible for the overall implementation process of the security plans and for monitoring compliance to same.
- **Supervisors —** Are responsible for consistent application, enforcement, and initiating corrective action (when necessary) for deviation from, or nonconformance to, the procedures of the security plans. Most importantly, supervisors are responsible for giving timely and accurate feedback regarding the overall effectiveness of the security plans.
- **Employees —** Are responsible for having the written security plans and procedures become a part of their daily work activities. Anything other than performing duties and activities according to established security procedure will be considered unacceptable.

Identifying SSI

Effective **June 17, 2004**, the marking, or identifying of security sensitive information (SSI) is now required for hazmat security plans.

The new requirement will not affect the plan or its formulations; it will simply identify the security plan as SSI.

49 CFR 15.13 outlines what markings must be placed on SSI. A hazmat security plan must be marked:

- On the front and back cover, including a binder cover or folder;
- Any title page; and
- Each page of the document.

The protective marking - *SENSITIVE SECURITY INFORMATION* - must be placed conspicuously on the top; the distribution limitation statement must be on the bottom.

The distribution limitation statement must read as follows:

WARNING: This record contains Sensitive Security Information that is controlled under 49 CFR parts 15 and 1520. No part of this record may be disclosed to persons without a "need to know", as defined in 49 CFR parts 15 and 1520, except with the written permission of the Administrator of the Transportation Security Administration or the Secretary of Transportation. Unauthorized release may result in civil penalty or other action. For U.S. government agencies, public disclosure is governed by 5 U.S.C. 552 and 49 CFR parts 15 and 1520.

Non-paper SSI, including motion picture films, videotape recordings, audio recording, and electronic and magnetic records, must clearly and conspicuously be marked with the protective marking and the distribution limitation statement such that the viewer or listener is reasonably likely to see or hear them when obtaining access to the contents of the record.

Risk Assessment Tool

The security plan must include an assessment of possible transportation security risks for shipments of hazardous materials (as listed in §172.800). Assessing risk

requires the management of an organization, representing all departments and functions, to take a critical look at the entire operation such as:

- How daily tasks and activities are performed;
- How and where important/sensitive records and documents are stored;
- How drivers and other employees are hired, screened, and managed; and
- What is the security risk to shipments of hazardous materials?

To assist in the risk identification, analysis, and security plan development process, the following sample assessment tool is provided. Use it as a starting point (a foundation for the security plan development) to assess what risks currently exist and the likelihood of them occurring.

Risk Assessment Questions:

1. What specific hazardous materials (and in what quantities) are stored, handled, and/or transported by the organization?
2. Of the hazardous materials on site, which ones have the potential of being used in or as weapons of mass destruction or targets of opportunity?
3. What daily activities, processes, and procedures are involved in storing and preparing for transport the hazardous materials handled by the company?
4. Who has access to hazardous materials stored at, or transported by, the company?
5. Is access to hazardous materials controlled and limited?
6. Are all employees assigned to handle, prepare for transport, or transport hazardous materials adequately screened for security?
7. Are access/entry points to hazardous materials adequately secured, controlled, and/or monitored to prevent unauthorized access?
8. Have en route hazardous materials security procedures been established? Are they being adhered to by all drivers?
9. What operational security procedures and activities are currently in place?
    a. “What are we doing now from a security perspective?”
    b. “What can/should we do differently?”
    c. “What could go wrong/where are we most vulnerable?”

Hazmat Transportation Risk Assessment

Sensitive Security Information

Hazmat Transportation Risk Assessment

Risk Area	Risk Identification and Analysis (likelihood of occurring)				Risk Countermeasure (plan development item)
	Not at all likely	Some-what likely	Likely	Very likely	**[____Include only those below that apply. Modify or delete those that do not reflect your operation. Add additional topics that are unique to your motor carrier.____]**
Hazmat theft risks:					
At company facility	☐	☐	☐	☐	K Develop a site-specific security assessment and security plan for each location/terminal of the organization, unique to its layout, design, location, etc. K Develop procedures to segregate hazmat cargo in a separate and secure area that limits and controls employee access. K Communicate security procedures regarding restricted hazmat areas and sensitive/confidential records with all employees. K Conduct thorough background investigations (including criminal conviction history) on all current and prospective employees who will have access to hazardous materials or related paperwork. K Develop professional working relationship with local law enforcement agencies, including regional FBI office(s). K Have law enforcement conduct a facility risk assessment. K Conduct frequent, unscheduled facility security audits and inspections. K Periodically inventory the types and quantities of hazardous materials stored on site in order to recognize if a theft has occurred. K Put policies and procedures in place (unique to the operation and commodity) that reflect changes in the DHS National Terrorism Advisory System, industry alerts, maritime MARSEC levels (if applicable), and trends/political climates. K **[____Enter additional topics not listed____]**
En route	☐	☐	☐	☐	K Develop and implement driver cargo security procedures and general driver security awareness training. K Develop effective and timely cargo theft reporting procedures. K Explore terminal-to-truck communication options. K Provide "worst case scenario" vehicle hijacking survival training to all drivers. K Develop professional working relationship with local law enforcement agencies, including regional state patrol and FBI office(s). K Review the safety rating, assessment, compliance audit and credit history, and ask for all security-related procedures before using any carrier for the purposes of transporting hazardous materials. K Verify that the prospective carrier has adequate security

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En route (cont.)					hiring and screening procedures in place. K Verify the identity of the motor carrier and/or driver prior to loading any hazardous material. K Develop communication procedures (terminal-to-truck), alternate routes, and other policies and procedures in the event the DHS National Terrorism Advisory System is changed, industry alerts are posted, maritime MARSEC level is raised (if applicable), or trends/political climates change. K **[____Enter additional topics not listed____]**
Personnel security risks:					
All employees	☐	☐	☐	☐	K Identify, by job title of the senior management official, who is responsible for overall development and implementation of the security plan. K Identify security duties for each position or department that is responsible for implementing the plan or a portion of the plan and the process of notifying employees when specific elements of the security plan must be implemented. K Create thorough job descriptions, organizational charts, and reporting structures for decision-making. Determine who: creates and maintains policies and procedures; reports to whom about security concerns/incidents; and has access to which information. Generate this list for each location and relationships between locations and the home office. K Conduct thorough background investigations (including criminal conviction history) of all prospective and (periodically on) current employees who will have access to hazardous materials and/or related records and information. K Develop and communicate corporate security procedures regarding restricted hazmat areas and related records and information with all employees. K Include security training in company security objectives, organizational security structure, specific security procedures, specific security duties and responsibilities for each employee, and specific actions to be taken by each employee in the event of a security breach. K Conduct suspicious activity awareness training for all employees once every 3 years. K Conduct in-depth security training required under §172.704(a)(5) at least once every three years, or within 90 days of implementation when the security plan for which training is required is revised during the three-year recurrent training cycle. K Conduct regular security training meetings for all employees. K Review current trends and threat conditions. K Train employees on their roles, communication, and other details associated with a change in the DHS National Terrorism Advisory System or maritime/MARSEC security threat levels. K **[____Enter additional topics not listed____]**

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Driver applicants	☐	☐	☐	☐	K Develop and maintain adequate driver qualification and screening hiring standards for new drivers. K Conduct thorough background investigations (including criminal conviction history) of all prospective drivers who will transport hazardous materials. K Verify all information provided by driver applicants (as listed on the original driver's application). K **[____Enter additional topics not listed____]**
Existing drivers	☐	☐	☐	☐	K Ensure all drivers receive adequate personal safety and cargo security training. K Develop and implement procedures that ensure the security and confidentiality of all driver-related files and documents including DQ files, Driver Investigation History files, D&A files, personnel records, records of duty status, payroll records, driver settlement statements, etc. K Ensure all drivers designated to transport hazardous materials remain qualified to operate a commercial motor vehicle. K Conduct periodic and random criminal investigations on existing drivers. K Explore terminal-to-truck communication options. K Ensure drivers are trained in communication procedures (terminal-to-truck), alternate routes, and other policies and procedures in the event the DHS Advisory System is changed, industry alerts are posted, maritime MARSEC level (if applicable) is raised, or trends/political climates change. K **[____Enter additional topics not listed____]**
Leased drivers	☐	☐	☐	☐	K Conduct a thorough background investigation on all leasing companies used including a credit check and review of client references. K Contact leasing company and review and verify the DQ files of all drivers to be used. K Ensure that all leased drivers designated to transport hazardous materials remain qualified to operating a commercial motor vehicle.
Unauthorized access security risks:					
Operations	☐	☐	☐	☐	K Limit and control all facility access points, and especially those leading to hazardous materials and critical/sensitive records storage areas. K Establish procedures that prohibit unauthorized access into physical facilities, and especially areas that contain hazardous materials. K Conduct frequent and unscheduled security audits and inspections of all areas of the operation. K Establish partnerships with local law enforcement officials, emergency responders, and other public safety agencies. K Have local law enforcement conduct a facility risk assessment. K Develop a written policy that prohibits any employee from

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Operations (cont.)					sharing or leaving unattended sensitive or critical information. – Develop a written email and electronic documents policy that defines exactly what information can and cannot be sent out electronically. – Require all employees to display identification cards or badges when on company premises. – Maintain records of all security-related incidents to help identify trends and potential vulnerabilities. – Report all suspicious activity or individuals to local law enforcement officials or the FBI. – Complete a site-specific security assessment and security plan for each location of the organization, unique to its layout, design, location, etc. – Put policies and procedures in place (unique to the operation and commodity) that reflect changes in the DHS National Terrorism Advisory System, industry alerts, maritime MARSEC level (if applicable), and trends/political climates. – Create policies and procedures on distributing information related to hazmat shipments, including information to business partners. – [___Enter additional topics not listed]
Visitors, vendors, and suppliers	☐	☐	☐	☐	– Restrict general access to all company facilities to a single point of entry. – Require all visitors to identify themselves with a photo ID and to register (sign in). – Upgrade security procedures for all vendors and suppliers to the company. – Restrict access when the DHS National Terrorism Advisory System changes, industry alerts are issued, maritime MARSEC level is raised (if applicable), or trends/political climates change. These controls should be unique to the operation, commodity, and type of vendor or visitor. – [____Enter additional topics not listed]
Yard security	☐	☐	☐	☐	– Secure hazardous materials in locked buildings or fenced storage areas. Implement a sign-in/out system for access to these areas. – Secure all valves, manways, and other fixtures on transportation equipment when not in use (tank-trailer operations). Lock and seal all trailers when not in use (all other motor carrier operations). – Use tamper-resistant or tamper-evident seals and heavy duty locks on all cargo trailers. – Ensure the yard and parking areas have adequate security lighting. – Conduct frequent security inspections of the yard that includes staged equipment. – Ensure all access points (doors and windows) are locked and secured from the inside when not in use. – Create additional yard security policies and procedures when the DHS National Terrorism Advisory System changes, industry

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Yard security (cont.)					alerts are posted, maritime MARSEC level raises (if applicable), or trends/political climates change. – [____Enter additional topics not listed __]
En route security risks:					
Hazmat drivers	☐	☐	☐	☐	– Train driver on proper security pre-trip inspection procedures, including looking for any foreign objects or materials. – Train drivers in proper cargo pick up security procedures including the need to produce photo identification to responsible shipping personnel. – Train drivers to maintain regular communication with their dispatcher/terminal. – Train drivers to look out for any suspicious activity — especially when leaving any shipper. – Train driver to never discuss any load-related information with any unauthorized or unidentified individuals outside the company including load content, pick-up and delivery schedules, and routing information. – Train drivers in security parking, stopping, and breaking procedures. – Train drivers to re-inspect their vehicle after every stop. – Train drivers on the organization's security protocols when the DHS National Terrorism Advisory System changes, industry alerts are posted, maritime MARSEC level is raised (if applicable), or trends/political climates change. – [____Enter additional topics not listed __]
Hazmat operations personnel	☐	☐	☐	☐	– Avoid assigning any hazmat load to new drivers for at least the first six months of employment. – Develop and implement en route communication/check in procedures for all hazmat drivers. – Work with customers to expedite deliveries and reduce transit/down time while drivers are en route. – Conduct frequent yard checks — especially during off-hours, and evenings and weekends. – Establish timely and standard procedures for reporting suspicious activity and cargo theft incidents. – Create even more of a stringent "need-to-know" scope than usual in reference to hazmat-related information when the DHS National Terrorism Advisory System changes, industry alerts are posted, maritime MARSEC level is raised (if applicable), or trends/political climates change. – [____Enter additional topics not listed __]

Assessment Completed by: _____Facility Location: _____

Date:_____ Next Review Date (within 12 months): _____

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Once the above questions have been answered, and the risk assessment has been completed, the next step is to reduce potential risks and threat opportunities within the organization through the development and implementation of a detailed and comprehensive *security plan*.

For companies that store, handle, prepare for transport, or transport hazardous materials, a written security plan should, at a minimum, contain the following three basic areas:

1. **Personnel security;**
2. **Unauthorized access;** and
3. **En route security.**

The security plan must also include the following:

- Identificatio by job title of the senior management official responsible for overall development and implementation of the security plan;
- Security duties for each position or department that is responsible for implementing the plan or a portion of the plan and the process of notifying employees when specifi elements of the security plan must be implemented; and
- A plan for training hazmat employees in accordance with §172.704 (a)(4) and (a)(5).

The security plan must be in writing and must be retain for as long as it remains in effect. The security plan must be reviewed annually and revised and updated as necessary to reflec changing circumstances. All copies of the security plan must be revised and updated.

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Sample Personnel Security Plan

Company Name: _____

Plan Developer/Contact: _____

Effective Date: _____

Review Date (within 12 months): _____

(Note: Identify specific security risks and measures for each individual location in the organization if they differ from the rest.)

Title: Personnel Security Plan

Security Plan Objective: *The Company* recognizes that its employees can be among our most critical assets as we strive to enhance and improve our overall security. *The Company* also understands that our employees have a desire to work in a safe and secure environment. Because of this, *The Company* has developed this personnel security plan that establishes basic internal security procedures and standards to protect both our employees and the general public from harm.

Security Plan Purpose: This policy is designed to:

1. Provide the guidelines and procedures to secure hazardous materials and protect the company's employees.
2. Establish uniform security procedures that all employees must observe.

Security Plan Scope: The guidelines and procedures listed in this plan cover a variety of internal security procedures, as well as other sensitive or critical daily operational activities, and apply to all company personnel.

I. Personnel Security

1.0 Security Training

1.1 *The Company* will ensure that all employees are provided with thorough security training. All employees will be trained in, and are expected to be familiar with, the company's security plans and procedures. At a minimum, this training will include detailed instruction regarding *The Company's*:

a. Overall security objectives (see above);

b. Individual employee security responsibilities (see below);

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c. Specific security procedures (see below); and

d. The organization's security structure.

1.2 List of general employee security responsibilities:

- **Top management (identify job title)** is responsible for establishing and communicating the overall security goals of the organization.
- **Managers** and **supervisors** are responsible for being fully knowledgeable of the security issues and concerns of their area(s), departments, and employees. In addition, they are responsible for providing detailed information on system operations including daily work processes, activities, and identifying potential security vulnerabilities. Once identified, managers and supervisors are responsible for:
  - Selecting, prioritizing, developing, and implementing strategies and procedures to meet established security goals;
  - Measuring and monitoring the effectiveness of the security strategies and procedures; and
  - Reviewing and, when necessary, adjusting the strategies and procedures. If deficiencies or other vulnerabilities are discovered in the security process, appropriate corrective action or adjustments will be made.

Location/department/position or title	Is responsible for implementing the following portion(s) of the plan:

Location/department/ position or title	Is responsible for communicating the following portions of the security plan:	To the following employees/job titles/ departments/locations:

- **Employees** are responsible for adhering and conforming to all security-related work activities, processes, and procedures. In addition, employees are encouraged to provide feedback and suggestions on ways to improve the organization's security program.

2.0 Suspicious Activity

2.1 All employees are expected to understand and adhere to the following corporate *suspicious activity reporting* procedures. They are intended for all employees to follow in the event any

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unusual or suspicious activity that poses a threat to the safety of our employees and the security of our equipment, facilities, or hazardous materials cargo, is observed.

2.2 **Employer Responsibility Statement —** *The* Company will provide a work environment that is reasonably free of hazards and threats of violence which may cause damage to property or harm to people. It is also the company's policy to establish an effective and continuous safety and security program that incorporates educational and monitoring procedures. All supervisors and managers are responsible for ensuring that their employees are trained in appropriate security and suspicious activity reporting procedures.

2.3 **Employee Responsibility Statement —** All employees have a responsibility to themselves and to the company to observe and report any suspicious or unusual activity that threatens safety or security.

2.4 **Reporting Procedures —** Employees are expected to use common sense and good judgment when assessing the threat potential of any suspicious activity. Depending on the given situation, employees will be expected to report any observed suspicious activity to their immediate supervisor, next level manager, the corporate safety director, or the local law enforcement official or fire department.

The Company defines suspicious activity to include (but not limited to) any of the following situations:

- Unidentified person(s) attempting to gain access to property, equipment, or facilities.
- Unidentified person(s) in any area of the company, office, yard, or parking lot.

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- An employee, unescorted vendor, or supplier visiting a part of the company for no known reason.
- Any unescorted or unaccompanied visitor anywhere in the building or wandering around the yard or parking lot.
- Any person (employee or otherwise) who appears to be hiding something or is acting nervous, anxious, or secretive.
- Any employee or visitor making unusual or repeated requests for sensitive or important company documents or information.
- Any person asking an employee to make any unauthorized movement (pick-up and delivery) for cash (motor carrier specific).
- Any person or group loitering outside a company facility or premises.
- Any person claiming to be a representative of a utility (gas, water, electric) but cannot produce valid company identification.
- Any person carrying a weapon such as a gun or knife.
- After hours, any vehicle driving by a company facility with the lights off.
- Any occupied vehicle parked outside a company facility — especially if the vehicle has been sitting for a long period or after normal work hours.
- An unfamiliar vehicle that appears to be abandoned near a company building or parking lot.

The above list is not all inclusive. It is meant to provide possible examples of suspicious activities. Once, and if, a suspicious activity is identified, the next step is to act. Employees not only need to be able to identify suspicious activity, they also need to know what to do about it.

2.5 **Phone Numbers of Primary Responders:**

Primary Responder:	Contact Information:
Corporate Safety Director:	Work: Home:
Operation Manager:	Work: Home:
Immediate Supervisor:	Work: Home:
Secondary Supervisor:	Work: Home:
Police Department:	Phone:

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Fire Department: Phone:

Other (describe): Phone:

2.6 **Incident Report:** An incident report is to be filled out as soon as possible, by either the employee or other manager, following the reporting and resolution of any observed suspicious activity.

Suspicious Activity Incident Report

Employee's Name: Date:

Title: Shift:

Date and Time of Observation: Witnesses:

Observation Reported to:

Describe the Suspicious Activity:

Action Taken:

Additional Comments:

3.0 Employee/Management Security Information Sharing

3.1 A security component shall be included in every employee/management meeting. Issues to be discussed include:

- New and current security measures and procedures;
- General security awareness; and
- An update on the company's security efforts and results.

3.2 Managers and supervisors are responsible to communicate all relevant corporate security-related information, news, facts, and trends to their employees in a timely and accurate manner. This information can be communicated using a variety of company options including:

- Email;
- Internal company newsletters;
- Voice mail updates;
- Employee bulletin/message boards;

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- One-on-one meetings;
- Group employee/manager meetings;
- Other appropriate/approved communication option.

4.0 Hazmat Personnel Screening

4.1 All applicants applying for any position involving access to, handling, storing, preparing for transport, and/or transport of hazardous materials for *The Company* shall submit an accurate, complete, signed and dated application for employment. The hiring/screening process **shall not** continue until all information on the application has been verified as true and accurate.

4.2 An inquiry into the previous employment history shall be made for every hazmat employee applicant. Hazmat employee applicants shall provide accurate and complete previous and current employer information upon request, including but not limited to:

- Names and addresses of previous employers;
- Names and titles of previous supervisors;
- Phone numbers or other contact information for both of the above.

The employee hiring/screening process **shall not** continue until all previous employer information has been verified as true and accurate.

4.3 All hazmat employee applicants applying for positions with *The Company* shall be given an in-person interview by responsible company personnel. In-person interviews are used to determine fit for both the applicant and the company. In addition, the in-person interview should be used to verify any gap(s) in employment, reason(s) for job or career changes, or any other important or unexplained behavior or history.

4.4 **Criminal Background Investigations:** A criminal background check shall be made on all applicants applying for any position involving the handling, storing, preparing for transport, and/or transport of hazardous materials. The criminal background check shall be made with regard to convictions of misdemeanors and felonies only.

4.5 **Proof of Right to Work:** All applicants applying for any position involving the handling, storing, preparing for transport, and/or transport of hazardous materials for *The Company* shall be required to provide proof of their legal right to work in the United States.

5.0 Driving Qualifications and Hiring Standards (motor carrier specific)

5.1 *The Company's* driver qualification and hiring procedures shall be in compliance with all applicable state and federal regulations, and meet the organization's security standards.

5.2 Applicants shall not be considered for employment as drivers by *The Company* unless they meet the following minimum requirements. Persons applying for the position of driver must:

1. Meet the company's minimum age and experience requirements.

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2. Have a driving record that is in line with the company's safety standards with regard to preventable motor vehicle accidents and violations of motor vehicle laws (all past driving information provided by applicants shall be verified).
3. Be able to read and speak English sufficiently as required by §391.11(b)(2).
4. Be physically qualified to drive a company vehicle.
5. Possess a current and valid commercial driver's license of the correct type and with the proper endorsements.
6. Not be disqualified to drive a commercial motor vehicle under the rules set forth in §391.15.

5.3 All applicants applying for the position of driver with *The Company* shall submit an accurate, complete, signed and dated application for employment. The driver qualification and hiring process **shall not** continue until all information on the application has been verified as true and accurate.

5.4 An inquiry into the driving record during the preceding 3 years (10 years for positions requiring a CDL) shall be made for every driver applicant. The inquiry shall be made to the appropriate agency of every state in which the applicant held a motor vehicle operator's license or permit. The driver qualification and hiring process **shall not** continue until all driving record information for the preceding 3 years (10 years for positions requiring a CDL) has been verified as true and accurate.

5.5 An investigation into the Safety Performance History data from previous DOT-regulated employers during the preceding 3 years (10 years for positions requiring a CDL) shall be made for every driver applicant. Driver applicants shall provide accurate and complete previous and current employer information upon request, including but not limited to:

1. Names and addresses of previous employers;
2. Names and titles of previous supervisors and dispatchers;
3. Phone numbers or other contact information for both of the above.

The driver qualification and hiring process **shall not** continue until all Safety Performance History information for the preceding 3 years (10 years for positions requiring a CDL) has been verified as true and accurate.

5.6 An investigation into all former and current non-DOT-regulated employment of the driver applicant for the previous 3 years shall be made. Driver applicants shall provide accurate and complete previous and current non-DOT-regulated employer information upon request, including but not limited to:

1. Names and addresses of previous DOT-regulated employers;
2. Names and title of previous supervisors; and

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3. Phone numbers and other contact information for both of the above.

5.7 All applicants applying for the position of driver with *The Company* shall be given an in-person interview by responsible company personnel. In-person interviews are used to determine fit for both the applicant and the company. In addition, the in-person interview should be used to verify any gap(s) in employment, reason(s) for job or career changes, or any other important or unexplained behavior or history.

5.8 All applicants applying for the position of CDL driver with *The Company* shall submit to a pre-employment drug screen as required by §382.301, and no driver applicant shall perform any work or activity for *The Company* until a verified negative test result has been obtained for the applicant.

5.9 All applicants applying for the position of driver with *The Company* shall be medically examined and certified as physically qualified to operate a commercial motor vehicle by a licensed medical examiner of *The Company's* choosing.

5.10 **Criminal Background Investigations:** A criminal background check shall be made on all applicants for the position of driver. The criminal background check shall be made with regard to convictions of misdemeanors and felonies only.

5.11 **Proof of Right to Work:** All applicants for the position of driver for *The Company*shall be required to provide proof of their legal right to work in the Untied States.

Employee Sign-Off Sheet

I acknowledge I have been informed and have reviewed a copy of the company's *Personnel Security* plan. I have read and understand the procedures contained therein, and I accept the plan as a working document that I will support and follow in my daily work.

Employee's Signature: Date:

Supervisor's Signature: Date:

Corporate Safety Director's Signature: Date:

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Employee Sign-Off Sheet

Note: *Employees should not be given a physical (or electronic) copy of the policies and procedures. Information should be released on a need-to-know basis, with the hard copy locked up with access limited or any electronic copy protected by passwords with limited access. If employees wish to review a policy and procedure at a later date, it should be done under the direct supervision of a manager or someone else designated with authority. No photocopying or printing of the existing document should be allowed.*

Sample Unauthorized Access Plan

Company Name: _____

Plan Developer/Contact: _____

Effective Date: _____

Review Date (within 12 months): _____

(Note: Identify specific security risks and measures for each individual location in the organization if they differ from the rest.)

Title: Unauthorized Access Plan

Security Plan Objective: *The Company* is committed to providing its employees with a safe and secure work environment. *The Company* shall provide adequate security measures to ensure the safety of our employees, hazardous materials, equipment, facilities, and the general public.

Security Plan Purpose: This security plan was developed to clearly explain the general security procedures and guidelines that will address unauthorized access our physical structures and facilities. This plan shall be communicated to all employees, and all employees shall be expected to adhere to the standards set forth in this policy.

Security Plan Scope: The following guidelines and procedures cover safety and security issues related to unauthorized access to our physical facilities and external premises.

II. Facility Security

1.0 External Partnerships

1.1 *The Company* will establish a partnership and professional working relationship with local law enforcement officials, emergency responders, and other public safety and security agencies. These partnerships will include the sharing of *The Company's* operation, work processes, and hazardous materials stored on site or transported. *The Company* shall provide basic information regarding its hazmat operation, locations, and potential threats.

1.2 Local law enforcement officials, emergency responders, and other public safety and security agencies will be periodically invited on-site to discuss and evaluate potential security risks, vulnerabilities, and to assist in the development or enhancement of *The Company's* current security program.

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1.3 All suspicious activities or apparent criminal acts affecting the safety or security of *The Company's* interests shall be reported immediately to the proper law enforcement agencies and appropriate company officials. In addition, a detailed written report shall be made of any security-related incident.

1.4 A complete listing of emergency telephone numbers shall be provided to all dispatchers, supervisors, and managers. This list shall include the numbers for local police and fire departments, regional state police offices, the FBI, and all company managers and executives.

1.5 *The Company* shall request an increase in off-hours law enforcement patrols to coincide with increases in national security threat/risk levels.

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2.0 Information Security

2.1 All information (electronic and hard copy) relating to the storage and/or transporting of hazardous material shall be restricted to employees on a need-to-know basis. All hazmat-related paperwork and other documentation shall be maintained and retained in a secure area with limited and controlled access.

2.2 **Dispatch Security Procedures (motor carrier specific):** All work/load assignment sheets (hard copy and/or electronic) involving the transportation of hazardous materials shall be sequentially numbered and maintained in a secure location. Access to hazardous materials load information shall be limited to operations personnel only, including dispatchers, the operation manager, and other designated employees.

2.3 Dispatch personnel are responsible for the security and proper issuance of all hazardous materials load-related work assignment documents. When providing load information to drivers, dispatchers shall review the load information to ensure that it is complete and accurate. For security purposes, it is extremely important that:

1. The load assignment number is clearly communicated;
2. Trailer numbers on all work assignments are verified; and
3. Shipper pick up number(s) are checked and verified.

2.4 In the event a trailer containing hazardous material(s) needs to be staged (for any length of time) in a terminal yard or other company facility, all load-related paperwork shall be brought into the dispatch office and maintained there until the driver is scheduled to complete his or her run. Drivers are prohibited from leaving load-related paperwork with any loaded trailer. Drivers failing to abide by this procedure are subject to disciplinary action.

2.5 All old operational, compliance-related, and hazardous materials records and documents shall be destroyed (shredded) before being discarded.

3.0 Security Inspections

3.1 *The Company* is committed to providing its employees a safe and secure work environment. *The Company* shall provide adequate security measures to ensure the safety of our employees, equipment, facilities, hazardous materials, and the general public. The following security guidelines cover safety and security issues related to **external** and **internal** security inspection procedures.

4.0 External Premises Security inspections

4.1 **Fences, Gates, and Exterior Doors:** At facilities where perimeter fencing is in place, safety or facilities maintenance personnel will be responsible for establishing and following a written schedule for regular inspection of the fence and associated gate(s). Inspections will be conducted at a rate of not less than once per week. All necessary repairs shall be performed as needed.

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4.2 At a minimum, all perimeter fencing shall meet the following specifications:

- Fencing shall be at least eight feet high, securely anchored, and topped with a barbed wire section angled outward at a 45-degree angle.
- Chain-link fence shall be at least nine-gauge or heavier, with openings no larger than two inches.
- The barrier should be hard to climb over or penetrate, and all fencing shall be installed in such a way so that no gaps are left between the fencing and areas where it butts up against a building.
- An adequate clearing on both sides of the barrier shall be maintained. Eliminate unnecessary gates or doors in the fencing, or secure them tightly.
- Broken fences, walls, and other barriers shall be repaired immediately. Safety or maintenance personnel will be responsible for developing and implementing a regular schedule of inspection.
- Possible entrances that go under the perimeter and could allow an unauthorized person to enter, such as culverts that pass under the perimeter, utility tunnels, or manholes leading into the facility shall be sealed.
- A fencing/barrier layout that prevents more than one vehicle from entering or leaving at the same time shall be created. The physical barriers (fences, concrete barriers, etc.) shall be strong enough to help prevent vehicle theft.
- When necessary a guard shall be posted at the entry/exit points to screen all incoming and outgoing vehicles. This can be a significant deterrent, and can successfully stop intruders.
- Don't store any ladders or long objects in plain view. They could be used to scale a fence or enter a building.

4.3 Any unusual or suspicious damage to fencing or gates shall be reported to the *Safety Department* immediately.

4.4 Access to facilities, parking lots, and general premises shall be confined to one designated gate or entrance point at all times. All traffic entering and exiting through the designated gate/entry way shall be recorded on a daily log that notes:

1. The date and time of day
2. The driver's/visitor's name
3. Type of vehicle and license plate number of same
4. Reason for visit
5. Company representative who arranged the visit (if applicable)

4.5 Records of daily traffic logs shall be retained for six months.

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4.6 Facilities maintenance personnel will be responsible for ensuring areas adjacent to both sides (inside and outside) of the fence are properly maintained and remain completely clear of trash, debris, and all plant life (weeds, shrubs, and bushes).

4.7 Fence lines shall be kept free of debris or other objects (such as trees, pallets, or skids) that could be used to allow entry over the fence.

4.8 All exterior doors of any company building that open to the outside of the fenced perimeter shall remain locked at all times, including evening hours, weekends, and holidays. In all cases, such doors are not to be used as main entrances or exits, and should be marked accordingly.

4.9 **Terminal Security Signs:** A security/warning sign shall be posted on all exterior doors and entryway gates. All signs used for safety or security purposes shall be conspicuously posted, clearly readable, and easily understood.

Signs posted at gate(s) of fenced terminal areas should read as follows:

NOTICE
NO ADMITTANCE — UNAUTHORIZED PERSONS OR VEHICLES NOT ALLOWED BEYOND THIS POINT — VIOLATORS WILL BE PROSECUTED

Signs posted on fencing shall be placed at intervals of not less than 200 feet, and shall read as follows:

NO TRESPASSING

Signs posted at the entrance of unfenced terminals should read as follows:

PRIVATE PROPERTY
NO TRESPASSING

Signs posted on building and terminal exterior doors shall read as follows:

PRIVATE BUILDING
UNAUTHORIZED PERSONS
PROHIBITED FROM ENTERING

4.10 **Exterior Inspection Procedures:** Safety, operations, or maintenance personnel will be responsible for establishing and following a written schedule for regular exterior premises security inspections. Exterior inspections will be conducted at a rate of not less than twice daily (early morning and late afternoon). Each yard check will be recorded and contain the following information:

1. The date and time of day of the exterior premises inspection
2. All loaded trailer numbers
3. All empty trailer numbers
4. All docked trailer numbers (if applicable)

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5. All parked/idle tractor numbers (motor carrier operation)

4.11 Every vehicle shall be accounted for. Any vehicle discovered during an exterior inspection that cannot be identified shall be physically checked, investigated, and identified.

4.12 Any unauthorized persons discovered during the course of any exterior security inspection shall be investigated, reported to the local police and appropriate company official, and/or escorted off the premises.

4.13 Loaded trailers containing hazardous materials cargo shall be sealed with a barrier-type seal, heavy-duty lock, and fitted with a king pin lock at all times while staged at any company facility.

4.14 Records of exterior security inspections shall be retained by the company for six months.

4.15 **Exterior Security Lighting:** Facility exteriors, grounds, and parking lots shall be well lighted by automatic security lighting devices which may include:

- Dusk-to-dawn mercury lighting;
- Motion sensing/detecting floodlights; and/or
- Automatic timer activated exterior lighting.

4.16 Exterior security lighting shall be directed downward and away from buildings. This will help prevent glare and will ensure the grounds are visible form inside the terminal. In addition:

- Perimeter lighting shall be installed so that the cones of illumination overlap. This will help eliminate areas of darkness and shadow.
- Exterior security lighting shall be controlled by an automatic photoelectric cell. This will prevent human error and will ensure that the lighting is activated every time.
- All exterior lighting shall be secured in vandal/weather resistant housing.

4.17 Exterior security lighting shall be so sufficient as to illuminate the entire building exterior and surrounding grounds (including all areas of possible concealment), and to permit easy detection of any unauthorized intruder or trespasser.

4.18 Exterior security lighting shall be inspected at a rate of not less than once per month.

4.19 **Doors, Windows, and Entryways:** Exterior doors, windows, and other entryways shall be inspected and maintained according to the following procedures.

4.20 All exterior doors shall be secured with heavy duty dead bolt-type locks.

4.21 All exterior doors shall be equipped with handle-key locks that must be opened and closed with a key, and shall remain locked at all times to prevent easy access by unauthorized persons. In addition, the door locks shall not be keyed alike (no one key shall open more than one exterior door).

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4.22 All keys to door locks shall be maintained in the terminal key control file. This file shall be controlled by responsible Safety or Operations personnel. Issuance of exterior door keys shall be restricted to designated personnel.

4.23 All exterior windows shall be secured with locking devices that can withstand efforts to pry or force the window open.

4.24 All exterior doors and windows shall be inspected at a rate of not less than once every three months.

4.25 **Hazardous Materials Storage Security:** All hazardous materials are stored in a locked and secured area with limited and controlled access. Authorized employees only shall be allowed access to hazardous materials storage areas, and will be required to sign in and out.

4.26 Periodic inventories of all hazardous materials on site will be conducted. Any shortages or discrepancies discovered shall be investigated and/or reconciled immediately.

5.0 Visitor, Vendors, and Suppliers Security

5.1 All visitors, customers, vendors, and suppliers visiting the company shall be directed to park their vehicles in the area of the employee parking lot designated as "Visitor Parking."

5.2 Vendors and suppliers needing to make deliveries or pick ups) shall be escorted to the appropriate pick up/delivery area by the responsible receiving/shipping personnel. Once the pick up or delivery has been completed, the vendor/supplier shall be escorted off company grounds. At no time shall any vendor or supplier to the company be left unaccompanied.

5.3 **Main Entrance Guidelines**: A single point of entry shall be designated for all general visitors to the facility.

5.4 All general visitors and customers shall be required to register with the on-duty receptionist or other on-duty company employee upon arriving. Under no circumstances will a visitor to the company be allowed access without first registering at the designated entrance.

5.5 A written log shall be maintained for all general visitors to the company. The written log shall include:

1. The name of the visitor and the company he or she represents;
2. The date and time or arrival;
3. Who approved or arranged the visit;
4. The purpose for the visit; and
5. The date and time of departure.

The written log shall be maintained for 12 months.

5.6 **General Visitor Guidelines On-Premise Procedures:** After registering, and depending on the reason for the visit, the visitor shall be either:

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1. Escorted to the appropriate area of the company by the responsible company employee (a copier repairperson being escorted to the broken copier in operations for example); or
2. Met by the company employee who arranged the visit in the reception area, and escorted to his or her office or work-station.

Once the work/visit has been completed, the visitor shall be escorted off company grounds. At no time shall any visitor to the company be left unaccompanied or unescorted.

6.0 Employee and Visitor Parking

6.1 Employees and visitors shall park only in areas specifically designated **Employee/Visitor Parking**. Unauthorized parking near or in a loading/unloading dock or platform is **strictly prohibited**.

6.2 *The Company* shall be responsible to ensure employee parking areas are adequately lighted, safe, and secure.

7.0 Loitering on Company Property

7.1 *The Company* has adopted a no loitering policy. Loitering in company buildings/terminals and on company grounds by any person(s), including employees, is prohibited.

7.2 Managers and supervisors shall be instructed to confront and question any person(s) observed loitering on company property. This policy applies to unauthorized or unknown person(s) as well as off-duty employees.

7.3 Employees (such as drivers waiting for dispatch or other employees on break) may congregate in designated areas only. See your supervisor for locations of break/lunch room facilities.

8.0 Third-party Guard Service

8.1 In some cases (company facilities located in high-crime areas for instance) managers shall have the responsibility for the employment of adequate security guard service protection (when deemed necessary).

8.2 Where a third-party guard service is used (guard stationed at a facility's gate or entranceway), a detailed list of security instructions, procedures, and responsibilities shall be furnished by the terminal manager or responsible safety department representative.

Employee Sign-off Sheet

I acknowledge I have been informed and have reviewed a copy of the company's *Unauthorized Access* plan. I have read and understand the procedures contained therein, and I accept the plan as a working document that I will support and follow in my daily work.

Employee's signature: Date:

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Employee sign-off sheet

Supervisor's signature: Date:

Corporate Safety Director's signature: Date:

Note: *Employees should not be given a physical (or electronic) copy of the policies and procedures. Information should be released on a need-to-know basis, with the hard copy locked up with access limited or any electronic copy protected by passwords with limited access. If employees wish to review a policy and procedure at a later date, it should be done under the direct supervision of a manager or someone else designated with authority. No photocopying or printing of the existing document should be allowed.*

Sample En Route Security Plan

Company Name: _____

Plan Developer/Contact: _____

Effective Date: _____

Review Date (within 12 months): _____

(Note: Identify specifi security risks and measures for each individual location in the organization if they differ from the rest.)

Title: En Route Security Plan

Security Plan Objective: *The Company* is committed to the safe and efficient handling and transporting of hazardous materials. *The Company* is also committed to ensuring the physical safety of all employees and to reduce or prevent cargo theft and other security-related opportunities. *The Company's* goals are to ensure the safety of our employees and the security and integrity of hazardous materials from point of origin to fina destination.

Security Plan Purpose:

1. To clearly communicate general en route security procedures and guidelines to all drivers and non-driving personnel.
2. To provide the means and methods of protecting our employees, equipment, hazardous materials, and the general public while preparing for transport, or actually transporting hazardous materials.
3. To establish consistent security guidelines and procedures that shall be observed by all responsible personnel.

   Security Plan Scope: The following security guidelines and procedures apply to all work/load assignments. All company personnel will be expected to be knowledgeable of, and adhere to, these guidelines and procedures when performing any hazardous material-related activity for *The Company*.

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III. En Route Security (shipper specific

1.0 Qualifying Motor Carriers

1.1 Before *The Company* uses any motor carrier for the purposes of transporting hazardous materials, each carrier shall be qualifie as follows:

1. The motor carrier's current safety fitnes determination (i.e., safety rating) shall be considered, including a detailed review of all relevant safety-related data appearing in the Carrier Safety Measurement System (SMS), including:
   - The carrier's current safety fitnes determination;
   - Behavior Analysis and Safety Improvement Category (BASIC) scores;
   - Recent compliance review/audit data; and
   - A review of all data found within all BASICs available in the public view of the SMS (i.e., roadside inspection and crash data, motor carrier census data, etc.).

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2. All carriers must submit information regarding their driver/employee hiring, screening, and review process. Carriers will be responsible for ensuring their drivers remain qualified through a process of **annual review**, and will be asked to provide verification documentation of same. At a minimum, carriers must demonstrate they have in place an appropriate and thorough background investigation process for all drivers, that, at a minimum, includes:

   a. Previous employer inquiries;

   b. Driving records review; and

   c. Criminal conviction investigations.

1.2 Before loading any hazardous material, the identity of the driver and motor carrier shall be verified. Drivers will be asked to produce photo identification and current operator's or commercial driver's license (CDL), and the carrier shall be contacted to verify the:

- Driver's name and license number;
- Tractor/truck number; and
- Trailer number.

In addition, before loading the driver shall be asked the name of the cargo's consignee and destination. The information provided shall be confirmed with the *The Company's* records before releasing any hazardous materials shipment.

1.3 After loading activity for hazardous materials cargo has been completed, *The Company* shall ensure that the trailer is sealed with a company-issued barrier-type seal. All seal numbers, along with the date and time, shall be recorded in the presence of the driver on all shipping documents.

1.4 Verify that the motor carrier has terminal-to-truck tracking and communication capabilities.

IIIa. En Route Security (motor carrier specific)

1.0 Company Assigned Equipment

1.1 Each driver shall be assigned a numbered, heavy-duty padlock, and a receipt shall be obtained for the lock from each driver. The numbered padlock is to be used in conjunction with trailer door seals for every assigned load involving hazardous materials.

1.2 Drivers are responsible for and are expected to use their padlocks. In addition, when in use, the padlock's number shall be recorded on delivery manifest or bill of lading along with the trailer's shipper-issued seal number(s).

2.0 Point-of-origin Driver Security Procedures

2.1 Upon arrival at the hazmat load's point of origin, all drivers shall check in with the responsible shipping personnel to notify them of arrival and to provide picture proof of identity. Drivers will

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also be expected to produce their current operator's or commercial driver's license (CDL). While at the shipper, drivers shall follow the loading instructions and obey all customer safety and security rules and procedures.

2.2 At the designated loading location (assigned dock door), the driver shall secure the vehicle. No company vehicle will be left unattended until the driver is confident the vehicle is secured from moving.

3.0 Shipper Load & Count

3.1 In the event a driver is scheduled to pick up a trailer pre-loaded with hazardous material(s), he or she shall verify:

- The load's shipping papers;
- Seal numbers; and
- Trailer number.

Under no circumstances shall a driver be allowed or permitted to break a seal on a pre-loaded trailer or a trailer moving under a shipper's load and count provision. These guidelines apply to outbound loads as well as loads being picked up and returned to a terminal or spotting/staging area.

3.2 In the event of a live load, drivers are expected to supervise the entire loading process. Drivers are responsible to make sure no unauthorized or unscheduled cargo is loaded on any trailer.

3.3 When all loading activity has been completed, drivers are responsible for making sure the cargo is secure and to check the bill of lading or the delivery manifest to ensure cargo count is accurate. Once drivers are satisfied that the cargo matches the shipping papers, they shall:

1. Close the trailer doors and witness the shipper sealing of the trailer;
2. Record the seal number(s) on the shipping papers; and
3. Have the shipping papers signed by the responsible shipping personnel before leaving.
4. Contact their supervisor/dispatch to verify all pertinent load-related information and the loading process has been completed.

3.4 If a discrepancy is found between the cargo and bill of lading or shipping manifest, drivers shall contact their supervisor immediately for instructions.

3.5 In the event the shipper fails to supply a seal, drivers are required to use a company-issued seal. Seals can be obtained from any company supervisor.

3.6 Drivers are required to use their padlocks to provide additional cargo security for all loads containing hazardous materials. However, if using a padlock would cause any damage to the trailer door seal, attempts to use the padlock should not be made.

3.7 Before leaving any shipper, drivers shall make a thorough visual observation of their immediate surroundings and report any unusual or suspicious activity to their supervisor immediately.

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4.0 Hazmat En Route Standard Security Operating Procedures

4.1 Drivers, together with their supervisor/dispatcher, shall prepare and execute trip plans for all hazardous materials movements that list:

1. Routing schedules that avoid highly populated areas, bridges, and tunnels when possible;
2. Fueling and break locations (including approximate dates and times for same);
3. Dates and times of daily/routine check calls; and
4. Estimated times of arrival to stop offs and final destination.

These trip plans shall also include potential alternate routes and acceptable deviations.

4.2 For all hazardous materials movements, drivers shall minimize stops en route. Proper execution of thorough trip plans will help reduce the need for unnecessary or unplanned stops.

4.3 In the event a load containing hazardous materials need to be staged at a company terminal or facility while en route, it shall be stored in a secured (fenced in) location with limited and controlled access.

4.4 When deemed necessary (for high hazard materials), *The Company* will consider either the use of a team driver operation, or a security guard or escort service.

5.0 En Route Driver Security Guidelines & Procedures

5.1 Dispatch/Operations shall make every effort, such as working with consignees, to arrange hazardous materials delivery schedules that minimize in-transit down time. In most cases, this means that dispatch will schedule loads for delivery as early as possible based on drivers' available hours and the consignee's receiving hours of operation.

5.2 While in transit, drivers are **prohibited** from discussing information related to their load, route, or delivery schedule with any person(s) other than authorized company officials. Drivers failing to abide by this policy are subject to disciplinary action up to and including termination of employment. Drivers are to report any suspicious activity (including load-related inquiries from strangers) to their supervisors immediately.

5.3 Drivers are expected to take all reasonable and responsible precautions to prevent damage to company vehicles and theft of hazardous material(s) cargo while in transit.

For personal protection and safety, and the security of the cargo, drivers are expected to park in safe, well lit, designated truck parking locations only (such as reputable truck stops or high-traffic, major rest areas). When possible, trailers loaded with hazardous materials should be parked against a wall, fence, or other stationary/fixed object to enhance cargo security.

In all cases, drivers are required to inspect their vehicle and trailer for evidence of tampering after each stop.

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5.4 Drivers shall lock their vehicles and have all windows in the closed position at all times while in transit — especially during all time spent in urban areas, and parked at truck stops and rest areas.

5.5 When possible, dispatch shall contact receivers for the purpose of arranging secure overnight or after hours parking for drivers who can safely and legally arrive at their destinations ahead of schedule.

5.6 Drivers are **prohibited** from taking their equipment (loaded or empty) to or through home, or parking in any unsecured area. Drivers failing to abide by this policy are subject to disciplinary action up to and including termination of employment.

5.7 Drivers are expected to maintain regular communications with the company while in transit. Any incident of drivers failing to check in when required shall be assumed by *The Company* to be suspicious and highly irregular. Immediate action shall be taken in such situations. Drivers are expected to fully understand this procedure and make every effort to maintain regular contact and communication with dispatch.

6.0 Hijack or Cargo Theft Driver Guidelines

6.1 In the event of an attempted vehicle hijacking or cargo theft situation while the vehicle is in motion, *The Company* has adopted a **NO STOP** policy. Drivers who believe a vehicle hijacking is, or may be, in progress, are instructed to keep the vehicle moving as safely and responsibly as possible until the attempt has ceased and/or the authorities have been notified. However, in any hijack situation, drivers should use their own good judgment (whether to stop or keep moving) based on the degree to which they feel their personal safety is at risk. Nothing our drivers do is worth getting hurt over.

6.2 Drivers who do fall victim to vehicle hijackers or cargo thieves are instructed to notify local police as soon as possible. Once the proper authorities have been notified, drivers are required to contact an appropriate company official and follow all subsequent instructions.

6.3 Drivers are prohibited from picking up and transporting any unauthorized person.

7.0 Stop Off/Destination Driver Security Procedures

7.1 Upon arrival at the destination or stop off, drivers shall check in with the responsible receiving person(s) to notify them of arrival, show picture proof of identity, and receive unloading instructions. Drivers shall follow receiver's unloading instructions, and obey all customer plant safety and security rules and procedures.

7.2 Once permission to unload has been given, the driver shall proceed to the unloading location (assigned receiving dock door) and secure the vehicle. No company vehicle shall be left unattended until the driver is satisfied that the vehicle is secure from moving.

7.3 The driver, along with a responsible receiving employee, shall verify delivery, inspect the trailer seal(s), match the seal number(s) with those on the shipping papers, break the seal(s), open

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and secure the trailer doors, and inspect the cargo. Once both the driver and receiver are satisfied the driver shall back the trailer and secure the vehicle.

7.4 Drivers shall supervise the unloading process. In the event of cargo damage, overage, shortage, or any other discrepancy, drivers shall contact their supervisor immediately for instructions and to report the cargo claim incident.

7.5 After the unloading process has been completed, the driver shall get the appropriate paperwork signed by the responsible receiving employee, and contact dispatch for the next assignment or instructions.

Employee Sign-Off Sheet

I acknowledge I have been informed and have reviewed a copy of the company's *En Route Security* plan. I have read and understand the procedures contained therein, and I accept the plan as a working document that I will support and follow in my daily work.

Employee's Signature: Date:

Supervisor's Signature: Date:

Corporate Safety Director's Signature: Date:

Note: *Employees should not be given a physical (or electronic) copy of the policies and procedures. Information should be released on a need-to-know basis, with the hard copy locked up with access limited or any electronic copy protected by passwords with limited access. If employees wish to review a policy and procedure at a later date, it should be done under the direct supervision of a manager or someone else designated with authority. No photocopying or printing of the existing document should be allowed.*

Sample DHS National Terrorism Advisory System Security Plan

Company Name: _____

Plan Developer/Contact: _____

Effective Date: _____

Review Date (within 12 months): _____

(Note: Identify specifi security risks and measures for each individual location in the organization if they differ from the rest.)

Title: DHS National Terrorism Advisory System Security Plan

Security Plan Objective: *The Company* is committed to the safe, secure, and efficient handling and transporting of hazardous materials. *The Company* is also committed to ensuring the physical safety of all employees and to reduce or prevent security-related opportunities for terrrorists. *The Company's* goals are to

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ensure the safety of our employees and the security and integrity of hazardous materials from point of origin to fina destination.

Security Plan Purpose:

1. To establish procedures to monitor threats posted by the Department of Homeland Security (DHS), including roles and responsibilities.

2. To clearly communicate to employees, vendors, and customers the changes in normal operating procedures when credible threats are communicated by DHS via its National Terrorism Advisory System security plan using one of the following terms:

   - **Imminent Threat.** A specific credible, and impending threat against the United States.
   - **Elevated Threat.** A credible threat without as many details available.

   Each warning will identify if the threat applies to the nation in general or a specifi geographic location, industry sector, or infrastructure.

3. To provide a medium by which the motor carrier and its employess may commnicate changes to normal operating procedures in the event DHS communicates a credible threat, as well as when the threat has expired.

   Security Plan Scope: The following security guidelines and procedures apply to all personnel at the motor carrier, as well as vendors visiting the site. All company personnel will be expected to be knowledgeable of, and adhere to, these guidelines and procedures when performing any hazardous material-related activity for *The Company*.

   IV. DHS Threat Advisories

1.0 Monitoring DHS communications

1.1 *The Company* shall monitor Department of Homeland Security (DHS) alerts daily via:

- DHS webpage (www.dhs.gov/alerts),
- DHS email alerts, and
- DHS accounts on Facebook and Twitter @NTASAlerts.

The party(ies) responsible for monitoring DHS warnings and initiating communication within the organization will be identifie and understand their roles and responsibilities.

2.0 Communicating threats and adjusting business practices

2.1 When a credible threat is communicated to the general public or industry sector through DHS (or local authorities on behalf of DHS), *the Company* shall communicate the threats and changes to procedures to:

- Drivers (on the road) via [___Enter communication method__]
- Staff onsite via [___Enter communication method__]
- Off-duty employees [___Enter communication method__]
- Vendors via [___Enter communication method__]
- Customers via [___Enter communication method__]

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Procedures surrounding access to the facility, communication, and en route security will be reviewed based on the severity of the threat, geographic location, industry sector, and the like. More stringent procedures will be communicated to appropriate parties. When the threat has expired, *the Company* shall communicate when it resumes normal activities.

Employee Sign-Off Sheet

I acknowledge I have been informed and have reviewed a copy of the company's *DHS National Terrorism Advisory System* security plan. I have read and understand the procedures contained therein, and I accept the plan as a working document that I will support and follow in my daily work.

Employee's Signature: Date:

Supervisor's Signature: Date:

Corporate Safety Director's Signature: Date:

Note: *Employees should not be given a physical (or electronic) copy of the policies and procedures. Information should be released on a need-to-know basis, with the hard copy locked up with access limited or any electronic copy protected by passwords with limited access. If employees wish to review a policy and procedure at a later date, it should be done under the direct supervision of a manager or someone else designated with authority. No photocopying or printing of the existing document should be allowed.*

Additional Information

In addition to the security plans, *The Company* will also make every effort to stay up-to-date regarding hazardous materials transportation security-related regulations, news, trends, facts, and best practices. *The Company* will do this through using the following methods:

1. Gather and analyze as much data as possible about our own operations and those of other organizations with similar product lines and transportation practices;
2. Develop a communication network to share security best practices, trends, and lessons learned with other companies in the industry.
3. Share information on security incidents to determine if a pattern of suspicious or criminal activity that, when considered in isolation are not significant but when taken as a whole, generate concern; and
4. Revise security plans and procedures as necessary to take account of changed circumstances and new information.

Reserved

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HAZARDOUS MATERIALS SECURITY CHECKLISTS

Reserved

SENSITIVE SECURITY INFORMATION

I. Guidelines for Conducting an Employee/Driver Background Investigation Check

Company Official: _____ **Title:** _____

Location: _____ **Audit Date:** _____
Next Audit (within 12 months): _____

(**Note:** Identify specific security risks for each individual location in the organization if they differ from the rest.)

Key: ***A = Adequate security I = Inadequate security****

* Responses and/or recommendations must be entered for all areas marked inadequate security.

A	I		Response	Recommendation
❑	❑	All employee/driver applications are thoroughly reviewed for: 1. Legibility; 2. Accuracy; and 3. Completeness.		
❑	❑	Employee/driver applicants are required to list all names used on the application including nicknames, aliases, and informal names (e.g. using “Bill” instead of “William”).		
❑	❑	Gaps in employment are investigated, explained, and verified for all employee/driver applicants.		
❑	❑	Frequent job changes are investigated, explained, and verified for all employee/driver applicants.		
❑	❑	Frequent residence changes are investigated, explained, and verified for all employee/driver applicants.		
❑	❑	If the employee/driver applicant a former member of any branch of the armed services, the type of discharge received is investigated and verified.		
❑	❑	All employee/driver applicants are verified for their right to work in the United States (all immigration papers are on file and documented).		
❑	❑	A criminal conviction history is conducted on all employees/ drivers who will be preparing for transport, or transporting hazardous materials.		
❑	❑	Personal and professional references are requested for all employee/driver applicants.		
❑	❑	Personal interviews are conducted with all employee/driver applicants. In-person interviews are used to appraise personality, character, motivation, honesty, and reliability.		
❑	❑	Fingerprints and photos of all employee/driver new hires are taken and retained in their personnel files.		
❑	❑	All suspicious employee/driver applicants or hiring/screening incidents are reported to the company’s security department.		

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SENSITIVE SECURITY INFORMATION

A	I		Response	Recommendation
❑	❑	A designated manager is assigned overall corporate security responsibilities. This person serves as the main contact for all employees to answer questions and provide security-related corporate information.		
❑	❑	All employees are informed of the company's designated security manager assigned overall corporate security responsibilities.		
❑	❑	The company has designated at least one employee from each department and/or employee group to serve as a safety and security representative, and who reports to the designated corporate safety and security manager.		

II. Security Checklist for the Shipper of Hazmat

Company Official: _____ **Title:** _____

Location: _____ **Audit Date:** _____
Next Audit (within 12 months): _____

(Note: Identify specific security risks for each individual location in the organization if they differ from the rest.)

Key: ***A = Adequate security I = Inadequate security****

* Responses and/or recommendations must be entered for all areas marked inadequate security.

Hazmat Storage and Handling			Response	Recommendation
A	I			
❑	❑	How are hazardous materials stored or handled on site secured?		
❑	❑	Are hazardous materials handled or stored on site located in a secured area(s)? Are/do these locations: • Protected with alarm and/or other security systems? • Fenced in and locked at all times? • Require authorized employees to sign in and out?		
❑	❑	What systems, procedures, or processes are in place that prohibits unauthorized and untrained employees access to areas containing hazmat?		
❑	❑	What systems, procedures, or processes are in place to monitor and control inventories of hazardous materials? What records are maintained?		
❑	❑	How often are inventories of hazardous materials audited?		
❑	❑	What reporting procedures are in place in the event of discrepancies are discovered during a hazardous materials audit?		

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SENSITIVE SECURITY INFORMATION

Hazmat Storage and Handling			Response	Recommendation
❑	❑	Have hazardous material(s) security packing and transferring checklists been developed and distributed to all hazmat employees? Are these checklists followed and used consistently?		
❑	❑	Are frequent and unscheduled (random) internal and external security inspections conducted?		
❑	❑	Have all hazardous materials shipping employees been trained, tested and certified according to the Hazardous Materials Regulations?		
❑	❑	Have all shipping personnel received general security awareness training, and does the company retain documentation of such training on file?		
Training and Personnel			**Response**	**Recommendation**
A	**I**			
❑	❑	Have all shipping personnel received training in how to recognize and disposal of suspicious packages? Does the company retain documentation of such training on file?		
❑	❑	Have all shipping personnel received training in how to recognize, confront, and/or deal with suspicious (aberrant) behavior? Does the company retain documentation of such training on file?		
❑	❑	Have all employees received emergency and security response training including (but not limited to) instructions on escape routes and notification, communication procedures, policies and procedures during DHS Threat Level and/or U.S. Coast Guard MARSEC Level changes? Does the company retain documentation of such training and drills on file?		
❑	❑	Are thorough background investigations being conducted on all hazmat employees?		
❑	❑	Are backgrounds checks periodically reviewed and updated on existing hazmat employees?		
❑	❑	Does the company conduct regular employee/management meetings to discuss and review security measures and awareness?		
Carrier Security			**Response**	**Recommendation**
A	**I**			
❑	❑	How are carriers' identification verified and matched to shipping documentation?		
❑	❑	What procedures are in place to audit/review carriers' security program and driver screening process?		
❑	❑	What procedure is in place to verify a carrier is authorized to transport hazardous materials?		
❑	❑	What procedures are in place to check/inspect carriers' equipment for safety?		
❑	❑	Are driver's required to produce picture identification and their operator's or commercial driver's license (complete with hazmat endorsement)?		

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SENSITIVE SECURITY INFORMATION

Hazmat Storage and Handling			Response	Recommendation
Loading and Securing Shipments			**Response**	**Recommendation**
A	**I**			
❑	❑	What procedures are in place to ensure hazardous materials are being securely loaded and properly labeled?		
❑	❑	Are hazardous materials shipments being tracked after the carrier (driver) has left the facility?		
❑	❑	Are receivers (consignees) notified that their hazmat shipment has departed and is en route?		
❑	❑	What information is provided to receivers (consignees)? Is this information adequate?		
❑	❑	Are deliveries of hazmat shipments verified and confirmed?		

III. Security Checklist for the Carriers of Hazmat

Company Official: _____ **Title:** _____

Location: _____ **Audit Date:** _____
Next Audit (within 12 months): _____

(Note: Identify specific security risks for each individual location in the organization if they differ from the rest.)

Key: ***A = Adequate security I = Inadequate security****

* Responses and/or recommendations must be entered for all areas marked inadequate security.

Hazmat Transportation and Handling			Response	Recommendation
A	**I**			
❑	❑	When staged at a terminal or other carrier facility, how are trailers loaded with hazardous materials secured? Are they kept in secured (fenced in) areas with limited and controlled access?		
❑	❑	Are unauthorized and untrained employees prohibited and/or restricted from areas where trailers containing hazmat are staged?		
Training and Personnel			**Response**	**Recommendation**
A	**I**			
❑	❑	Are drivers being trained in thorough and detailed pre- and post-trip inspection procedures? Has security awareness training been incorporated into these inspections?		
❑	❑	Have all hazardous materials transportation employees been trained, tested and certified according to the Hazardous Materials Regulations? How does the company verify that its transportation personnel meet all federal requirements for handling and transporting hazmat?		

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SENSITIVE SECURITY INFORMATION

Hazmat Transportation and Handling			Response	Recommendation
❑	❑	Are drivers/operators trained in marking, labeling, placarding, and packaging requirements?		
❑	❑	Have all transportation personnel received general security awareness training, and does the company retain documentation of such training on file?		
❑	❑	Have all transportation personnel received training in how to recognize, confront, and/or deal with suspicious (aberrant) behavior? Does the company retain documentation of such training on file?		
❑	❑	Have all employees received emergency and security response training including (but not limited to) instructions on escape routes and notification, communication procedures, policies and procedures during DHS Threat Level and/or U.S. Coast Guard MARSEC Level changes? Does the company retain documentation of such training and drills on file?		
❑	❑	Have all transportation personnel received training in how to recognize suspicious packages prior to accepting them for shipment? Does the company retain documentation of such training on file?		
❑	❑	Are thorough and complete background checks being conducted on each driver applicant, and is all information discovered during the background check verified?		
❑	❑	Is proof of the right to work in the United States being established for all driver applicants?		
❑	❑	Are backgrounds checks periodically reviewed and updated on existing drivers?		
❑	❑	Are drivers trained to have available for inspection required documentation such as a photo ID, records of duty status, operator's or commercial driver's license, medical card, shipping papers and bills of lading, emergency response information, etc.?		
❑	❑	Are frequent and unscheduled (random) internal and external security inspections conducted? Do these inspections include security spot checks of personnel and vehicles?		
❑	❑	What system is in place to monitor/track vehicles, trailers, and cargo? What terminal-to-truck communication system is in place?		
❑	❑	What procedures are in place for safeguarding hazardous materials during en route breakdowns and/or emergencies?		
Transporting Hazmat			**Response**	**Recommendation**
A	**I**			
❑	❑	Are local law enforcement and emergency response agencies familiar with the carrier's operation and types of hazardous materials transported?		
❑	❑	What procedures are in place to ensure hazardous materials shipments are transported without delay?		
❑	❑	What procedures are in place to review drivers' trip plan, routes, scheduled breaks, fuel stops, layovers, etc.?		

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SENSITIVE SECURITY INFORMATION

Hazmat Transportation and Handling			Response	Recommendation
❑	❑	Are drivers trained in the attendance requirements of motor vehicles transporting hazardous materials? Are these requirements being consistently complied with?		
❑	❑	Are drivers trained in the parking requirements of motor vehicles transporting hazardous materials? Are these requirements being consistently met?		
❑	❑	Are drivers provided with a point-of-contact and specific pick-up delivery information for all hazmat shipments?		
❑	❑	Does the carrier have the means/ability to contact/locate drivers 24 hours a day?		
❑	❑	How are safe hazmat pick ups and deliveries confirmed? Are they done in a consistent, timely, and accurate manner?		
Equipment and Facility Security			**Response**	**Recommendation**
A	**I**			
❑	❑	Are truck/tractor key security and control procedures in place? Have all drivers, operations and maintenance personnel been instructed in, and adhere to, these procedures?		
❑	❑	What procedures have been put in place to ensure that trucks/ tractors are never left unlocked or unattended, while idling in the yard?		
❑	❑	Are king pin locks used on all staged trailers containing hazardous material cargo? What other security measures are in place for such trailers?		
❑	❑	Do personnel conducting yard checks inspect all staged loaded trailers for seal tampering, or signs of attempted forced entry, and immediately report same?		
❑	❑	Are offices and records storage areas locked (or have other means to limit and control access), and secured (when not in use) at all times?		
❑	❑	Are visitor security procedures in place? Are all visitors required to log in and out? Are they escorted throughout their stay? Do they wear a “visitor” badge at all times while on company property?		
❑	❑	Is the reception area designed to prevent unauthorized or unobserved entry into the facility or terminal?		
❑	❑	Is emergency contact information readily available and/or posted (including phone numbers for local police and fire departments, and area and department managers)?		

IV. Security Checklist for the Receiver of Hazmat

Company Official: _____ **Title:** _____

Location: _____ **Audit Date:** _____

Next Audit (within 12 months): _____

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SENSITIVE SECURITY INFORMATION

(Note: Identify specific security risks for each individual location in the organization if they differ from the rest.)

Key: ***A = Adequate security I = Inadequate security****

* Responses and/or recommendations must be entered for all areas marked inadequate security.

Hazmat Storage and Handling			**Response**	**Recommendation**
A	**I**			
❑	❑	How are hazardous materials stored after receipt? Are they stored in a secure area that limits and controls access?		
❑	❑	Are hazardous materials handled or stored on site located in a secured area(s)? Are/do these locations: • Protected with alarm and/or other security systems? • Fenced in and locked at all times?Require authorized employees to sign in and out?		
❑	❑	How does the company verify that authorized and trained personnel only are available to receive and promptly store hazardous materials?		
❑	❑	What systems, procedures, or processes are in place that prohibits unauthorized and untrained employees access to areas containing hazmat?		
❑	❑	What procedures are in place for the refusal of suspicious or damaged packages?		
❑	❑	What systems, procedures, or processes are in place to monitor and control inventories of hazardous materials? What records are maintained?		
❑	❑	Have hazardous material(s) security receiving and storing checklists been developed and distributed to all hazmat employees? Are these checklists followed and used consistently?		
❑	❑	How often are inventories of hazardous materials audited?		
❑	❑	What reporting procedures are in place in the event of discrepancies are discovered during a hazardous materials audit?		
❑	❑	Are frequent and unscheduled (random) internal and external security inspections conducted?		
Training and Personnel			**Response**	**Recommendation**
A	**I**			
❑	❑	Have all hazardous materials receiving employees been trained, tested and certified according to the Hazardous Materials Regulations?		
❑	❑	Have all receiving personnel received general security awareness training, and does the company retain documentation of such training on file?		
❑	❑	Have all receiving personnel received training in how to recognize and disposal of suspicious packages? Does the company retain documentation of such training on file?		

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SENSITIVE SECURITY INFORMATION

Hazmat Storage and Handling			Response	Recommendation
❑	❑	Have all receiving personnel received training in how to recognize, confront, and/or deal with suspicious (aberrant) behavior? Does the company retain documentation of such training on file?		
❑	❑	Have all employees received emergency and security response training including (but not limited to) instructions on escape routes and notification, communication procedures, policies and procedures during DHS Threat Level and/or U.S. Coast Guard MARSEC Level changes? Does the company retain documentation of such training and drills on file?		
❑	❑	Are thorough background investigations being conducted on all hazmat employees?		
❑	❑	Are backgrounds checks periodically reviewed and updated on existing hazmat employees?		
❑	❑	Does the company conduct regular employee/management meetings to discuss and review security measures and awareness?		
Receiving Hazmat Shipments			**Response**	**Recommendation**
A	**I**			
❑	❑	What security procedures are in place to verify a hazardous materials delivery?		
❑	❑	How does the company verify the identity of the driver, and whether the identity matches the shipping records?		
❑	❑	Are driver's required to produce picture identification and their operator's or commercial driver's license (complete with hazmat endorsement)?		
❑	❑	What procedures are in place to check/inspect carriers' equipment for safety?		
Unloading and Securing Hazmat Shipments			**Response**	**Recommendation**
A	**I**			
❑	❑	What procedures are in place to ensure hazardous materials are being safely unloaded and securely stored?		
❑	❑	What procedures are in place to notify the shipper and carrier that the cargo has been received?		
❑	❑	What procedures are in place to inspect hazardous materials packaging and shipping documentation?		
❑	❑	Are deliveries of hazmat shipments verified and confirmed? How are discrepancies (missing and/or damaged) in deliveries handled?		

V. General Facility Security Checklist

Company Official: _____ **Title:** _____

Location: _____ **Audit Date:** _____

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SENSITIVE SECURITY INFORMATION

Next Audit (within 12 months): _____

(Note: Identify specific security risks for each individual location in the organization if they differ from the rest.)

Key: ***A = Adequate security I = Inadequate security****

* Responses and/or recommendations must be entered for all areas marked inadequate security.

General Questions			Response	Recommendation
A	**I**			
❑	❑	Is the facility/terminal located in an area of high, medium, or low populated?	H M L	
❑	❑	What is the distance from nearest: • Policy department? • Fire department? • Hospital? • Emergency response agency?		
❑	❑	What is the likely (average) response time for all of the above (in minutes)? Policy department? • Fire department? • Hospital? • Emergency response agency?		
❑	❑	Does the company conduct regular risk opportunity and vulnerability assessments of its hazardous materials operation?		
Internal Security Questions			**Response**	**Recommendation**
❑	❑	How many points of entry are there to the facility/terminal?		
❑	❑	Except for the main entrance, are all other points of access locked? Is access limited and controlled? All exit doors can be opened from the inside only to prevent unauthorized entry?		
❑	❑	Is there an alarm system for all interior access points?		
❑	❑	Has a key control process been established?		
❑	❑	Are all exterior windows kept clean and clear of obstructions that would restrict or prevent observation to outside activity. Are they secure from break in?		
❑	❑	Are visitor security procedures in place? Are all visitors are required to log in and out? Are they required to be escorted and wear a “visitor” badge at all times while on company property?		
❑	❑	Have all vendors and suppliers been thoroughly screened and has a list of their employees, along with other identifying information, been provided to the company?		
❑	❑	Are security/reception personnel present at all times during normal business hours?		

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SENSITIVE SECURITY INFORMATION

General Questions			Response	Recommendation
❑	❑	Is the reception area designed to prevent unauthorized or unobserved entry into the facility or terminal?		
❑	❑	Are all offices and records storage areas locked (or other means to limit and control access), and secured (when not in use) at all times?		
❑	❑	Is emergency contact information readily available and/or posted (including phone numbers for local police and fire departments, and area and department managers)?		
❑	❑	Are smoke/fire detectors in place throughout all facilities, and are they are in good working order?		
❑	❑	Is a formal process in place to report, communicate, and document security-related incidents? Does the process ensure that all security violations are accurately reported and documented in a timely manner?		
❑	❑	Have specific/standard procedures for closing and locking up the facility been established and implemented?		
External Security Questions			**Response**	**Recommendation**
A	**I**			
❑	❑	Is exterior/yard lighting sufficient and regularly maintained?		
❑	❑	Are employee/visitor parking areas well lighted, secure, and located away from the main terminal equipment yard?		
❑	❑	Is perimeter fencing regularly inspected, maintained as needed, and free of debris on both sides?		
❑	❑	Are security gates regularly inspected, maintained as needed, and free of debris on both sides?		
❑	❑	Are closed circuit TVs, surveillance cameras, or other yard security monitoring systems in place (if applicable)?		
❑	❑	Are landscaping trees, shrubs, and bushes so arranged as to not create places of concealment?		
❑	❑	Are restrictive signs clearly visible on all exterior doors, fencing, and gates?		
❑	❑	Is public access to facility/terminal yard controlled during normal operating hours, and restricted/prohibited during off hours and weekends?		
❑	❑	Has a relationship been established with law enforcement (police) such that regular drive-by patrols of the facility/terminal can be expected during off hours and over weekends?		
❑	❑	Are regular yard checks conducted according to policy and an established schedule? Are yard check logs reviewed regularly?		
❑	❑	Are regular yard security inspections made throughout the day and evening?		
❑	❑	Has a business watch network been established with neighboring companies?		
❑	❑	Is the facility/terminal security in compliance with all federal, state, and local laws and regulations?		

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SENSITIVE SECURITY INFORMATION

VI. Roles and Responsibilities Security Checklist

Company Official: _____ **Title:** _____

Location: _____ **Audit Date:** _____
Next Audit (within 12 months): _____

(Note: Identify specifi security risks for each individual location in the organization if they differ from the rest.)

Key: ***A = Adequate security I = Inadequate security****

* Responses and/or recommendations must be entered for all areas marked inadequate security.

General Questions			Response	Recommendation
A	**I**			
❑	❑	Does your security plan identify by job title and/or name the top management who is responsible for overall development and implementation of the security plan? Has the party changed since the last review of the security plan? Has the plan been updated accordingly?		
❑	❑	Does the plan identify which supervisors, departments, and locations have which security duties and who is responsible for implementing which portions of the plan? Has it been reviewed since the last update of the security plan? Has the plan been revised to reflec changes in staff, facilities, and operations?		
❑	❑	Does the plan identify which supervisors, departments, and locations must communicate which portions of the plan to the employees and the process of notifying them? Have the roles and responsibilities been reviewed since the last update to the security plan? Has the plan been revised to reflec changes in staff, facilities, and operations?		
❑	❑	Is the plan reviewed annually and updated accordingly? Is someone designated to begin the process?		
❑	❑	Does the plan include provisions for training hazmat employees in accordance with §172.704 (a)(4) and (a)(5)? Has someone been designated to review your training program annually, ensure all hazmat employees are trained accordingly, and make sure your plan reflect your current training program?		

VII. DHS National Terrorism Advisory System Security Checklist

Company Official: _____ **Title:** _____

Location: _____ **Audit Date:** _____
Next Audit (within 12 months): _____

(Note: Identify specifi security risks for each individual location in the organization if they differ from the rest.)

Key: ***A = Adequate security I = Inadequate security****

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SENSITIVE SECURITY INFORMATION

General Questions			Response	Recommendation
A	I			
❑	❑	Does your security plan identify by job title(s) and/or name(s) the personnel who are responsible for monitoring the DHS National Terrorism Advisory System for credible threats? Has the party changed since the last review of the security plan? Has the plan been updated accordingly?		
❑	❑	Does the plan identify the communication methods used to monitor the DHS National Terrorism Advisory System and their expiration dates? Has a team been assembled to review Elevated and Imminent threats to determine how or if they will impact your motor carrier, shippers, receivers, or vendors? Has the plan been reviewed since the last update of the security plan? Has the plan been revised to reflec changes in staff, facilities, and operations?		
❑	❑	Does the plan identify the methods of communicating Elevated or Imminent threats to drivers on the road? Employees on site? Off-duty employees? Vendors? and Customers? Does your plan identify who will communicate the changes in procedures and when the threat has expired? Has this been reviewed since the last update to the security plan? Has the plan been revised to reflec changes in staff, facilities, and operations?		

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FMCSA Security Contact Form

The following form is used by the FMCSA as they conduct compliance reviews on motor carriers that haul hazardous materials. The points contained in this form offer insight as to what is expected of a carrier by the FMCSA and can be used in conjunction with preceding checklists as a Plan is developed.

Form Version: 1.4G

Federal Motor Carrier Safety Administration
U.S. Department of Transportation

Security Contact Review

Company Name:

Address:

city | state (2-letter) | zip code

USDOT Number: Date SCR Initiated: mm/dd/yyyy **at about** use arrows for start time

Select Division: Select One Conducted By: SI Code: "US0000"

Note: shaded boxes indicate regulatory requirements.

IAW = in accordance with

Instructions:

- ► Treat this document as **Sensitive Security Information (SSI) [Need to Know Basis]**. For SSI guidelines, see **Volume II, Chapter 4, paragraph 1, subparagraph d** of the FOTM for compliance procedures for handling security information.
- ► All "No" responses require explanation in the comment section.
- ► If a question involves several parts, only check "Yes" if ALL conditions are met; otherwise, check "No" and discuss in the comment section.
- ► Use the company's USDOT number as the filename for this document (example: "0000000.xls");
- ► Append additional characters if necessary to avoid overwriting older SCRs for the same company.

Applicability

1) Does the organization fall under the provisions of 49 CFR 172.800 requiring the development and implementation of security plans? ○ Yes ○ No Comments:

Security Assessment

2) Has a specific assessment of possible transportation security risks for HM shipments been performed IAW 49 CFR 172.802(a)? ○ Yes ○ No Comments:

3) Does this Security Assessment adequately capture the specific threats and vulnerabilities faced by this organization IAW 49 CFR 172.802(a)? ○ Yes ○ No Comments:

4) Does the Security Assessment adequately capture the specific threats and vulnerabilities of personnel security IAW 49 CFR 172.802(a)(1)? ○ Yes ○ No Comments:

5) Does the Security Assessment adequately capture the specific threats and vulnerabilities of unauthorized access IAW 49 CFR 172.802(a)(2)? ○ Yes ○ No Comments:

6) Does the Security Assessment adequately capture the specific threats and vulnerabilities of en route security IAW 49 CFR 172.802(a)(3)? ○ Yes ○ No Comments:

7) Does the organization periodically assess its security posture IAW 49 CFR 172.802(b)? ○ Yes ○ No Comments:

Security Plan

8)	Does the Security Plan correlate to the Security Assessment in question 2 above IAW 49 CFR 172.802(a)?	○ Yes ○ No	Comments:
9)	Is the Security Plan "specific" to the organization IAW 49 CFR 172.802?	○ Yes ○ No	Comments:
10)	Is there a written procedure on actions to take in the event of a security breach (see 49 CFR 172.704(a)(5))?	○ Yes ◉ No	Comments:
11)	Does the organization have an Oil Spill Prevention and Response Plan IAW 49 CFR Part 130?	○ Yes ○ No ○ NA	Comments:

Personnel Security

12)	Does the Security Plan contain a section addressing personnel security IAW 49 CFR 172.802(a)(1)?	○ Yes ○ No	Comments:
13)	Is the Security Plan's approach to personnel security operation specific IAW 49 CFR 172.802(a)?	○ Yes ○ No	Comments:
14)	Are the Security Plan's personnel security measures appropriate for the security assessment as written IAW 49 CFR 172.802(a)?	○ Yes ○ No	Comments:
15)	Are the Security Plan's personnel security measures adequate IAW 49 CFR 172.802(a) even if the security assessment did not identify all risks?	○ Yes ○ No	Comments:
16)	Are the Security Plan's personnel security measures being followed IAW 49 CFR 172.800(b)?	○ Yes ○ No	Comments:
17)	Do all drivers required by 49 CFR 383.23(a) to have valid CDLs with required endorsements have them?	○ Yes ○ No ○ NA	Comments:
18)	Does the organization conduct required background checks on drivers IAW 49 CFR 391.23?	○ Yes ○ No ○ NA	Comments:
19)	Does the organization take measures to confirm information provided by job applicants hired for positions that involve access to and handling of the HM covered by the Security Plan IAW 49 CFR 172.802(a)(1)?	○ Yes ○ No	Comments:

Unauthorized Access

20)	Does the Security Plan contain a section addressing unauthorized access IAW 49 CFR 172.802(a)(2)?	○ Yes ○ No	Comments:

I

21)	Is the Security Plan's approach to unauthorized access operation specific IAW 49 CFR 172.802(a)?	○ Yes ○ No	Comments:
22)	Are the Security Plan's unauthorized access measures appropriate for the security assessment as written IAW 49 CFR 172.802(a)?	○ Yes ○ No	Comments:
23)	Are the Security Plan's unauthorized access measures adequate IAW 49 CFR 172.802(a) even if the security assessment did not identify all risks?	○ Yes ○ No	Comments:
24)	Are the Security Plan's unauthorized access measures being followed IAW 49 CFR 172.800(b)?	○ Yes ○ No	Comments:

En Route Security

25)	Does the Security Plan contain a section addressing en route security IAW 49 CFR 172.802(a)(3)?	○ Yes ○ No	Comments:
26)	Is the Security Plan's approach to en route security operation specific IAW 49 CFR 172.802(a)?	○ Yes ○ No	Comments:
27)	Are the Security Plan's en route security measures appropriate for the security assessment as written IAW 49 CFR 172.802(a)?	○ Yes ○ No	Comments:
28)	Are the Security Plan's en route security measures adequate IAW 49 CFR 172.802(a) even if the security assessment did not identify all risks?	○ Yes ○ No	Comments:
29)	Are the Security Plan's en route security measures being followed IAW 49 CFR 172.800(b)?	○ Yes ○ No	Comments:

Security Plan Administration

30)	Is the Security Plan written IAW 49 CFR 172.802(b)?	○ Yes ○ No	Comments:
31)	Is the Security Plan retained IAW 49 CFR 172.802(b)?	○ Yes ○ No	Comments:
32)	Are copies of the Security Plan (or relevant portions of it) available to employees who are responsible for implementing it IAW 49 CFR 172.802(b)?	○ Yes ○ No	Comments:
33)	Are all copies of the Security Plan updated and revised as necessary to reflect changing circumstances IAW 49 CFR 172.802(b)?	○ Yes ○ No	Comments:

Security Training

34)	Does the training program contain Security Awareness Training IAW 49 CFR 172.704(a)(4)?	○ Yes ○ No	Comments:
35)	Has Security Awareness Training been provided to all hazmat employees no later than the date of the first scheduled training after March 25, 2003 or by March 24, 2006 IAW 49 CFR 172.704(a)(4)?	○ Yes ○ No	Comments:
36)	Does the Training Material contain In-Depth Security Training IAW 49 CFR 172.704(a)(5)?	○ Yes ○ No	Comments:
37)	Has In-Depth Security Training been provided to all hazmat employees with responsibility for implementing the Security Plan by December 22, 2003 IAW 49 CFR 172.704(a)(5)?	○ Yes ○ No	Comments:
38)	Does the In-Depth Security Training Material contain company security objectives IAW 49 CFR 172.704(a)(5)?	○ Yes ○ No	Comments:
39)	Does the In-Depth Security Training Material contain organization-specific security procedures derived from the Security Plan for personnel security IAW 49 CFR 172.704(a)(5)?	○ Yes ○ No	Comments:
40)	Does the In-Depth Security Training Material contain organization-specific security procedures derived from the Security Plan for unauthorized access IAW 49 CFR 172.704 (a)(5)?	○ Yes ○ No	Comments:
41)	Does the In-Depth Security Training Material contain organization-specific security procedures derived from the Security Plan for en route security IAW 49 CFR 172.704(a)(5)?	○ Yes ○ No	Comments:
42)	Does the In-Depth Security Training Material contain employee responsibilities IAW 49 CFR 172.704(a)(5)?	○ Yes ○ No	Comments:
43)	Does the In-Depth Security Training Material contain actions to take in the event of a security breach IAW 49 CFR 172.704(a)(5)?	○ Yes ○ No	Comments:
44)	Does the In-Depth Security Training Material contain the organizational security structure IAW 49 CFR 172.704(a)(5)?	○ Yes ○ No	Comments:
45)	Is the Security Training Program correctly administered IAW 49 CFR 172.704 (c) and (d)?	○ Yes ○ No ○ NA	Comments:

Acknowledgement

The following company representative acknowledges receipt of a copy of this Security Contact Review:

Name: _____

Title: _____

Signature: _____ Date: _____

END

Reserved

TABLE OF CONTENTS

STATE REQUIREMENTS

Reserved

This section of the manual presents an overview of each individual state's hazardous materials regulations. The states are presented in alphabetical order containing the following information, when available from the state:

Relationship to the federal regulations— Lists the parts of 49 CFR adopted by the state and the dates of the adoption, when applicable;

License/permit/registration— Lists special licenses/permits/registrations required to transport hazardous materials and hazardous wastes in or through the state;

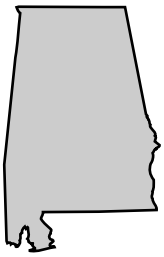
Routing— Lists routes established to transport hazardous materials on the state level and preferred routes identifie by the state for the transport of highway route controlled radioactive materials. In special instances, the routing requirements on a County or City level are included when acknowledged by the state;

Safe havens— Lists areas approved by local or state authorities for the parking of unattended vehicles containing Division 1.1, 1.2 or 1.3 (Class A or Class B) explosive materials;

Special requirements— Lists any special hazardous materials requirements imposed on the state level; and

Agencies— Lists the addresses and telephone numbers of the agencies involved in the promulgation and/or enforcement of regulations governing the transportation of hazardous materials and hazardous wastes.

Reserved



ALABAMA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. This change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

Alabama motor carrier rule 17.001 requires each motor carrier engaged in the transportation of explosives, hazardous materials, or hazardous wastes, as define by the United States Department of Transportation, must comply with the United States Department of Transportation regulations governing carriage by public highway of explosives and hazardous materials.

The Department of Public Safety has adopted the Federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 107 (Subpart B), 171-180, and Parts 383 and 390-399 of the Federal Motor Carrier Safety Regulations, as they may be amended. These regulations firs became effective June 27, 1986 and apply to all motor carriers both interstate and intrastate.

The Alabama Public Service Commission and the Department of Public Safety exercise regulatory control over the transportation of hazardous materials in the state.

The Department of Environmental Management has been designated as the lead agency in developing and administering the hazardous waste program in the state.

License/Permit/Registration

No state permit is required to transport hazardous materials at this time.

Transporters of hazardous waste and/or used oil in Alabama are required to obtain a permit from the Department of Environmental Management.

Routing

Carriers and any person operating a motor vehicle containing a package of highway route controlled quantity radioactive materials as define in Title 49, Code of Federal Regulations, Section 173.403(1) must ensure that the vehicle operates over preferred routes as described in Title 49, Code of Federal Regulations, Section 177.825(b)(1).

Unless otherwise indicated, the preferred routes listed below may be used IN ADDITION TO all interstate highway systems (and beltways or bypasses around cities, which are required to be used). Where preferred routes have been designated IN LIEU OF an Interstate Highway System, that fact is indicated below.

Effective September 27, 1993:

Interstate-20/Interstate-59 Jefferson County
Interstate-459 on lieu of Interstate-20/Interstate-59 in Birmingham area.

Interstate-65 southbound to Interstate-10 eastbound Mobile County
Interstate-65, AL 158, U.S. 43, Alternate U.S. 90 (Cochran, Africatown Bridge) Interstate-10. This route is subject to change with the opening of Interstate-165 in the Mobile area.

Interstate-10 east/west Mobile county

Interstate-10, Water Street, U.S. 43, Alternate U.S. 90 Cochran, Africatown Bridge Interstate-10.

Safe Havens

The following safe haven has been approved by local government (City of Lincoln) and evaluated/recognized by the Alabama Department of Public Safety.

Tri-State Motor Transit
From I-20 take the Talledega/Lincoln exit 168.
Go 2.9 miles north on Alabama 77, turn right on gravel road.
Lincoln, Alabama.

Special Requirements

There are no special requirements at this time.

Agencies

Public Service Commission
State Office Building
P.O. Box 991
Montgomery, Alabama 36101
Telephone: (334) 242-5176

Department of Public Safety
Motor Carrier Safety Unit
P.O. Box 1511
Montgomery, Alabama 36102
Telephone: (334) 242-4395
Fax: (334) 277-3285
Web: www.dps.alabama.gov/mc

Department of Environmental
Management - Land Division
P.O. Box 301463
Montgomery, Alabama 36130-1463
Telephone: (334) 271-7700
Fax: (334) 279-3050
Web: www.adem.state.al.us

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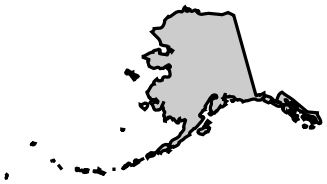


ALASKA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. This change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The Alaska Administrative Code states that a person driving a commercial motor vehicle upon a highway or vehicular way or area shall comply with the transportation of hazardous materials regulations promulgated by the United States Department of Transportation. Alaska has adopted by reference the federal Hazardous Materials Regulations and the Federal Motor Carrier Safety Regulations, Title 49, Code of Federal Regulations, Parts 100-199 and 200-999, as amended as of October 1, 1995. The Federal Regulations apply to any movement, regardless of the distance of the movement in the state of Alaska.

The transportation of hazardous materials by highway is regulated by the Alaska Department of Transportation and Public Facilities.

The Department of Environmental Conservation has been designated as the lead agency in developing the hazardous waste management program. The state does not currently fund or staff a separate program. The US Environmental Protection Agency (EPA) administers the Federal hazardous waste management program in the state.

License/Permit/Registration

None at this time.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180, and 397.

Safe Havens

None at this time.

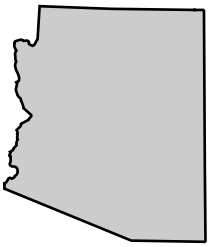
Special Requirements

A person intending to transport a hazardous material listed in 49 C.F.R. 172.504 (Table 1), on a highway or a vehicular way or area, shall notify the nearest office of the Alaska DOT Measurement Standards & Commercial Vehicle Enforcement (MS/CVE) Permits Section, of the intent to transport the materials at least 24 hours before transporting the material. The notice must identify the date, approximate time, and route by which the material will be transported, and the telephone number of the person who is responsible for the transportation of the material. The materials must be transported on the date and by the route identifie in the notice. Permission to transport the materials must be obtained from the MS/CVE Permits Section before the transport. The DOT may deny permission to transport the material or require the material to be transported on an alternative date or by an alternative route.

Agencies

State of Alaska
Department of Transportation & Public Facilities
Division of Measurement Standards and Commercial Vehicle Enforcement
11900 Industry Way, Building M
Anchorage, Alaska 99515
Telephone: (907) 365-1210
Fax: (907) 365-1220
Web: http://dot.alaska.gov/mscve/main.cfm?go=cve

Hazardous Waste Management
Department of Environmental Conservation
410 Willoughby Avenue - Suite 105
Juneau, Alaska 99801-1795
Telephone: (907) 465-5150/5151



ARIZONA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect Arizona's most current adoption/incorporation.

The Arizona Department of Transportation has adopted the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 107, 171-173, 177, 178, and 180, amended, revised and printed on October 1, 2005, and the sections of the October 1, 1991, edition authorized for use under the transitional provisions of section 171.14 of the October 1, 2005, edition. The Arizona Department of Transportation has also adopted Part 397 of the Federal Motor Carrier Safety Regulations as amended, revised and printed on October 1, 2005.

The transportation of hazardous materials regulations are issued by the Arizona Department of Transportation. The Department of Public Safety and political subdivisions trained and certifie by the Department of Public Safety are responsible for enforcing the regulations.

The Department of Environmental Quality has been designated as the lead agency in developing and administering a hazardous waste management program in Arizona.

Transporters of hazardous waste must comply with CFR 40 Part 263, the Arizona Revised Statutes, and the Arizona Administrative Code.

License/Permit/Registration

No permit is required for transportation of hazardous materials.

Transporters who pick up and deliver hazardous waste in Arizona are required to register annually with the Arizona Department of Environmental Quality, and pay a $200 annual fee.

Transporters of hazardous waste may submit copies of hazardous waste manifests on a monthly basis, but manifests do not have to be submitted until 30 days following the end of the month of shipment. (A.A.C. R18-8-263(D)). Transporters must use the new manifest form approved by EPA.

Routing

Placarded loads of hazardous materials are prohibited on Interstate 10 between Seventh Street and Seventh Avenue in Phoenix, Arizona. Signs are posted indicating that it is a prohibited route. Interstate 17 is the designated alternate route.

Placarded loads are prohibited on State Route 202 between McClintock, Dobson Road, and University Avenue on State Route 101.

Safe Havens

None at this time.

Special Requirements

None at this time.

Agencies

Arizona Department of Public Safety
P.O. Box 6638
Phoenix, Arizona 85005
Telephone: (602) 223-2522
Fax: (602) 223-2980

Arizona Department of Environmental
Quality
1110 West Washington Street
Phoenix, Arizona 85007-2935
Telephone: (602) 771-4232
Fax: (602) 771-4138
Web: http://www.adeq.state.az.us/

ARKANSAS

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a final rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specifically relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflects this state's most current adoption/incorporation.

Every carrier of hazardous materials shall comply with the 1976 federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 100-199 and Part 397 of the Federal Motor Carrier Safety Regulations, as amended. The transportation of hazardous materials is regulated by the Arkansas Highway Police Division.

The Department of Environmental Quality has been designated the lead agency in administering the hazardous waste management program in Arkansas.

License/Permit/Registration

Intra-state carriers transporting hazardous materials other than ethylene glycol, antifreeze, gasoline, diesel, liquefied petroleum gas, kerosene, aviation gasoline, and jet fuel must register within the Arkansas State Highway and Transportation Department, Legal Division, P.O. Box 2261, Little Rock, AR 72203-2261.

Permits are required by the Arkansas Highway Police for transporters hauling hazardous waste in or through the state of Arkansas.

Permits or other regulations promulgated by PHMSA or FMCSA pursuant to HM transportation by highway will be incorporated into state law by reference.

Safe Havens

None at this time.

Routing

The movement of hazardous materials is prohibited in Pulaski County on Interstate-30 from its intersection with Interstate-40 in North Little Rock to its intersection with Interstate 530 in Little Rock, and Interstate-630 in its entirety. Hazardous materials transportation should instead be routed onto Interstate-440 and Interstate-430. However, any vehicle making delivery of a hazardous material manifested for delivery into the hazardous materials restricted area shall be allowed to make appropriate use of the restricted area to make the delivery.

Carriers and any person operating a motor vehicle containing a package of highway route controlled quantity radioactive materials as defined in Title 49, Code of Federal Regulations, Section 173.403(1) must ensure that the vehicle operates over preferred routes as described in Title 49, Code of Federal Regulations, Section 177.825(b)(1).

Unless otherwise indicated, the preferred routes listed below may be used IN ADDITION TO all interstate highway systems (and beltways or bypasses around cities, which are required to be used). Where preferred routes have been designated IN LIEU OF an Interstate Highway System, that fact is indicated below.

Effective November 28, 1988:

Memphis to Fort Smith:
Interstate-40 to the Oklahoma state line.

Memphis to Texarkana:
Interstate-40 to Interstate-440 (in lieu of Interstate-430, Interstate-630 or that portion of Interstate-30 connecting Interstate-40 to Interstate-440).
Interstate-30 to the Texas state line.

Special Requirements

There are no special requirements.

Agencies

Arkansas Highway Police Division
P.O. Box 2779
Little Rock, Arkansas 72203
Telephone: (501) 569-2421
Fax: (501) 569-4999
Hazwaste permits: (501) 569-2546 or www.arkansashighways.com

Arkansas Department of Environmental Quality
Hazardous Waste Division
Telephone: (501) 682-0833

Reserved

CALIFORNIA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

California has incorporated by reference portions of the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 107, 171-180 and 393 relating to rear end protection for tank vehicles as referenced in Title 49, Code of Federal Regulations, Part 178, in effect on October 1, 1999. Parts Parts 174 and 179 shall apply only as referenced in Parts 173, 177 and 178. These regulations apply to any truck, or any combination of a truck and any other vehicle, transporting hazardous materials (interstate or intrastate). The transportation of hazardous materials is regulated primarily by the California Highway Patrol.

Carriers, drivers, and vehicles engaged in the transportation of hazardous substances or hazardous wastes shall be subject to the following Federal Motor Carrier Safety Regulations contained in Title 49, CFR: 392.16, 392.42, 392.60, 393.86, 393.93, 396.11, 396.13, 396.17, 397.17, 397.19, and 397.67 as they existed on October 1, 1997. The state has adopted the October 1, 1999, edition of the Hazardous Materials Regulations (HMR), but does allow compliance with the current HMR.

The California Division of Occupational Safety and Health has regulations for the transportation of liquefie petroleum gas in any pressure vessel. These regulations do not apply to pressure vessels of 30 gallons capacity or less, or portable tanks or cylinders used, inspected and maintained in accordance with DOT regulations. Also, except for packaging requirements for cargo tanks, all the Highway Patrol hazardous materials regulations apply.

In addition to the California Highway Patrol's regulations, the California Department of Toxic Substances Control (DTSC) has regulations for the transportation of radioactive materials and hazardous wastes.

License/Permit/Registration

Every motor carrier (intrastate and interstate) who transports a hazardous material requiring the display of placards and every motor carrier who transports for a fee in excess of 500 pounds of hazardous material of a type requiring placards, unless specificall exempted, must have a hazardous materials transportation license. The fee for a new license is $100 and the fee for annual renewal is $75. Contact the California Highway Patrol at (916) 327-5039.

The California Air Resources Board is responsible for the gasoline cargo tank vapor recovery certificatio program. Each year any owner/operator of gasoline cargo tanks operating within the state which are required to have a vapor recovery system must undergo specifi vapor recovery certificatio tests and fil an application in order to obtain Air Resources Board certificatio and a decal which is valid for one year. The current application fee is $20 for each cargo tank; $40 for late renewals. Contact the Air Resources Board, Compliance Division, Certification/Investigatio Section at (916) 327-1524.

The Division of Occupational Safety and Health requires a permit for any pressure vessel used for the transportation of liquefie petroleum gas. However, pressure vessels of 30 gallons capacity or less, or portable tanks or cylinders used, inspected, and maintained in accordance with DOT regulations are exempt from the permit requirement. Before receiving a permit an engineer must inspect the pressure vessel(s). The fee for an inspection is $135 an hour (a minimum fee of $135 for one vessel). The permit and inspection must be renewed every fiv years. Contact the Department of Industrial Relations at (510) 622-3052, or (714) 939-0434.

Transporters of hazardous waste are required to register with the Department of Toxic Substances Control prior to engaging in the business of transporting hazardous waste in California. Contact the Department of Toxic Substances Control, Transportation Section, at (916) 255-4368. The DTSC website is at http://www.dtsc.ca.gov/HazardousWaste/Transporters/index.cfm.

Routing

The following applies to the highway transportation of hazardous materials and hazardous waste for which the display of placards or markings is required. There are additional provisions for the transport of specifi hazardous materials pursuant to Section 31616 (Explosives), Section 32100 (Inhalation hazards), or Section 33000 (Radioactive materials) of the Vehicle Code.

(1) The transportation shall be on state or interstate highways which offer the least overall transit time whenever practicable.

(2) The transporter shall avoid, whenever practicable, congested thoroughfares, places where crowds are assembled, and residence districts.

(3) Vehicles used for the transportation shall not be left unattended or parked overnight in a residence district.

(4) When transporting hazardous waste pursuant to Section 25169.3 of the Health and Safety Code, all provisions of the waste hauler transportation safety plan, as approved by the State Department of Toxic Substances Control, shall be complied with.

(5) Transportation which deviates from the routes required by this section shall not be excused on the basis of operating convenience.

(6) Notwithstanding (1) and (2), vehicles engaged in the transportation may also use any of the following highways:

- Highways which provide necessary access to local pickup or delivery points consistent with safe vehicle operation.
- Highways which provide reasonable access to fuel, repairs, rest, or food facilities that are designed and intended to accommodate commercial vehicle parking, when that access is consistent with safe vehicle operation and when the facility is within one-half road mile of points of entry or exit from the state or interstate highway being used.
- Highways restricted or prohibited pursuant to this section when no other lawful alternative exists.

EXPLOSIVE ROUTES AND STOPPING PLACES

Transporters of Class 1.1, 1.2, 1.3, and 1.6 explosives are to use the explosive routes, safe stopping places, and safe parking places established by the Highway Patrol. These designated routes, stopping and parking places are listed in the California Highway Patrol's publication "Explosive Materials Shipments: Routes, Safe Stopping Places and Safe Parking Places" (HPH 84.3). The publication may be purchased from the California Highway Patrol, Publications Unit, P.O. Box 942898, Sacramento, CA 94298-0001.

INHALATION HAZARD ROUTES AND STOPPING PLACES

Transporters of inhalation hazards in bulk containers are to use the inhalation hazard routes and stopping places established by the Highway Patrol. These designated routes and stopping places are listed in the California Highway Patrol's publication "Inhalation Hazard Shipments: Routes and Stopping Places (HPH 84.5). The publication may be purchased from the California Highway Patrol, Publication Unit, P.O. Box 942898, Sacramento, CA 94298-0001.

HIGHWAY ROUTE CONTROLLED QUANTITY SHIPMENTS OF RADIOACTIVE MATERIALS

Routing requirements for the through transportation of Highway Route Controlled Quantity Shipments of Radioactive Materials are found in Title 13, Division 2, Chapter 6, Article 2.7, California Code of Regulations. Carriers and drivers shall comply with the requirements of 49 CFR, Section 397.101.

Safe Havens

None at this time.

Special Requirements

The state of California requires that transporters of placarded amounts of hazardous materials have a two-way communication device (a radio, cellular telephone, or other similar device that permits communication between the driver and personnel responsible for the safety operations of the motor carrier) and that the enclosed cargo body (not a tank or fla bed) be locked and remained locked during transport. For additional information, refer to the California Vehicle Code, Division 14.1 Transportation of Hazardous Materials, Chapter 1. Licensing, Section 32001 Inspection of Containers: Requirements for Transporting, or contact the California Highway Patrol.

Any person who dumps, spills or causes the release of hazardous material or hazardous waste upon any highway shall notify the California Highway Patrol or the agency having traffic jurisdiction for that highway of the dump, spill, or release, as soon as the person has knowledge of the dump, spill, or release and notificatio is possible.

Agencies

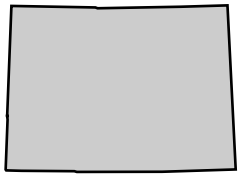
Commercial Vehicle Section
California Highway Patrol – 062
P.O. Box 942898
Sacramento, California 94298-0001
Telephone: (916) 731-6300
Fax: (916) 446-4579
Web: www.chp.ca.gov/index.html

Division of Occupational Safety and Health
1515 Clay Street, Suite 1302
Oakland, California 94612
Telephone: (510) 622-3052
Web: www.dir.ca.gov

Department of Toxic Substances Control Transportation Section
8800 Cal Center Drive
Sacramento, California 95826
Telephone: (916) 255-4368

Department of Motor Vehicles
P.O. Box 942890
Sacramento, California 94290-0001
Telephone: (916) 657-6483

Air Resources Board
Compliance Division
P.O. Box 2815
Sacramento, California 95812
Telephone: (916) 327-1524



COLORADO

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect Colorado's most current adoption/incorporation.

The Colorado State Patrol has adopted by reference the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 107, 171-173, 177, 178, 180, and Parts 387, and 397 of the Federal Motor Carrier Safety Regulations, as they were on October 1, 2011. The adoption went into effect on April 30, 2012.

The transportation of hazardous materials is regulated by the Colorado State Patrol.

The Colorado Department of Public Health and Environment is responsible for making rules and regulations regarding hazardous waste in the state.

License/Permit/Registration

No transportation of hazardous materials by motor vehicles which require placarding under Title 49, Code of Federal Regulations, Parts 172 or 173 shall take place in, to, from, or through the state until the Public Utilities Commission issues a permit authorizing the applicant to operate or move upon the public roads of the state. This shall not apply to motor vehicles owned by the federal government, used to transport to or from the farm or ranch site products used for agricultural production, or farm machinery which is exempted from registration requirements, unless such vehicles are used in the furtherance of any commercial business other than agriculture.

A permit application must be submitted to the Public Utilities Commission before an annual permit can be issued. The annual permit fee ranges from $10 to $400 depending on the

number of flee vehicles operating in the state. A single trip permit may be obtained at all port of entry weigh stations. The permit shall be issued upon the approval of the permit application and upon payment of a $25 fee.

No special permit or registration is required for transporters of hazardous waste. However, transporters of hazardous waste are required to have an EPA Identificatio Number. Please note the EPA ID number requirement is for transporters transporting regulated hazardous wastes, not for all materials regulated as hazardous materials. Also, you may contact the Colorado Public Utilities Commission directly at (303) 894-2000.

No carrier shall transport nuclear materials into, within, through, or out of the State of Colorado until a nuclear materials transportation permit authorizing such transportation has been issued. This permit is issued by the Colorado Public Utilities Commission.

The annual permit fee is $500 and each permit is valid for one year from the date of issuance. In addition to the annual permit fee, each carrier must pay a $200 fee for each shipment that is transported. Fees may be paid by mail to the Colorado Public Utilities Commission and postmarked seven days prior to the date the shipment is made or at the time the shipment enters the state (at the Port of Entry weigh station nearest the point at which the shipment enters the state).

If the shipment originates within the state, payment shall be made at the Port of Entry weigh station nearest the point of shipment origination, or mailed to the Colorado Public Utilities Commission and postmarked seven days prior to the date the shipment is made.

A carrier transporting nuclear materials who enters the state without having obtained an annual permit, shall obtain a single trip permit at the Port of Entry nearest the point it enters the state. The fees for the single trip permit are the same as for the annual permit. The carrier must complete an application for an annual permit, filin within 30 days of the date that the single trip permit was issued. If the filin is made within the 30 days, the fee collected for the single trip permit will be credited to the annual permit application.

Routing

Hazardous Materials Designated Routes

Hazardous Materials Designated Routes have been established and are enforced by the State Patrol. The following Hazardous Materials Designated Routes were adopted May 30, 1988.

North-south routes

Colorado 9 from US 40 in Kremmling to Interstate 70 in Silverthorne.

Colorado 13 from Wyoming to County Road 183 north of Craig.

Colorado 13 from US 40 west of Craig south to US 6 west of Rifle

Colorado 17 from US 285 near Mineral Hot Springs to US 160 near Alamosa.

Interstate 25 from Wyoming to New Mexico.

Colorado 47 from Interstate 25 to the junction of US 50/Colorado 96.

Colorado 71 from Nebraska to Colorado 14.

Colorado 71 from Colorado 14 to US 24 in East Limon (east junction).

Colorado 71 from US 24 in Limon (west junction) to US 50 near Rocky Ford.

Colorado 79 from Colorado 52 to Interstate 70 at Bennett.

Colorado 83 from US 24 to Colorado 115.

Colorado 91 from Interstate 70 to US 24 near Leadville.

Colorado 113 from Nebraska to US 138.

Colorado 115 from Colorado 83 to US 50.

Colorado 119 from Colorado 157 to Colorado 52.

Colorado 125 from Wyoming to US 40 west of Granby.

Colorado 127 from Wyoming to Colorado 125.

US 138 from Colorado 113 to US 6 (Chestnut Street) in Sterling.

Colorado 139 from Colorado 64 in Rangely to Interstate 70 near Loma.

Colorado 141 from US 50 to US 491.

Colorado 141 from Interstate 70 business loop near Grand Junction to US 50.

Colorado 157 from US 36 to Colorado 119.

Interstate 225 from Interstate 70 to Interstate 25.

US 85 from Wyoming to Interstate 76.

US 285 from Colorado 112 to US 160.

US 285 from US 160 in Alamosa to New Mexico.

US 285 from Colorado 470 to Colorado 112.

US 287 from US 40 in Kit Carson to Oklahoma.

US 385 from the Interstate 76 in Julesburg to US 40 in Cheyenne Wells.

US 491 from Utah to New Mexico.

The City of Lamar's Second Street from US 50/385 to Maple Street.

The City of Lamar's Maple Street from Second Street to US 50/287.

The City of Craig's Great Divide Road from US 40 north to the city limit.

Moffat County Road 7 (Great Divide Road) from the Craig City limit north to Moffat County Road 183.

Moffat County Road 183 from Moffat County Road 7 (Great Divide Road) east to Colorado 13.

East-west routes

US 6 (Loveland pass) from Interstate 70 just east of the Eisenhower/Johnson Tunnels to just west of the Eisenhower/Johnson Tunnels at Silverthorne.

US 6 from Colorado 13 west of Rifl to exit/entrance number 87 on Interstate 70.

US 6 from Colorado 14 (Main Street) in Sterling to Nebraska.

Colorado 10 from Interstate 25 in Walsenburg to US 50 in La Junta.

Colorado 14 from US 40 to Colorado 125.

Colorado 14 from Interstate 25 to US 6 in Sterling.

US 24 from Colorado 91 at Leadville to Interstate 25 in Colorado Springs.

US 24 from Colorado 83 to Interstate 70 at West Limon (Exit 359).

US 34 from Interstate 25 to Interstate 76.

US 34 from the west junction of Colorado 71 to Nebraska.

US 36 from Interstate 25 to Colorado 157.

US 36 from Interstate 70 in Byers to Kansas.

US 40 from Utah to the intersection of Colorado 13 west of Craig.

US 40 from Moffat County Road CG 2 (First Street) just east of Craig to Interstate 70.

US 24 business route from US 24 on the west side of Limon to the west junction of Colorado 71.

US 40 from Interstate 70 (Exit 363) in Limon to Kansas.

US 24 business route from the east junction of Colorado 71 (in Limon) to Interstate 70 (Exit 363).

US 50 from the north junction of Colorado 141 near Grand Junction to Kansas.

Colorado 52 from Colorado 119 to Colorado 79.

Colorado 64 from US 40 in Dinosaur to Colorado 13.

Interstate 70 from Utah to US 6 at Silverthorne (Loveland Pass).

Interstate 70 from US 6 just east of Loveland Pass to Interstate 25.

Interstate 70 from Interstate 270 to Kansas.

Interstate 70 business route from Interstate 70 east of Grand Junction to Colorado 141.

Interstate 76 from Interstate 25 to Nebraska.

Colorado 112 from US 285 to US 160.

US 160 from New Mexico to Interstate 225 business route in Walsenburg, south to Exit 49 of Interstate 25.

Interstate 270 from Interstate 70 to Interstate 76.

Colorado 470 from US 285 to Interstate 70.

US 550 from US 160 to New Mexico.

The City of Craig's 1st Street from Colorado 13 east to the city limit at Colorado 394.

Moffat County Road CG 2 (First Street) from the Craig City limit at Colorado 394 east to US 40.

Safe Havens

None at this time.

Special Requirements

Motor vehicles define as "longer vehicle combinations" (any of several vehicle configura tions including a truck or truck tractor as a power unit and one or more trailer combinations are prohibited from transporting the following specifie hazardous material types and quantities:

(1) Any hazardous material define in Title 49, Code of Federal Regulations, Part 172.504, Table 1.

(2) Any hazardous material define in Title 49, Code of Federal Regulations, Part 172.504, Table 2, that:

(a) Exceeds 55 gallons per package.

(b) Is transported in bulk quantities (containment system in excess of 3500 water gallons). This does not apply to the following petroleum based products when transported in bulk quantities in a longer vehicle combination): Aviation fuel, UN1863; Gasoline, UN1203; Diesel Fuel, NA1993; Crude Oil, UN1267; and Liquifie Petroleum Gas, UN1075.

(c) Is classifie as a "Poison-Inhalation Hazard" as define in Title 49, Code of Federal Regulations, Section 173.133(b).

(d) Requires evacuation of populated areas as specifie in the "1996 North American Emergency Response Guidebook."

Any person transporting nuclear materials within Colorado must carry a copy of their nuclear materials transportation permit in the vehicle.

For shipments entering the state: All motor vehicles carrying nuclear materials and entering the state on public roads shall be inspected by officers of the Colorado State Patrol nearest the point at which the shipment enters the state or at a location specifie by the Colorado State Patrol. Shipments originating within the state: All motor vehicles carrying nuclear materials shipments which originate within the state shall be inspected by the Colorado State Patrol at the point-of-origin. Inspection procedures by the Colorado State Patrol shall be in accordance with the CVSA inspection procedures, decal application policies, and out-of-service criteria, found in the CVSA Operations Manual, as were in effect on April 1, 2011. Before being authorized to continue its journey after being involved in a crash, the motor vehicle and shipping container shall be inspected by a qualifie inspector in accordance with the procedures.

Motor vehicles transporting nuclear materials shall schedule trips through all Colorado municipalities of over 50,000 in population so as to avoid rush-hour traffic whenever possible. Rush hour is define as 6 to 9 am and 3 to 6 pm, Monday through Friday. As a practical matter, this applies to the cities of Fort Collins, Denver (Greater Metropolitan Area), Colorado Springs, and Pueblo. However, motor vehicles transporting nuclear materials may access the port-of-entry weigh station on Interstate 25 in Fort Collins during rush hour periods, for the purpose of being inspected as required by the provisions of §42-20-404, C.R.S.

Agencies

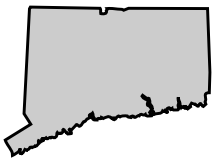
Colorado State Patrol Hazardous Section 303-273-1900

24 hour assistance Denver Regional Communications Center 303-239-4501

Colorado Public Utilities Commission
P. O. Box 2327
Englewood, Colorado 80150-2327
Telephone: (303) 894-2000 Extension 451

Reserved

Reserved



CONNECTICUT

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. This change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The Connecticut Department of Public Safety has adopted by reference the Federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Subpart B of Part 107, Parts 171-178 inclusive, and Part 180, as amended. In addition, Connecticut adopted by reference the Federal Motor Carrier Safety Regulations, Title 49, Code of Federal Regulations, Parts 388 and 390-397 inclusive, as amended.

The transportation of hazardous materials is regulated by the Connecticut Department of Public Safety and enforced by both the Connecticut Department of Public Safety and the Connecticut Department of Motor Vehicles.

The Department of Energy and Environmental Protection (DEEP) has been designated as the lead agency in developing and administering the hazardous waste management program in Connecticut.

License/Permit/Registration

A permit is required to transport radioactive materials into or through Connecticut. A permit may be obtained from the Connecticut Department of Transportation. The following requirements are to be considered a condition of the permit:

1. All routes will be determined by the Connecticut Department of Transportation.
2. All shipments are to be made during daylight hours between 9:00 A.M. and 4:00 P.M.
3. The permit is void on Saturdays, Sundays and Holidays.
4. The permit or a confirmatio of it must be in the possession of the operator of the vehicle while transporting the radioactive material over state highways.
5. The provisions of Title 49 of the Code of Federal Regulations concerning the transport of hazardous material shall be deemed as part of the conditions of this permit.
6. A fee of $25.00 shall be paid in advance for each single trip permit.

This permit shall not apply to radioactive materials shipped by or for the United States Government for military or national security purposes or which are related to national defense.

Persons transporting hazardous waste in or through Connecticut are required to obtain a permit from DEEP.

The Commissioner will assign each permitted transporter a unique identificatio number and issue a permit that is valid for a fixe term not to exceed fiv years. DEEP may issue a permit to a transporter of hazardous waste for a period less than fiv years. An application is required for each business location by March 1 of the year the permit expires.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180 and 397.

Safe Havens

None at this time.

Special Requirements

None at this time.

Agencies

Connecticut Department of Public Safety
1111 Country Club Road
Middletown, Connecticut 06457
Telephone: (860) 685-8350
Fax: (860) 685-8359

Connecticut Department of Transportation
2800 Berlin Turnpike
P.O. Box 317546
Newington, Connecticut 06131-7546
Telephone: (860) 594-2878

Connecticut Department of Motor Vehicles
60 State Street
Wethersfield Connecticut 06109
Telephone: (860) 566-3323

Department of Energy and Environmental Protection
Bureau of Materials Management and Compliance Assurance
79 Elm Street
Hartford, Connecticut 06106-5127
Telephone: (860) 424-3372
Fax: (860) 424-4059
Web: http://www.ct.gov/dep/cwp/view.asp?a=2709&q=324206&depNav_GID=1643

Reserved

DELAWARE

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a final rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specifically relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflects this state's most current adoption/incorporation.

Delaware has adopted the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 171-180 (except 171.15, 175.45 and 177.824(f)), with future amendments. The Federal Motor Carrier Safety Regulations, Parts 390-393 and 395-397 were adopted as of July 19, 1985 with future amendments. Part 387 was adopted June 28, 2006. All interstate and intrastate carriers are required to comply with these adopted regulations.

The Delaware State Emergency Response Commission has authority over the hazardous materials regulations. Enforcement of the regulations is the responsibility of the Delaware State Police.

The Department of Natural Resources and Environmental Control has been designated as the lead agency in developing and administering the hazardous waste management program in Delaware.

License/Permit/Registration

No permit is required for transportation of hazardous materials product.

The Delaware Department of Natural Resources and Environmental Control requires permits for the transportation of all RCRA hazardous wastes, used oil, non-hazardous solid wastes, and medical wastes in or through the state.

Routing

The state of Delaware requires that it receive advance notification of all high-level radioactive shipments coming through the state. Such notification shall be made with the Department of Safety and Homeland Security. All shipments of high-level radioactive materials must travel over the following designated routes within the state.

I-295 from the junction with I-95 southwest of Wilmington to the New Jersey state line.

I-495 from the junction with I-95 southwest Wilmington to the junction with I-95 northeast of Wilmington.

I-95 from the Maryland state line to the junction with I-495 southwest of Wilmington from the junction with I-495 northeast of Wilmington to the Pennsylvania state line.

If you are planning a shipment, contact the Delaware State Police for current information on the routes.

Safe Havens

None at this time.

Special Requirements

None at this time.

Agencies

State Police
Commercial Vehicle Enforcement Unit
P.O. Box 430
Dover, Delaware 19903
Telephone: (302) 378-5230
Fax: (302) 378-5231

Delaware Emergency Management Agency
165 Brick Store Landing Rd.
Smyrna, Delaware 19977
Telephone: (302) 659-3362
Fax: (302) 659-6855

Department of Natural Resources and Environmental Control
Solid and Hazardous Waste Management Branch
89 Kings Highway
Dover, Delaware 19901
Telephone: (302) 739-3689
Fax: (302) 739-5060
Web: www.dnrec.state.de.us

Department of Safety and Homeland Security
Public Safety Bldg.
303 Transportation Circle
Dover, DE 19903
Telephone: (302) 744-2680

DISTRICT OF COLUMBIA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. This change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The District of Columbia adopted Title 49, Code of Federal Regulations, Parts 171-180, the Federal Hazardous Materials Regulations, and 387, 390 to 397, the Federal Motor Carrier Safety Regulations, currently in effect. This adoption became effective August 19, 1993. These regulations are applicable to all self propelled or towed vehicles of common, contract or private carriers operating on the streets and highways of the District of Columbia, if:

(1) The gross vehicle weight rating (GVWR) or gross combination weight rating (GCWR) of the vehicle exceeds 10,000 pounds; or

(2) The vehicle is designed to transport more than fiftee passengers, including the driver; or

(3) The vehicle is used in the transportation of hazardous materials in a quantity requiring placarding.

The Metropolitan Police Department regulates the transportation of hazardous materials.

License/Permit/Registration

A permit is required to transport explosives in excess of 50 pounds. A permit may be obtained from the Metropolitan Police Department and it must be approved by the Chief of Police or a designated agent.

Transporters of hazardous waste are regulated according to the Resource Conservation and Recovery Act (RCRA) and the District of Columbia Hazardous Waste Management Act. For more information contact the District Department of the Environment, Hazardous Materials Branch.

For information about Hazardous Materials/Hazardous Waste transport requirements, please contact the US Department of Transportation (USDOT) at (202) 366-4000. The website is at http://phmsa.dot.gov/about/contact.

Routing

When the transportation of explosives requires a permit it shall be over a prearranged route prescribed by the Chief of Police.

Routes have been established for interstate transporters of hazardous materials. The following streets, roads and highways are clearly posted as hazardous cargo routes:

Interstate-295 from the District of Columbia - Maryland boundary at Oxon Run Creek, to the interchange with Interstate-695 in the vicinity of 11th and L Streets, S.E.

Interstate-695 from the interchange with Interstate-295, in the vicinity of 11th and L Streets, S.E., to the interchange with Interstate-395, in the vicinity of 2nd and E Streets, S.W.

Interstate-395 from the Virginia - District of Columbia boundary, to the interchange with Interstate-695 in the vicinity of 2nd and E Streets, S.W.

The Anacostia Freeway from the Kevin Welch Memorial Bridge, to East Capitol Street.

Kenilworth Avenue, N.E., from East Capitol Street to the District of Columbia - Maryland line.

No motor vehicle, trailer, or other cargo-carrying body which is transporting hazardous materials and is required to display markings or placards, shall enter the following tunnels or any access ramp to the tunnels:

The Interstate-395 freeway tunnel from the south portal, which is south of Independence Avenue, to the most northerly portal at K Street N.W.

The Ninth Street Expressway tunnel from the north portal at Madison Drive to the south portal, which is south of Independence Avenue.

The Twelfth Street Tunnel from Independence Avenue to Constitution Ave and the ramps from Interstate-395 to the Twelfth Street Tunnel.

Safe Havens

None at this time.

Special requirements

For information about transporting explosives call the Office of the Fire Marshal at (202) 727-1600.

Agencies

Metropolitan Police Department
Motor Carrier Safety Unit
501 New York Avenue, NW
Washington, D.C. 20001
Telephone: (202) 698-5565
Fax: (202) 727-8241

District Department of the Environment
Hazardous Materials Branch
51 N. Street, NE
Sixth Floor
Washington, D.C. 20002
Telephone: (202) 535-2600
Web: www.green.dc.gov

Reserved

FLORIDA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

Florida has adopted the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Subpart G of Part 107, Parts 171-173, 177, 178, and 180. Part 397 of the Federal Motor Carrier Safety Regulations is adopted as it existed on October 1, 2005. Sections 173.5 and 173.8 were adopted effective July 1, 1997. This adoption applies to any commercial motor vehicle transporting any hazardous material on any road, street, or highway open to the public, whether engaged in intrastate or interstate commerce. This adoption also applies to any person who offers hazardous materials for transportation.

The Florida Department of Transportation, Office of Motor Carrier Compliance exercises regulatory control over the transportation of hazardous materials in the state.

The Department of Environmental Protection is the lead agency in developing and administering the hazardous waste management program in Florida.

License/Permit/Registration

A general license will be issued to any common or contract carrier who receives, possesses, transports or stores radioactive material and who is not subject to the requirements of the U.S. Department of Transportation or U.S. Postal Service.

A radioactive waste permit is required by the Florida Department of Health and Rehabilitative Services for anyone transporting low-level radioactive waste into the state. The annual permit fee is $100.

Hazardous waste transporters and used oil handlers must have an EPA identificatio num-ber, register with the Department of Environmental Protection, and adhere to specifi rules and regulations mandated by the Federal Department of Transportation and the Department of Environmental Protection.

A used oil transporter that transports more than 500 gallons of used oil (not including oily waste) annually over public highways must become certifie pursuant to Rule 62-710.600, Florida Administrative Code (F. A. C.). This does not apply to facilities included in Rule 62-710.600 (1)(a) & (b).

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180 and 397.

Safe Havens

None at this time.

Special Requirements

None at this time.

Agencies

Florida Department of Transportation
Motor Carrier Compliance Office
325 John Knox Road
Building K
Tallahassee, Florida 32303
Telephone: (850) 245-7900
Fax: (850) 245-7901
Web: www.dot.state.fl.us/mcc

Florida Department of Environmental Protection
Hazardous Waste Management Section
2600 Blair Stone Rd.
Tallahassee, Florida 32399-2400
Telephone: (850) 488-0300
Fax: (850) 414-0414
Web: www.dep.state.fl.u

Department of Health and Rehabilitative Services
Radioactive Materials Licensing Section
1317 Winewood Blvd.
Tallahassee, Florida 32399-0700
Telephone: (850) 487-2437

GEORGIA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a final rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specifically relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflects this state's most current adoption/incorporation.

The Georgia Department of Public Safety has adopted the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 107, 130, 171-173, and 177-180, and Parts 350, 365, 376, 382, 383, 385, 386, 387, and 390-397 of the Federal Motor Carrier Safety Regulations, as amended. This adoption applies to all interstate and intrastate carriers.

The Georgia Department of Public Safety regulates the transportation of hazardous materials and hazardous waste.

License/Permit/Registration

Permits are required for certain shipments of liquefied natural gas (LNG), polychlorinated biphenyl (PCB) and radioactive materials. Permits are required for each bulk shipment of LNG and each shipment of PCB. Radioactive materials are those materials which are transported on an exclusive use vehicle, or are spent fuels, or have a Transportation Index in excess of 50, or which are "Highway Route Controlled Quantities" as defined in Title 49, Code of Federal Regulations, or more than 5,000 curies of any "Special Form" material, or are any material for which notification to a Governor or designee is required pursuant to Title 10 CFR.

A single trip permit is $25 and an annual permit is $100. Fees shall accompany the permit application, and may be made by money order, or by certified or cashier's check. No trip permit shall be issued authorizing in excess of five travel days (in Georgia) for the movement specified.

Public liability and property damage insurance shall be maintained during the existence of a permit in at least the minimum amounts required by the Federal Department of Transportation for motor carriers transporting hazardous materials. The carrier requesting a permit shall furnish along with its application a certificate of insurance showing the name of the insurance carrier, policy number, amounts of coverage, and the effective dates.

An application for a single trip permit may be made by telephone, by letter, or in person, giving the applicable information required. The permit fee shall be transmitted to the Georgia Department of Public Safety prior to the issuance of the permit.

An application for an annual permit shall be made in writing on an application form obtained from the Department. The completed application shall be signed and notarized. Any person submitting an application for a permit shall include as an attachment to the application, an emergency action plan which shall include as a minimum, the phone number and name of the person and alternate in their organization who is the primary contact for information or action with regard to any movement or emergency situation; an estimate of the number of trips, and types and quantities of hazardous materials to be transported per trip; general information as to the origins, destinations, and routes which would be preferred for travel; and a history of actual movements for the preceding three month period.

The Department no longer requires any pre-notification or call-in regarding hazardous materials movements, except for radioactive materials for which Title 10 CFR requires notification of a Governor or designee.

Routing

Atlanta Restrictions: No permit shall be valid for travel into or through the area bounded by Interstate 285 (the bypass around the city of Atlanta) unless the vehicle is making a pickup or delivery within this area. The driver in instances of this kind must be able to show proof of such pickup or delivery.

Safe havens

None at this time.

Special requirements

None at this time.

Agency

Georgia Environmental Protection
Land Protection Branch Division
Hazardous Waste Compliance Program
Telephone: (404) 657-8843

Department of Public Safety
Motor Carrier Compliance Division
P. O. Box 1456
Atlanta, GA 30371
Telephone: (404) 624-7211
Fax: (404) 624-7294
Web: www.dps.georgia.gov

Reserved

HAWAII

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The Hawaii Department of Transportation has incorporated by reference the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 107, 171-173, 177, 178 and 180 as they existed November 10, 2009; and Parts 390-399 of the Federal Motor Carrier Safety Regulations, as they existed on November 10, 2009. This adoption applies to both intrastate and interstate shipments effective November 10, 2009.

The Hawaii Department of Transportation regulated the transportation of hazardous materials.

Hazardous waste transporters are regulated by the State Department of Health at (808) 586-4226, and the U.S. Coast Guard, Marine Safety Office, at (808) 541-2068.

Hawaii Department of Health Hazardous Waste regulations may be accessed at http://hawaii.gov/health/environmental/waste/hw/index.html.

License/Permit/Registration

Used oil transporters and processors are required by the Department of Health to obtain a permit (HAR 11-279, Subchapter J). A transporter must not transport hazardous wastes without obtaining an EPA identificatio number from the Department of Health.

Routing

Unless there is no practicable alternative, a motor vehicle which contains hazardous materials must be operated over routes which do not go through or near heavily populated areas, places where crowds are assembled, tunnels, narrow streets, or alleys.

Before a motor carrier requires or permits a motor vehicle containing Class A or Class B explosives to be operated, he must prepare a written plan of a route that complies with the rules in the above sentence and must furnish a copy of the written plan to the driver. However, the driver may prepare the written plan as agent for the motor carrier when the driver begins his trip at a location other than the carrier's terminal.

Safe Havens

None at this time.

Special Requirements

None at this time.

Agencies

Hawaii Department of Transportation
Motor Vehicle Safety Office
601 Kamokila Boulevard, Suite 511
Kapolei, Hawaii 96707
Telephone: (808) 692-7661
Fax: (808) 692-7665

Hawaii Department of Transportation
Oahu District Administration
Department of Transportation/
Highways
727 Kakoi Street
Honolulu, Hawaii 96819
Telephone: (808) 831-6712

Hawaii Department of Health
Environmental Management Division
Solid and Hazardous Waste Branch
919 Ala Moana Blvd., Room 212
Honolulu, Hawaii 96814
Telephone: (808) 586-4226
Fax: (808) 586-7509

IDAHO

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

Responsibility for the hazardous materials regulations moved to the Idaho State Police on July 1, 1999. Effective July 1, 1999 the Idaho State Police adopted the Federal Motor Carrier Safety Regulations and federal Hazardous Materials Regulations as they existed on October 1, 1998.

License/Permit/Registration

Idaho law (IC – 49-2203) requires that every motor vehicle which transports hazardous materials that require a shipping paper or hazardous waste manifest must have an annual registration endorsement to operate in Idaho. The cost of the endorsement is $10.00 per vehicle. An endorsement can be obtained at any Port of Entry or at the Idaho Transportation Department Motor Carrier Services, or on the internet at trucking.idaho.gov.

Idaho Code 49-2202 requires a permit to transport hazardous waste. The permit is required for any waste shipped on an EPA Hazardous Waste Manifest or waste requiring placards or waste containing PCB's. The fee is $20 per load or $250 for an annual permit issued to the power unit.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180 and 397.

Safe Havens

None at this time.

Special Requirements

None at this time.

Agencies

Idaho State Police
Commercial Vehicle Safety
700 S. Stratford Dr.
Meridian, Idaho 83642
Telephone: (208) 884-7220 (for information about hazardous materials and hazardous waste)
Fax: (208) 884-7192
Web: www.isp.idaho.gov/

Idaho Transportation Department
Commercial Vehicle Services Motor Carrier
P.O. Box 34
Boise, ID 83731-0034
Telephone: (208) 334-8611 hazardous materials endorsements
Telephone: (208) 334-8611hazardous waste permits
Fax: (208) 334-2006
e-mail: onestop@itd.idaho.gov

ILLINOIS

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The Illinois Department of Transportation has incorporated by reference the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 107-180 and Part 397 of the Federal Motor Carrier Safety Regulations in effect on October 1, 2004. However, Sections 178.340-178.343 have been incorporated as they were on October 1, 1989. The Department has also adopted the following federal fina rules that affect Parts 107-180: HM-223 (10/30/03), HM-229 (12/3/03), HM-189U (12/31/03), HM-230 (1/26/04), HM-215E (4/19/04), HM-229 (5/26/04), HM-223 (5/28/04), HM-189X (7/13/04), HM-189W (9/7/04), HM-230 (9/13/04), HM-223 (12/8/04), HM-224E (12/15/04).

49 CFR 173.8(d)(3) was not incorporated by reference and was replaced with a limited exception for use of permanently secured non-specificatio metal tanks with a capacity of less than 450 L (119 gal) for the transportation of flammabl liquid petroleum products by intrastate motor carriers meeting certain conditions.

The Illinois Department of Transportation regulates the transportation of hazardous materials. The Illinois Environmental Protection Agency is responsible for developing and administering the hazardous waste management program in Illinois.

License/Permit/Registration

No Illinois DOT or EPA permit is required for transportation of hazardous materials in Illinois.

Illinois EPA requires a permit for transportation of hazardous waste and nonhazardous special waste. Nonhazardous special waste is define as any special waste, define in 35

Ill. Adm. Code 809, that has not been identified by characteristics or listing, as hazardous pursuant to Section 3001 of RCRA or pursuant to Board Regulations. Transporters of only nonhazardous special waste must also obtain a permit through the Illinois Environmental Protection Agency's Bureau of Land.

Transporters of hazardous waste may have previously obtained a permit through the Uniform State Hazardous Materials Registration and Permitting Program from the Illinois Environmental Protection Agency's Bureau of Land. Illinois withdrew from the Alliance effective 8/01/2011. Transporters may operate under existing Alliance permits until the next credential renewal. At renewal, and for all new permits, transporters must apply for the Special Waste Transporter Permit.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180 and 397.

Safe Havens

None at this time.

Special Requirements

Effective June 5, 2002, Failure of a respondent to pay all or a portion of a civil monetary penalty as authorized by the Illinois Hazardous Materials Transportation Regulations (IHMTR) may result in the Illinois Secretary of State suspending or revoking the registration of vehicles that are owned by the respondent or, regardless of ownership, that were the subject of violations of the IHMTR.

The following provisions were added to the Illinois Hazardous Materials Transportation Regulations in Section 171.22 and were effective 5/19/01.

(a) Subchapter C does not apply to the transportation in Illinois of an agricultural product, other than Class 2 material, by a farmer as a private intrastate carrier over local roads between field of the same farm in approved containers and in the amounts and manner specifie in 49 CFR 173.5(b)(2) and (4).

(b) Transportation of a Class 2 agricultural product by a farmer as a private intrastate carrier over local roads between field of the same farm in approved containers and in the amounts and manner specifie in 49 CFR 173.5(b)(2) and (4) are excepted from the requirements of Subparts G and H of 49 CFR 172.

(c) Transportation of an agricultural product to or from a farm, within 150 miles of the farm, in approved containers and conforming to 49 CFR 173.5(b)(1), (2) and (4) are excepted from the requirements in Subparts G and H of 49 CFR 172.

(d) See also 49 CFR 173.5(c) pertaining to specificatio packagings used for aerial application of formulated liquid agricultural products.

(e) See also 49 CFR 173.315(m) pertaining to nurse tanks of anhydrous ammonia.

(f) See also 49 CFR 173.6 pertaining to materials of trade.

NOTE: The following provisions are in the IHMTR, Section 173.3000(b)(7).

A non-specificatio metal tank having a capacity of less than 450 L (119 gal) is authorized in Illinois for the transportation of flammabl liquid petroleum products by an intrastate motor carrier subject to the following conditions:

(1) Containers must be tanks constructed of 18 gauge or heavier steel or equivalent gauge aluminum.

(2) Tanks must be securely fastened to prevent separation from the vehicle.

(3) Tanks must be electrically bonded to the frame of the vehicle.

(4) Tanks must be protected against leakage or damage in the event of a turnover.

(5) Tanks may not be drained by gravity. Top mounted pumps must be designed and labeled for use with flammabl and combustible liquids. No top mounted pump shall be higher than the highest point of the vehicle or permanently attached appurtenances (i.e. roll bars).

(6) Flammable liquid petroleum products being transported on a single vehicle may not exceed 450 L (119 gal).

(7) Flammable liquid petroleum product is offered for transportation and transported in conformance with all other applicable requirements of the Sub-chapter.

Agencies

Illinois Department of Transportation
Division of Traffic Safety
1340 N. 9th Street
P.O. Box 19212
Springfield Illinois 62794-9212
Telephone: (217) 785-1181
Fax: (217) 782-9159
Web: www.dot.il.gov

Bureau of Land
Illinois Environmental Protection Agency
1021 N. Grand Ave. East
Springfield Illinois 62702
Telephone: (217) 785-8604
Fax: (217) 782-9290
Web: www.epa.state.il.us

INDIANA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

Indiana has adopted the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Part 107 Subparts F and G, Parts 171-173, 177, 178, 180 and Part 397 of the Federal Motor Carrier Safety Regulations. Shippers and carriers engaged in interstate and intrastate commerce must comply with the regulations.

The Indiana State Police exercise regulatory control over the transportation of hazardous materials in the state.

The Indiana Department of Environmental Management has been designated as the lead agency in administering the Indiana hazardous waste management program.

License/Permit/Registration

The Indiana Department of Environmental Management (IDEM) handles hazardous waste transport issues, but the Indiana State Police Commercial Vehicle Enforcement Division administers hazardous materials transport issues. You can reach them on the web at http://www.in.gov/isp/2557.htm.

Routing

Indianapolis ordinance: The city of Indianapolis has an ordinance that requires placarded loads of hazardous materials be routed around the downtown area of the city (define as the area within the boundaries of Thirtieth Street, East Street/Central Avenue, McCarty Street,

and the White River Parkway) on Interstate 465. Transport of such loads is prohibited on Interstate-65 and Interstate-70 which lie inside Interstate-465 when there is neither a point of origin nor destination in Marion County.

The movement of placarded loads of hazardous materials in the downtown area is prohibited during the hours between 7:00 to 9:00 a.m. and 3:30 to 5:30 p.m. daily except Saturdays, Sundays and holidays. Exceptions to the above restrictions will be made only upon application to the city's Director of Transportation. An exception will be granted only when the following criteria are met:

(1) Compelling need is shown — The applicant must show that delivery or pickup of the hazardous material can be made only by entering the downtown area during the hours prohibited.

(2) Transportation of the hazardous materials is in the public interest.

Safe Havens

None at this time.

Special Requirements

Nonspecificatio bulk and nonbulk packaging, including cargo tank motor vehicles may be used only if all the following conditions exist:

- The maximum capacity of the vehicle is less 3,500 gallons.
- The shipment of goods is limited to intrastate commerce.
- The vehicle is used only for the purpose of transporting fuel oil, kerosene, diesel fuel, gasoline, gasohol, or any combination of these substances.

After June 30, 2000, the maintenance, inspection, and marking requirements of 49 CFR 173.8 and Part 180 are applicable. In accordance with federal hazardous materials regulations, new or additional nonspecificatio cargo tank motor vehicles may not be placed in service under this subsection after June 30, 1998.

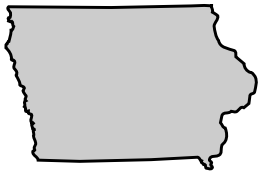
Indianapolis ordinance: When in Marion County, all vehicles transporting hazardous materials shall operate at all times with their headlights illuminated.

Agencies

Indiana State Police
Commercial Vehicle Enforcement
Division
5252 Decatur Boulevard, Ste. J
Indianapolis, Indiana 46241
Telephone: (317) 615-7373
Fax: (317) 821-2350
Web: www.state.in.us/isp/

Department of Environmental
Management
100 North Senate Avenue
Mail Code 50-01
Indianapolis, IN 46204-2251
Telephone: (317) 232-8603

Reserved



IOWA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect Iowa's most current adoption/incorporation.

The Iowa Department of Transportation has adopted the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 107, 171-173, 177, 178, 180 and the Federal Motor Carrier Safety Regulations, Parts 385, 390-399, as they were on October 1, 2009.

The Iowa Department of Transportation regulates the transportation of hazardous materials in the highway mode.

The EPA Region 7 Office in Kansas City, Kansas is the agency that administers the hazardous waste program in Iowa.

License/Permit/Registration

No permit is required for transportation of hazardous materials.

Transporters need to follow all applicable Federal Regulations in relation to transportation of hazardous waste. Call the EPA Region VII offices at (913) 551-7058 or the Iowa Department of Natural Resources for more information.

Routing

Carriers and any person operating a motor vehicle containing a package of highway route controlled quantity radioactive materials as define in Title 49, Code of Federal Regulations, Section 173.403(1) must ensure that the vehicle operates over preferred routes as described

in Title 49, Code of Federal Regulations, Section 177.825(b)(1).

Unless otherwise indicated, the preferred routes listed below may be used IN ADDITION TO all interstate highway systems (and beltways or bypasses around cities, which are required to be used). Where preferred routes have been designated IN LIEU OF an Interstate Highway System, that fact is indicated below.

Effective September 29, 1993

East/West Interstate-280/Interstate-80/Interstate-680.

Note: I-280 in lieu of I-80 in the Quad Cities area per Iowa-Illinois coordination/I-35 & 80 in lieu of I-235 in the Des Moines area per 49 CFR 397.103(b)/I-680 in lieu of I-80 in the Council Bluffs-Omaha area per Iowa-Nebraska coordination.

Central Iowa North/South Interstate-35.

Note: I-35 & 80 in lieu of I-235 in Des Moines area per 49 CFR 397.103(b).

Western Iowa North/South Interstate-29/Interstate-80 and Interstate-680/Interstate-29.

Note: I-80 and I-680 in lieu of I-29 in the Council Bluffs area per 49 CFR 397.103(b).

Safe Havens

None at this time.

Special Requirements

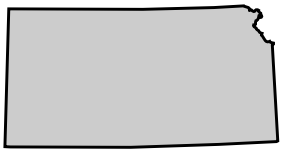
None at this time.

Agencies

Iowa Department of Transportation
Motor Vehicle Enforcement
P.O. Box 10473
Des Moines, Iowa 50306-0473
Telephone: (515) 237-3247
Fax: (515) 237-3387
Web: dot.state.ia.us/mvd/omve/hazmat.htm

EPA Region 7
Air, RCRA, and Toxics Division
901 N. 5th Street
Kansas City, KS 66101
Telephone: (913) 551-7000

Reserved



KANSAS

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect Kansas' most current adoption/incorporation.

Effective October 1, 2000, the Kansas Corporation Commission incorporated by reference the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 107.105, 107.502, 171-173, 177, 178, and 180 (except section 171.7(a)(3)) as they existed on October 1, 2007.Part 397 of the Federal Motor Carrier Safety Regulations was incorporated by reference as in effect on October 1, 2000. Whenever the incorporated Federal Regulations refer to portions of the Federal Regulations that are not included, the references shall not be applicable.

The Kansas Corporation Commission exercises regulatory control over the transportation of hazardous materials in the state.

The Department of Health and Environment has been designated as the lead agency in developing and administering the hazardous waste management program in Kansas.

License/Permit/Registration

No permit is required for transportation of hazardous materials.

Kansas requires that transporters, prior to transporting hazardous waste within Kansas, must register with the Department of Health and Environment. A person shall not transport hazardous waste within, into, out of, or through Kansas without written acknowledgement from the department that registration is complete.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180, and 397.

Safe Havens

None at this time.

Special Requirements

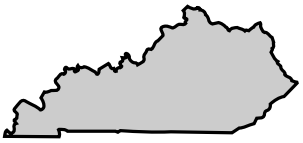
Cargo tanks in existence on July 1, 1991 and utilized by an intrastate carrier transporting petroleum crude oil, 3, UN 1267 between an oil fiel tank battery and an oil well, or during pipeline repair and replacement, clean-out procedures or emergency spill clean-up procedures are exempt from the packing requirements of 49 CFR 173.242 and 173.243.

Any cargo tank placed into service after July 1, 1991 and used for the transportation of petroleum crude oil, 3, UN 1267 shall comply with the requirements of 49 CFR 173.242 and 173.243, except that spills or clean-out procedures involving materials which cannot be accommodated by the loading and unloading outlet valve required in 49 CFR 173.242(b)(2) and 173.243(b)(2) shall be exempt from utilizing the loading and unloading outlet valve accordingly.

Agencies

Kansas Corporation Commission
1500 SW Arrowhead Road
Topeka, Kansas 66604-4027
Telephone: (785) 271-3151 or (785) 271-3333
Fax: (785) 271-3283
Web: www.kcc.state.ks.us

Waste Compliance Assistance & Enforcement
Bureau of Waste Management
Kansas Department of Health & Environment
1000 SW Jackson, Suite 320
Topeka, Kansas 66612-1366
Telephone: (785) 296-1600
Fax: (785) 296-8909
Web: www.kdheKS.gov/waste



KENTUCKY

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The Secretary of the Kentucky Transportation Cabinet has adopted by reference the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 107, 130, 171, 172, 173, 175, 177, 178, and 180. The adoption applies to the transportation of hazardous materials by air or highway.

The Kentucky Justice and Public Safety Cabinet regulates the transportation of hazardous materials.

The Energy and Environment Cabinet has been designated as the lead agency in developing and administering the hazardous waste management program in Kentucky.

License/Permit/Registration

No permit is required for transportation of hazardous materials.

Transporters are not required to have a permit to transport hazardous waste in Kentucky, but they must register with the Energy and Environment Cabinet. There is a one-time registration with no fee.

Routing

Carriers and any person operating a motor vehicle containing a package of highway route controlled quantity radioactive materials as define in Title 49, Code of Federal Regulations, Section 173.403(1) must ensure that the vehicle operates over preferred routes as described in Title 49, Code of Federal Regulations, Section 177.825(b)(1).

Unless otherwise indicated, the preferred routes listed below may be used IN ADDITION TO all interstate highway systems (and beltways or bypasses around cities, which are required to be used).

Effective November 2, 1988

Interstate-64 is the east/west route (with I-264 in the Louisville area prohibited from being used because I-65 is being designated as an alternative route).

Interstate-24 is the western Kentucky north/south route.

Interstate-65 is the central north/south route through Louisville (with I-264 in the Louisville area prohibited from being used because I-65 is being designated as an alternative route).

Interstate-71 is a north central route (with I-264 in the Louisville area prohibited from being used because I-71 is being designated as an alternative route).

Interstate-71/Interstate-75 is the central north/south route past Lexington and to and from Cincinnati except that Interstate-275 in the Covington-Newport-Cincinnati area must be used as an alternative route to Interstate-71/Interstate-75 from the junction of Interstate-71/Interstate-75 with Interstate-275 to the Ohio state line.

Interstate-471 in the Newport area cannot be used because the beltway, I-275, is required to be used instead.

Safe Havens

None at this time.

Special Requirements

In the event of an accident involving hazardous materials, the operator of the vehicle shall notify the Kentucky State Police of the accident within one hour. Hazardous waste transporters must contact the Energy and Environment Cabinet within 2 hours of the time of occurence that results in or could result in the discharge of hazardous waste. A written report of the accident/incident must be provided to the Cabinet within 10 days, if required.

Agencies

Kentucky State Police
Division of Commercial Vehicle Enforcement
919 Versailles Road
Frankfort, Kentucky 40601
Telephone: (800) 928-2402
Fax: (502) 564-5027

Energy and Environment Cabinet
Division of Waste Management
200 Fair Oaks Lane
Frankfort, Kentucky 40601
Telephone: (502) 564-6716
Fax: (502) 564-2705
Web: www.waste.ky.gov

Reserved

LOUISIANA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The Department of Public Safety and Corrections adopted the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 171-173, 177, 178, 180 and the Federal Motor Carrier Safety Regulations, Parts 383, 390-393, 395-397, revised as of December 20, 1993 and as hereafter amended. This adoption was effective January 20, 1994. These regulations shall govern all carriers, drivers, persons or vehicles to which the Federal Regulations apply, and who engage in the transportation of hazardous materials within Louisiana.

The Louisiana State Police exercise regulatory control over the transportation of hazardous materials in the state.

The Department of Environmental Quality has been designated as the lead agency in administering the hazardous waste management program in Louisiana.

License/Permit/Registration

No permit is required for the transportation of hazardous materials.

All transporters of hazardous waste are required to have a valid EPA identificatio number. The Louisiana transporter regulations apply to any person transporting hazardous waste in the state of Louisiana. Transporters of hazardous waste transporting shipments that originate in the state of Louisiana are required to notify LDEQ of their transportation activity.

Routing

The following routes are hazardous materials restricted in Louisiana. Warning signs are posted at the entrances to all restricted routes.

In Ascension Parish LA Highway 73, between Interstate 10 and LA Hwy 74 and within three hundred yards or less of any building used as a public or private elementary or secondary school except for carriers making local deliveries on this portion of LA 73. The exit ramp at LA 73 on Interstate 10 leads directly to the restricted route.

In Terrebonne Parish, all hazardous material is prohibited through the Tunnel Boulevard Tunnel in Houna.

In Jefferson Parish, all hazardous material is prohibited through the Harvey Tunnel on US 90-B.

Safe Havens

None at this time.

Special Requirements

None at this time.

Agencies

Office of State Police
Transportation and Environmental Safety Section
P.O. Box 66614
Baton Rouge, Louisiana 70896
Telephone: (225) 925-6113
Web: www.lsp.org

Department of Environmental Quality
Office of Environmental Services
P.O. Box 4303
Baton Rouge, Louisiana 70884-2178
Telephone: (225) 219-3244
Web: www.deq.louisiana.gov/portal/

MAINE

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

Effective June 21, 2003, the Maine Department of Public Safety adopted by reference the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 107, 171-174, 177-180, 387 and 397 revised as of October 1, 2011, and the Federal Motor Carrier Safety Regulations, Parts 40, 382, 387, 390-393, 395, 396, and 397 as of February 1, 2012.

The transportation of hazardous materials is regulated primarily by the Maine State Police.

The Department of Environmental Protection has been designated as the lead agency in developing and administering the hazardous waste management program in Maine.

License/Permit/Registration

Any person who transports hazardous waste in Maine in any quantity must have a transporter license. Licensing procedures are found in Chapter 853, Licensing of Transporters of Hazardous Waste.

Any person who transports or handles over 1000 gallons of waste oil per calendar month for the purpose of resale is a waste oil dealer and must obtain a waste oil transporter license. Licensing requirements are found in Chapter 860, Waste Oil Management Rules. Licensees must pay fees to the Maine Hazardous Waste Fund.

Any person who transports by rail or highway more than 25 barrels of oil (petroleum products) into Maine at any one time must register annually with the Commissioner of

Environmental Protection and pay per barrel to the department for deposit in two state oil clean up funds. The fees vary, depending on the type of product, and must be paid monthly on the basis of records certifie to the department.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180, and 397.

Safe Havens

None at this time.

Special Requirements

None at this time.

Agencies

Maine State Police
Phone: (207) 624-8939
Web: www.maine.gov/dps/msp/

Maine Bureau of Motor Vehicles
Phone: (207) 624-9000
Web: www.maine.gov/sos/bmv/

Maine Department of Environmental Protection, Bureau of Remediation and Waste Management
Phone: (207) 287-2651
Web: www.maine.gov/dep/

MARYLAND

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The Maryland Department of Transportation has adopted the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 107 and Parts 171-180, and all amendments. Any other Federal Regulations that are made applicable by specifi reference contained in the adopted parts, are also applicable.

The Hazardous Materials Compliance Section of the Maryland Department of the Environment exercises regulatory control over the transportation of hazardous materials in the state.

The Maryland Transportation Authority has adopted the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 170-180, the Federal Motor Carrier Safety Regulations, Part 397, and any revisions. The Transportation Authority has specifi tunnel, bridge and highway restrictions for hazardous material transport.

For specifi information concerning the Maryland Transportation Authority facilities, refer to the Maryland Code of Regulations (COMAR) Title II, Subtitle 07, or contact the Maryland Transportation Authority Police.

The Maryland Transportation Authority governs the transportation of hazardous materials over the following facilities and their approaches: the Baltimore Harbor Tunnel (Interstate-895); William Preston Lane, Jr. Memorial Bridge (US 50/301); Harry W. Nice Memorial Bridge (U.S. Route 301); Thomas J. Hatem Memorial Bridge (U.S. Route 40); Francis Scott Key Bridge (MD 695); John F. Kennedy Memorial Highway (Interstate-95); and the Interstate 95 Fort McHenry Tunnel.

The Department of the Environment has been designated as the lead agency in developing and administering the hazardous waste management program in Maryland.

License/Permit/Registration

The Oil Control Program of the Maryland Department of the Environment requires all companies engaged in the loading and unloading of bulk petroleum products in Maryland to have an oil operations permit with the department.

A company or individual may not transfer oil in Maryland without a license from the Maryland Department of the Environment Oil Control Program. The license is applicable only to the owner of the oil at the firs point of transfer (i.e. unloading or off loading) in the state.

A person may not transport a Controlled Hazardous Substance (hazardous waste or special medical waste) to a facility within Maryland or from a source within Maryland unless the person obtains a certificat from the Technical Services and Operations Program of the Maryland Department of the Environment.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180, and 397.

Safe Havens

None at this time.

Special Requirements

None at this time.

Agencies

Maryland Department of the Environment
Hazardous Waste Program
Hazardous Materials Compliance Section
1800 Washington Boulevard, Suite 645
Baltimore, Maryland 21230-1719
Telephone: (410) 537-3400
Fax: (410) 537-3017

Maryland Department of the Environment
Oil Control Program
Permits Section (oil operations permits)
Administrative Resources Section
1800 Washington Boulevard, Suite 620
Baltimore, Maryland 21230-1719
Telephone: (410) 537-3461
Fax: (410) 537-3092
Web: www.mde.state.md.us

Maryland Department of the Environment
Hazardous Waste Program
Certification/Manifes Section
1800 Washington Boulevard, Suite 610
Baltimore, Maryland 21230-1719
Telephone: (410) 537-3314
Fax: (410) 537-3321
Web: www.mde.state.md.us

Maryland Transportation Authority Police
Commercial Vehicle Safety Unit
15 Turnpike Drive
Perryville, Maryland 21903
Telephone: (410) 537-1126
Fax: (410) 537-1128

Maryland Transportation Authority
Police Headquarters
Patrol Bureau
4330 Broening Highway
Baltimore, Maryland 21222-2258
Telephone: (410) 537-7755
Fax: (410) 537-7700
Web: www.mdta.state.md.us

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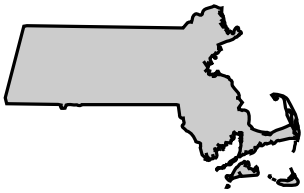


MASSACHUSETTS

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The Commonwealth of Massachusetts has adopted by reference the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 171-180, and the Federal Motor Carrier Safety Regulations, Parts 390-397. This adoption became effective on May 27, 1988 and governs both intrastate and interstate commerce on the public ways of Massachusetts. The State Fire Marshal's Office has specifi regulations governing the transportation of flammabl liquids (combustible liquids) by Massachusetts registered vehicles.

The Massachusetts State Police and the State Fire Marshal's Office exercise regulatory control over the transportation of hazardous materials in the state.

The Department of Environmental Protection has been designated as the lead agency in developing and administering the hazardous waste management program in Massachusetts.

License/Permit/Registration

No permit is required for transportation of hazardous materials.

Transporters of hazardous waste need a license, and must also have a valid U.S. EPA Identificatio number. Contact the Department of Environmental Protection for more information.

Routing

Follow routing as indicated in Title 49, Code of Federal Regulations, Parts 171-180 and 397, and subject to any local restrictions and truck exclusions. Contact the Massachusetts Turnpike Authority, (617) 248-2800, and the City of Boston, (617) 635-4680, for the most current routing restrictions in those areas.

Safe Havens

None at this time.

Special Requirements

Effective January 1, 1992, every bulk tank carrier weighing, with its load, more than twelve thousand pounds, and used to deliver gasoline or other flammabl material, shall be equipped with an audible warning system when the vehicle's transmission is in reverse.

Agencies

Massachusetts State Police
906 Elm Street
Concord, Massachusetts 01742
Telephone: (978) 369-1004
Fax: (978) 369-5353

Department of Environmental Protection
Bureau of Waste Prevention
Business Compliance Division
One Winter Street
Boston, Massachusetts 02108
Telephone: (617) 292-5500
Web: www.state.ma.us/dep/

State Fire Marshal's Office
State Rd.
Stow, Massachusetts 01775
Telephone: (978) 567-3100

MICHIGAN

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

Michigan has adopted by reference (through Michigan's Motor Carrier Safety Act, PA 181 of 1963) the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 100-180, and the Federal Motor Carrier Safety Regulations, Parts 40, 356, 365, 368, 371, 373, 375, 376, 379, 383, 385, 387, 390 through 393, 395-399, and any future changes. The adoption became effective on January 8, 1996.

The Commercial Vehicle Enforcement Division of the Department of State Police exercises regulatory control over the transportation of hazardous materials in the state.

The Department of Natural Resources and Environment administers Michigan's hazardous waste and liquid industrial waste transportation management programs.

License/Permit/Registration

A person shall not transfer or transport (interstate or intrastate) an explosive unless he has applied for, obtained and has on his person a valid explosives permit. A permit may be obtained from most sheriff or police departments.

Michigan requires a permit and registration for transportation of hazardous and liquid industrial waste, per Michigan Public Act 138, Hazardous Materials Act, of 1988. Transporters of hazardous waste are registered and permitted through the Uniform State Hazardous Materials Registration and Permitting Program. Both transporter programs are administered by the Michigan Department of Natural Resources and Environment. The MDNRE transporter

web page can be accessed by going to www.michigan.gov/dnre, clicking on ″Waste″ and selecting ″Hazardous and Liquid Waste Transporters.″

The hazardous waste transporter program is cooperatively managed by a multi-state Alliance currently comprised of Michigan, Nevada, Ohio, Oklahoma, and West Virginia.

A carrier determines its base state from among the Alliance states. If a carrier's base state is not one of the Alliance states, the carrier must register in the participating state where it records the largest percent of its total miles traveled. That state becomes the carrier's designated base state for the Uniform Program. The base state, after application and a satisfactory review, will issue an authorization called a credential honored by each Alliance state.

A copy of the issued credential must be carried in all vehicles transporting hazardous materials or waste in the states of the Uniform Program. A copy of the issued credential must be carried in all vehicles transporting non-hazardous liquid industrial waste in the state of Michigan.

Routing

M-10 (Lodge Freeway, Detroit), two locations:

(1) From 8 Mile Rd. to Wyoming Rd. (approximately 4.5 miles) and Howard St. to Woodward Ave., under Cobo Hall (approximately 1 mile).

(2) M-59, 1.1 Miles on either side of the Mound Road exit, Utica.

(3) I-696 (Detroit), from Telegraph Rd East to I-75 (approximately 10 miles).

The following bridges/tunnels have certain restrictions, as noted:

Prohibits corrosives, explosives, radioactive, and flammabl loads:

(1) Ambassador Bridge, Detroit, (313) 496-1111.

(2) Windsor Tunnel, Detroit, (313) 567-4422.

All placarded vehicles require an escort:

(1) Mackinac Bridge, Mackinac City, (906) 643-7600.

(2) International Bridge, Sault Ste. Marie, (906) 635-5255 (explosives & flammables)

Certain restrictions on explosives, radioactive, and organic peroxides:

(1) Blue Water Bridge, Port Huron, (810) 984-3131.

RESTRICTIONS on explosives, radioactive material, and organic peroxides: PROHIBITED Pyrophoric Liquids.

Specifi questions regarding routing on bridges or tunnels should be directed to the appropriate agency by calling the telephone number listed above.

Safe Havens

None at this time.

Special Requirements

A truck or truck tractor pulling a semitrailer shall not transport a flammabl liquid, in bulk, which has a flas point at or below 70 degrees Fahrenheit in this state, unless the vehicle or vehicle combination have a water capacity of less than 13,800 gallons, except for tanks registered with the Motor Carrier Division prior to October 1, 1985.

A truck or truck tractor pulling a semitrailer shall not transport a flammabl liquid, in bulk, which has a flas point at or below 70 degrees Fahrenheit in a quantity of more than 13,400 gallons.

It is illegal to transport flammabl gases or flammabl liquids in tanks with a capacity greater than 3,500 water gallons in double trailers in Michigan.

A driver must be at least 21 years old when transporting hazardous materials. There is an exception allowing farm vehicle drivers of vehicles less than 40,000 pounds Gross Vehicle Weight to be at least 18 years old (intrastate operation only).

Agencies

Michigan State Police
Commercial Vehicle Enforcement
Division
333 S Grand Ave
Lansing, MI 48909
Telephone: (517) 241-0506
Web: www..msp.state.mi.us/mcd

Department of Environmental Quality
Waste Management Division
Telephone: (517) 373-9875
www.michigan.gov/deq

Reserved

MINNESOTA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a final rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specifically relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflects this state's most current adoption/incorporation.

Minnesota Statutes Section 221.033 adopt the federal Hazardous Materials Regulations in 49 CFR Parts 171 through 199, and in United States Code sections 5101 through 5126, with limited exceptions. No person may transport or offer or accept hazardous materials for transportation within the state of Minnesota except in compliance with the provisions of the federal laws and/or regulations. The provisions apply to the transportation of hazardous materials in intrastate commerce to the same extent they apply to transportation in interstate commerce. Minnesota has also adopted the Federal Motor Carrier Safety Regulations, Parts 392 and 397, by reference, in Minnesota Statutes 221.0314.

The Minnesota Department of Transportation, Office of Freight and Commercial Vehicle Operations and the Minnesota State Patrol, Commercial Vehicle Section, regulate the shipping and transportation of hazardous materials, hazardous substances and hazardous wastes. Minnesota participates in the FMCSA Compliance Review program, and conducts hazmat Shipper Reviews, HMPIP cargo inspections, Security Reviews, Cargo Tank Facility Reviews, and commercial vehicle inspections.

License/Permit/Registration

Effective August 1, 2010, Minnesota will no longer participate in the Uniform State Hazardous Materials Registration and Permitting Program(HMP). Effective June 1, 2010, the Minnesota Department of Transportation Office of Freight and Commercial

Vehicle Operations will no longer accept new or renewal applications, or issue credentials for the HMP. Statutory authority for Minnesota to participate in the HMP was repealed by the 2010 State Legislature.

Carriers transporting hazardous materials that operate in the remaining HMP states of Nevada, Illinois, Michigan, Ohio, Oklahoma, or West Virginia, must register with the state in which they generate the greatest percent of fleet mileage as their new base state.

Routing

Vehicles required to be placarded or marked for hazardous materials are prohibited in the Lowry Hill Tunnel on I-94 near downtown Minneapolis. Posted prohibited vehicle routes are provided for I-94 and I-394 around the tunnel.

The hazardous materials routing requirements and restrictions in 49 CFR Part 397 Subparts C and D are adopted and enforced. No carrier shall permit, and no driver shall operate a vehicle required to be placarded or marked for hazardous materials over routes through or near heavily populated areas, places where crowds assemble, tunnels, and narrow streets or alleys, unless there is no practicable alternative, or to reach points of loading or unloading, or a reasonable deviation is required by emergency conditions.

Shipments of high level radioactive waste in or through Minnesota require prior notification to the Minnesota Department of Public Safety, Division of Homeland Security and Emergency Management. The notice must include the route, date, and time of the shipment, in addition to the information and requirements of 10 CFR

Sections 71.5a and 73.37(f). Routing restrictions and fees may apply in accordance with Minnesota Statutes 116C.731. Contact Kevin Leuer, Director, Preparedness Branch, Division of Homeland Security & Emergency Management, 444 Cedar Street, Suite 223, St. Paul, MN 55101-6223 or (651) 201-7406.

Safe Havens

None at this time.

Special Requirements

Farmers or their employees, transporting diesel fuel or gasoline in tank truck vehicles of less than 1,500 gallon capacity, or in other tanks mounted on motor vehicles with a gross weight of less than 10,000 pounds, or when transporting agricultural chemicals and fertilizers, for use on the transporter's farm, are not required to comply with the hazardous materials shipping paper requirements in 49 CFR 172.200 and 177.817, or the hazardous materials parking restrictions in 49 CFR 397.7(b), when operating in intrastate commerce.

Drivers of motorized petroleum tank truck vehicles having a capacity of less than 3,500 gallons, and driver employees of agricultural chemical retailers delivering agricultural chemicals directly to a farm within 50 miles of the retailer's location, and drivers of vehicles containing no hazardous materials other than materials of trade, as define and limited in 49 CFR 171.8 and 173.6, must be at least 18 years of age. The exception only applies to drivers operating in intrastate commerce.

Agency

Minnesota Department of Transportation
Office of Freight and Commercial Vehicle Operations
395 John Ireland Boulevard
Mail Stop 420
St. Paul, MN 55155-1899
Telephone: (651) 215-6330
Fax: (651)366-3718
Email: motorcarrier@dot.state.mn.us
Web: www.dot.state.mn.us/cvo

Minnesota State Patrol
Commercial Vehicle Section
1110 Centre Point Curve
Suite 410
Mendota Heights, MN 55120-4152
Telephone: (651) 405-6171
Fax: (651) 405-6199

Reserved

MISSISSIPPI

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a final rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specifically relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflects this state's most current adoption/incorporation.

The State Public Service Commission adopted the rules and regulations of the Department of Transportation relative to the transportation of hazardous materials as set forth in Title 49, Code of Federal Regulations, Parts 100-177, 178-180 and any amendments thereto. This adoption became effective on September 17, 1992.

The Motor Carrier Safety Regulations (including Part 397) of the United States Department of Transportation, as amended or to be amended in the future, have been adopted as the Safety Rules and Regulations of the State Public Service Commission.

The State Public Service Commission exercises regulatory control over the transportation of hazardous materials and hazardous waste in the state.

License/Permit/Registration

No permit is required for transportation of hazardous materials.

Haulers of hazardous waste should also contact The Mississippi Public Service Commission for information on applicable regulations. A state permit, license, or ID number specifically issued for transport of hazardous waste is not required.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180 and 397.

Safe Havens

Port of Bienville, Hancock County.

Special Requirements

None at this time.

Agency

Public Service Commission
P.O. Box 1174
Jackson, Mississippi 39215-1174
Telephone: (601) 961-5444
Fax: (601) 961-5808

Department of Environmental Quality
P.O. Box 10385
Jackson, Mississippi 39289
Telephone: (601) 961-5171

MISSOURI

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The State of Missouri has adopted the federal hazardous material regulations as follows: "It is unlawful for any person to operate any bus, truck, truck-tractor and trailer combination, or other commercial motor vehicle and trailer upon any highway of this state, whether intrastate transportation or interstate transportation, unless such transportation is conducted in accordance with the hazardous material regulations established by the United States Department of Transportation pursuant to Title 49, Code of Federal Regulations, as such regulations have been and may periodically be amended."

The Missouri State Highway Patrol, Kansas City Police Department, St. Louis Metropolitan Police Department and Missouri Department of Transportation/Motor Carrier Services enforce the hazardous materials regulations.

The Department of Natural Resources has been designated as the lead agency in developing and administering the hazardous waste management program in Missouri.

License/Permit/Registration

No permit is required for transportation of hazardous materials.

To transport hazardous waste in, out, or through Missouri, a transporter must carry a Missouri Hazardous Waste Transporter License. This license can be obtained through MODOT Motor Carrier Services.

Any shipper that ships high-level radioactive waste, transuranic radioactive waste, highway route controlled quantity shipments, spent nuclear fuel, or low-level radioactive waste

through or within the state may be subject to additional fees and oversight by the Missouri Department of Natural Resources.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180, and 397.

Safe Havens

There are three authorized safe havens in Missouri. These safe havens are authorized by local government (i.e. county sheriffs).

- B & D Truck Port (Skelly) Interstate 44 West Exit 66 Lebanon, Missouri
- Squaw Creek Truck Plaza Interstate 29 & Interstate 159 Exit 79 Holt County, Missouri
- Rockport Plaza Skelly Truck Stop
  Interstate 29 & US 136
  Rockport, Missouri

Special Requirements

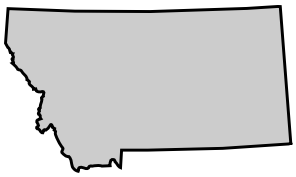
None at this time.

Agencies

Department of Transportation Motor Carrier Services
P.O. Box 1216
Jefferson City, Missouri 65102
Telephone: (573) 751-3358

Department of Natural Resources
Hazardous Waste Program
P.O. Box 176
Jefferson City, Missouri 65102
Telephone: (573) 751-3176
Fax: (573) 526-5268

State Highway Patrol
1510 East Elm, P.O. Box 568
Jefferson City, Missouri 65102
Telephone: (573) 751-3313



MONTANA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect Montana's most current adoption/incorporation.

The Montana Department of Justice has adopted as state regulations governing the transportation of hazardous materials by motor carriers or railroad, the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations Parts 107, 171-173, 177, 178, and 180, and the Federal Motor Carrier Safety Regulations,Part 382, 385, 387, 390-399, and Appendix G to Subchapter B of Chapter III, as they were on June 1, 2001 (ARM-23.5.101). The adoption was effective October 1, 2005.

The Montana Highway Patrol exercises regulatory control over hazardous materials in the state.

The Department of Environmental Quality has been designated as the lead agency in administering the hazardous waste management program in Montana.

License/Permit/Registration

No permit is required for transportation of hazardous materials.

Transporters of hazardous waste are required to register each site location of offices, terminals, depots and transfer facilities which they maintain in Montana by contacting the Department of Environmental Quality. There is no fee and this registration requirement does not apply to out-of-state transporters who only pass through or pick up or deliver hazardous wastes in Montana.

Routing

Placarded or marked loads of hazardous materials are prohibited on the portion of Highway 191 that travels through Yellowstone Park.

Safe Havens

None at this time.

Special Requirements

None at this time.

Agencies

Montana Highway Patrol
2550 Prospect Avenue
P.O. Box 201419
Helena, Montana 59620
Telephone: (406) 444-7000
Fax: (406) 444-4169
www.doj.mt.gov/enforcement/highwaypatrol/

Motor Carrier Safety Assistance Program
Phone: (406) 444-3015

Air and Waste Management Bureau
Department of Environmental Quality
1520 East Sixth Avenue
P.O. Box 200901
Helena, Montana 59620-0901
Telephone: (406) 444-3490
Fax: (406) 444-1499
http://deq.mt.gov/HazWaste/

NEBRASKA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect Nebraska's most current adoption/incorporation.

Nebraska has adopted as law Parts 107 Subparts F & G, 171-173, 177, 178, and 180 of the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, in existence as of January 1, 2012, and Part 397 of the Federal Motor Carrier Safety Regulations, in existence as of January 1, 2012. The adoption applies to all motor carriers whether engaged in interstate or intrastate commerce, drivers of such motor carriers and vehicles of such motor carriers.

The Nebraska State Patrol exercises regulatory control over hazardous materials in the state.

The Department of Environmental Quality has been designated as the lead agency in developing and administering the hazardous waste management program.

License/Permit/Registration

Overview

Any person transporting motor fuels or aircraft fuels in a transport vehicle (such as a tanker or tankwagon) into, within, or out of Nebraska must obtain a liquid fuel carrier license. A copy of the license must be carried in the transport vehicle whenever motor fuels or aircraft fuels are carried in this state. In addition, a copy of the bill of lading, manifest, bill of sale, purchase

order, sales invoice, delivery ticket, or similar documentation must be carried in the transport vehicle at all times when transporting motor fuels or aircraft fuels in Nebraska.

This documentation must include the following information:

- Date;
- Type of fuel;
- Amount of fuel;
- Where and from whom the fuel was obtained;
- Destination state or delivery location;
- Name and address of the owner of the fuel; and
- Name and address of the consignee or purchaser.

A license is not required for persons transporting motor fuels or aircraft fuels within the state for their own agricultural, quarrying, industrial or other nonhighway use; nor is it required for the transportation of leaded racing fuels, propane, or compressed natural gas, regardless of its ownership or use.

How to Obtain a License

Licenses are obtained by submitting a completed Nebraska Motor Fuels License Application, Form 20MF, to the Motor Fuels Division. The license is continuous until cancelled.

Routing

Carriers and any person operating a motor vehicle containing a package of highway route controlled quantity radioactive materials as define in Title 49, Code of Federal Regulations, Section 173.403(1) must ensure that the vehicle operates over preferred routes as described in Title 49, Code of Federal Regulations, Section 397.101.

Unless otherwise indicated, the preferred route listed below may be used IN ADDITION TO all interstate highway systems (and beltways or bypasses around cities, which are required to be used). Where preferred routes have been designated IN LIEU OF an Interstate Highway System, that fact is indicated below.

Effective August 3, 1988

East/west Interstate-80/Interstate-680
(in lieu of Interstate-80 in Omaha area).

Safe Havens

The following safe haven has been approved by local authorities.

- Tomahawk Oil Company LTD
  Interstate 80, Exit 164
  Hershey, Nebraska

Special Requirements

None at this time.

Agencies

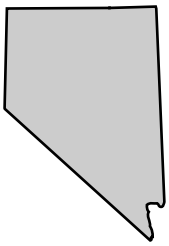
Nebraska State Patrol
3920 W. Kearney
Lincoln, Nebraska 68524
Telephone: (402) 471-0105
Fax: (402) 471-3295
Web: www.statepatrol.nebraska.gov

Nebraska State Fire Marshal Office
246 South 14th
Lincoln, Nebraska 68508
Telephone: (402) 471-2027
Web: www.sfm.ne.gov

Motor Fuels Division
Nebraska Department of Revenue
P.O. Box 98904
Lincoln, Nebraska 68509-8904
Telephone: (402) 471-5730
Web: www.revenue.ne.gov/fuels/

Nebraska Department of
Environmental Quality
Suite 400, 1200 N Street, The Atrium
P.O. Box 98922
Lincoln, Nebraska 68509-8922
Telephone: (402) 471-8308
Fax: (402) 471-2909
Web: http://deq.ne.gov/

Reserved



NEVADA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The Nevada Department of Motor Vehicles and Public Safety and the Transportation Services Authority have adopted by reference the federal Hazardous Materials Regulations, and the Federal Motor Carrier Safety Regulations, Title 49, Code of Federal Regulations, Parts 107, 171-173, 177, 178, 180 and 397 as they existed on September 1, 1996. The adopted regulations apply to all interstate and intrastate carriers.

The Nevada Highway Patrol exercises regulatory control over transportation of hazardous materials and hazardous waste in the state.

License/Permit/Registration

Nevada is one of fiv states participating in the Uniform State Hazardous Materials Registration and Permitting Program. Under this program, uniform procedures and application forms for registration and permitting of hazardous materials transportation are used by West Virginia, Ohio, Nevada, Oklahoma, and Michigan.

Carriers need to contact their base state to register and apply for the permit. After a carrier has registered, and paid its fees, the base state will issue a permit which will be honored by each state that participates in the Uniform Program. If a carrier's base state is not in the Uniform Program, the carrier must register in the participating state where it records the largest percent of its total miles traveled. That state becomes the carrier's designated base state for the Uniform Program.

Persons who transport hazardous materials that require placards; hazardous substances or marine pollutants in bulk; or hazardous wastes in Nevada must register with the Nevada Highway Patrol. The Nevada Highway Patrol will also issue a 72 hour temporary hazardous materials permit to a carrier once every 90 days. The fee is $125.000 plus COMDATA processing charges.

In Nevada, the fees for the Uniform Program credential include a general processing fee of $125.00; an apportioned power unit registration fee, determined by multiplying power unit x IRP% (or mileage percentages) x hazmat activity and rounded up to the nearest whole number and multiplied by registration fee of $125.00; and a $500.00 permit review fee. The permit review fee is paid to Base Jurisdiction during the initial Permit Review and the permit review renewal year.

For the Uniform application, go to www.hazmatalliance.org. Complete the online application, print, and send in with correct fees to base state. For more information on the Uniform Programs, contact the Department of Public Safety, Highway Patrol Division at (775) 684-4622 or fax (775) 684-4649.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180, and 397.

Safe Havens

None at this time.

Special Requirements

Any person who transports controlled quantities of radioactive material shall notify the Nevada Highway Patrol not less than four hours and not more than 48 hours before transportation begins in the state.

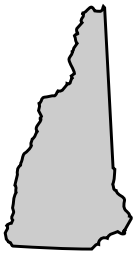
Any person who transports high-level radioactive waste shall notify the Governor of Nevada not less than four hours before transportation begins in the state.

Free and confidentia pollution prevention assistance may be obtained from the Business Environmental Program, Small Business Development Center, University of Nevada, Reno at www.unrbep.org or (800) 882-3233.

Agencies

Nevada Highway Patrol
Department of Public Safety
555 Wright Way
Carson City, Nevada 89711-0525
Telephone: (775) 684-4622
Fax: (775) 684-4649

Web: http://hazmatalliance.org
Flashing Amber Light Permit
Nevada Highway Patrol
Department of Public Safety
(775) 624-4688
https://nvamberpermit.nv.gov/permit



NEW HAMPSHIRE

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

New Hampshire has adopted by reference the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 170-189 and the Federal Motor Carrier Safety Regulations, Parts 390-397, and any amendments or additions thereto.

The New Hampshire Department of Safety exercises regulatory control over hazardous materials in the state.

The Department of Environmental Services, Division of Waste Management has been designated as the lead agency in developing and administering the hazardous waste management regulations in New Hampshire.

License/Permit/Registration

No permit is required for transportation of hazardous materials.

All persons transporting hazardous waste into or within New Hampshire must secure registrations prior to the transportation by contacting the Department of Environmental Services, Division of Waste Management.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180, and 397.

Safe Havens

None at this time.

Special Requirements

None at this time.

Agencies

New Hampshire State Police
Troop G
33 Hazen Drive
Concord, New Hampshire 03305
Telephone: (603) 271-3339
Fax: (603) 271-1760

New Hampshire Department of
Environmental Services
Waste Management Division
222 International Drive
Suite 175
Portsmouth, NH 03301
Telephone: (603) 559-1506
Fax: (603) 559-1510
Web: http://des.nh.gov/organization/divisions/waste/orcb/srcis/hwtp/index.htm

NEW JERSEY

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a final rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specifically relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflects this state's most current adoption/incorporation.

The New Jersey Department of Transportation adopted by reference the following portions of the Federal Regulations, Title 49, Code of Federal Regulations, Hazardous Materials Regulations, Parts 171, 172, 173, 174, 177, 178, 179, 180 and the Motor Carrier Safety Regulations, Parts 380 and 382, and 390-397. The adoption became effective April 22, 2005.

The New Jersey Department of Transportation exercises regulatory control over hazardous materials being transported by highway and rail modes. The New Jersey State Police enforce the hazardous materials regulations on the state roadways.

The New Jersey Turnpike Authority has jurisdiction over the transportation of hazardous materials upon the New Jersey Turnpike, and such shipments are subject to Parts 171-178 of the U.S. Department of Transportation Hazardous Materials Regulations.

The Port Authority of New York and New Jersey regulates the transportation of hazardous materials via vehicular tunnels and bridges between New York and New Jersey. The facilities to which these rules and regulations apply are the Lincoln Tunnel, the Holland Tunnel, the George Washington Bridge Upper and Lower levels, the George Washington Bridge Expressway, the Bayonne Bridge, the Goethals Bridge and the Outerbridge Crossing. The Port Authority references the regulations of the Department of Transportation which include Parts 171-178 and 397 of Title 49,

Code of Federal Regulations and amendments thereto which govern the transportation of hazardous materials by highway. The Port Authority has specific tunnel and bridge restrictions for hazardous material transport.

The Department of Environmental Protection has been designated as the lead agency in developing and administering the hazardous waste management program in New Jersey.

License/Permit/Registration

A permit is required for all tank motor vehicles transporting flammable liquids in interstate and intrastate commerce. The owner of the tank vehicle must complete a permit application certifying that the vehicle is constructed and will be operated in compliance with the regulations. A permit application can be obtained from the Federal Motor Carrier Safety Administration.

Hazardous waste haulers are required to obtain a license from Department of Environmental Protection (DEP) prior to operation. Contact the DEP for more information on additional requirements.

A permit is required for the intrastate transportation of Liquid Petroleum Gas (LPG) in motor vehicles, tank trucks, tank semitrailers or tank trailers. The owner of the vehicle must complete a permit application stating that the vehicle is constructed, equipped and will be operated in accordance with the regulations. A permit application can be obtained from the Motor Vehicle Commission through the Federal Motor Carrier Safety Administration at www.fmcsa.dot.gov. The applicant should enter forms, USDOT# and Operating Authority, Printable Forms, and MCS-150B to get the application for Combined Motor Carrier Identification Report and Hazardous Materials Permit.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180 and 397.

Safe Havens

None at this time.

Special Requirements

The New Jersey Turnpike Authority does not allow any person to transport gasoline or other flammable liquids in containers in private vehicles. Commercial vehicles carrying flammable liquids must be appropriately labeled and/or placarded as required.

The New Jersey Turnpike Authority can prohibit the entry of any carrier of any hazardous material to the turnpike, if in the Authority's opinion, the transportation or shipment will be likely to endanger life or property.

Agencies

New Jersey Department of
Transportation - Freight Services
1035 Parkway Avenue
P.O. Box N600
Trenton, New Jersey 08625
Telephone: (609) 530-8026
Fax: (609) 530-5270

New Jersey Turnpike Authority
P.O. Box 5042
Woodbridge, New Jersey 07095
Telephone: (732) 750-5300
Fax: (732) 293-1172
Web: www.state.nj.us/turnpike

The Port Authority of New York and
New Jersey
Port Authority Technical Center
241 Erie Street — Suite 221
Jersey City, New Jersey 07310-1397
Telephone: (201) 239-3780
Fax: (201) 239-3507

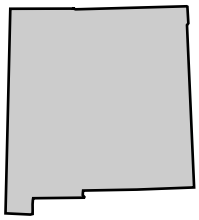
New Jersey Division of State Police
P.O. Box 7068
West Trenton, New Jersey 08625
Telephone: (609) 882-2000

New Jersey Department of
Environmental Protection
Division of Solid and Hazardous Waste
P.O. Box 414
Trenton, New Jersey 08625-0414
Telephone: (609) 984-2014
Fax: (609) 777-0769
Web: www.state.nj.us/dep/dshw

New Jersey Department of
Environmental Protection
Bureau of Radiological Health
CN 411
Trenton, New Jersey 08625
Telephone: (609) 984-5890

New Jersey Motor Vehicle Commission
Motor Carriers Services
225 E. State Street, P. O. 133
Trenton, New Jersey 08666-0133
Telephone: (609) 633-9400

Reserved



NEW MEXICO

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The Motor Transportation Division of the Department of Public Safety has adopted the October 1, 2003, federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 107, 171-173, 177, 178, and 180. The Division has also adopted the October 1, 2003, Federal Motor Carrier Safety Regulations, Part 397. These regulations are applicable to all intrastate and interstate motor carriers engaged in the transportation of hazardous materials as well as to all shippers and manufacturers.

The Public Regulation Commission has adopted Title 49, Code of Federal Regulations, federal Hazardous Materials Regulations, Parts 171-179 as they existed on November 1984 and the Federal Motor Carrier Safety Regulations, Part 397, as they existed on October 1984. This adoption went into effect on February 18, 1985. The rules apply to all intrastate common carriers and contract carriers subject to the jurisdiction of the Public Regulation Commission and all intrastate carriers of flammabl and combustible liquids subject to the jurisdiction of the State Fire Board.

The transportation of hazardous materials is regulated by the Motor Transportation Division and the Public Regulation Commission.

License/Permit/Registration

A Hazardous Materials Transportation Permit is not required.

Under the NM Solid Waste Rules (20.9.2-20.9.10 NMAC) New Mexico requires commercial haulers of solid waste and special waste [which excludes hazardous waste, unless treated

formerly characteristic hazardous waste (TFCH), which is a special waste] to be registered haulers. The Hazardous Waste Bureau ((505) 476-6000) can assist with the requirements for hauling hazardous waste.

Routing

There are no restrictions for hazardous materials in general.

New Mexico has designated the following preferred WIPP routes:

Northern Route from the Colorado - New Mexico Border

- South on I-25 to the junction of I-25 and U.S. Highway 285,
- South on U.S. Highway 285 to the junction of U.S. Highway 285 and U.S. Highway 62/180,
- East on U.S. Highway 62/180 to the WIPP north access road.

Western Route from the Arizona-New Mexico Border

- East on I-40 to the junction of I-40 and U.S. Highway 285,
- South on U.S. Highway 285 to the junction of U.S. Highway 285 and U.S. Highway 62/180,
- East on U.S. Highway 62/180 to the WIPP north access road.

Southern Route from the Texas-New Mexico Border

- North on U.S. Highway 285 to the junction of U.S. Highway 285 and U.S. Highway 62/180,
- East on U.S. Highway 62/180 to the WIPP access road.
- PLEASE NOTE: WIPP shipments have a TEMPORARY southern route. The alternate route begins at the Texas border at Route 176, approximately 2 miles east of Eunice, NM. Trucks are inspected in Eunice prior to proceeding north on State Road 18 to the southern bypass near Hobbs, NM, connecting to U.S. 62/180 west to the WIPP North Access Road.

Route from the Los Alamos National Laboratory in Los Alamos County

- East on the Los Alamos Truck Route to the junction of the Los Alamos Truck Route and State Highway 4,
- North on State Highway 4 to the junction of State Highway 4 and State Highway 502,
- East on State Highway 502 to the junction of State Highway 502 and U.S. Highway 84/285,
- South on U.S. Highway 84/285 to the junction of U.S. Highway 84/285 and I-25,
- North on I-25 to the junction of I-25 and U.S. Highway 285,
- South on U.S. Highway 285 to the junction of U.S. Highway 285 and U.S. Highway 62/180,
- East on U.S. Highway 62/180 to the WIPP north access road.

The Roswell relief route and Santa Fe Bypass will also be used.

Safe Havens

None at this time.

Special Requirements

Cargo tanks having a water capacity of 3,000 gallons or less, placed into service prior to April 1, 1995, operated by a solely intrastate motor carrier and used to transport Hazard Class 3 petroleum products do not have to meet the cargo tank specificatio requirements of 49 CFR 173.33(a)(1), 178.340, and 178.341 when operated under a valid permit issued by the Motor Transportation Division of the Department of Public Safety. This provision will expire April 1, 2005.

Agencies

Motor Transportation Division
Department of Public Safety
P.O. Box 1628
Santa Fe, New Mexico 87504-1628
Telephone: (505) 827-0321
Inspection of HRCQ shipments (505) 827-0644
Fax: (505) 827-0518
Web: www.dps.nm.org

Motor Vehicle Division
Commercial Vehicle Bureau
P.O. Box 5188
Santa Fe, New Mexico 87504-5188
Telephone: (505) 827-0392

Transportation Division
Public Regulation Commission
P.O. Drawer 1269
Santa Fe, New Mexico 87504-1269
Telephone: (505) 827-4519

Reserved

NEW YORK

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The New York State Department of Transportation has incorporated by reference the provisions of the *Code of Federal Regulations,* Title 49, Parts 100 to 185, Parts 186 to 199 and Parts 200 to 399, revised as of October 1, 2003, published by the Office of the Federal Register, National Archives and Records Administration, as a special edition of the *Federal Register.*

Specificall the Commissioner of Transportation adopts the following sections and parts of Title 49 of the *Code of Federal Regulations* with the same force and effect as though herein fully set forth at length, as the standard for classification description, packaging, marking, labeling, preparing, handling and transporting all hazardous materials, and procedures for obtaining relief from the requirements of this Part, all of the standards, requirements and procedures contained in Sections 107.101, 107.105, 107.107, 107.109, 107.111, 107.113, 107.117, 107.121, 107.123, Part 171, except for Section 171.1, Parts 172 through 199, including appendices, inclusive and Parts 390-393,396-397.

This adoption became effective December 21, 1994. Every carrier engaged in the transportation of hazardous materials within the state (intrastate and interstate) shall be subject to these rules and regulations. The Department of Transportation exercises regulatory control over hazardous materials in the state.

An exception has been authorized by an executive order to the New York Code of Rules and Regulations (NYCRR) for intrastate motor vehicles who comply with 49 Code of Federal Regulations Sections 171.8, 173.6, and 173.8.

The Port Authority of New York and New Jersey regulates the transportation of hazardous materials via vehicular tunnels and bridges between New York and New Jersey. The facilities to which these rules and regulations apply are the Lincoln Tunnel, the Holland Tunnel, the George Washington Bridge Upper and Lower levels, the George Washington Bridge Expressway, the Bayonne Bridge, the Goethals Bridge and the Outerbridge Crossing. The Port Authority references the regulations of the Department of Transportation which include Parts 171-178 and 397 of Title 49, Code of Federal Regulations and amendments thereto which govern the transportation of hazardous materials by highway. The Port Authority has specifi tunnel and bridge restrictions for hazardous material transport.

The Department of Environmental Conservation has been designated as the lead agency in developing and administering the hazardous waste management program in New York.

License/permit/registration

Transporters of hazardous waste and non-hazardous industrial/commercial waste must obtain a waste transporter permit from the Department of Environmental Conservation (DEC) and comply with additional requirements. Permit standards and requirements are provided in Title 6 of NYCRR, Part 364, Waste Transporter Permits.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180 and 397.

Safe havens

None at this time.

Special Requirements

The following special requirements shall apply to movements of overweight vehicles carrying large quantity radioactive material:

- The permittee shall comply with all applicable regulations in Title 49, Code of Federal Regulations.
- Each vehicle operating under an overweight radioactive permit shall be inspected by a New York State Police Inspector and a valid "Certificat of Inspection" shall be carried in each vehicle. At least three working days notice must be given to the permit agent for a vehicle inspection to be scheduled.
- The permittee shall notify the permit agent prior to each shipment made during the permit period.
- The permittee shall notify the permit agent immediately if an accident occurs.

Agencies

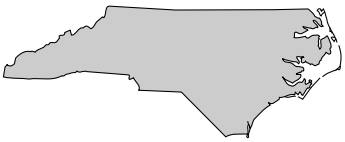
Office of Modal Safety and Security Services
New York Department of Transportation
50 Wolf Rd.
Pod 53
Albany, New York 12232-0464
Telephone: (518) 457-1016
Fax: (518) 457-2512
Web: www.nysdot.gov

The Port Authority of New York and New Jersey
Port Authority Technical Center
241 Erie Street — Suite 230
Jersey City, New Jersey 07310-1397
Telephone: (201) 216-2300

Department of Environmental Conservation,
Division of Environmental Remediation
25 Broadway
Albany, New York 12233-7250
Telephone for hazardous waste inquiries: (518) 402-9543
Telephone for hazardous waste manifesting: (518) 402-8738
Telephone for low-level radioactive waste: (518) 402-8579
Telephone for waste transporter permits: (518) 402-8707 (Division of Materials Management)
Fax: (518) 402-9024

Hauling in New York City (New York City Commission for Trade Waste): (212) 676-6200

Reserved



NORTH CAROLINA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

North Carolina has adopted the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 170-190, Part 397 of the Federal Motor Carrier Safety Regulations, and amendments thereto, effective December 1, 1983. This adoption shall apply to all motor carrier vehicles engaged in interstate and intrastate movement over the highways of North Carolina.

The North Carolina State Highway Patrol exercises regulatory control over hazardous material transportation in the state and enforces 49, Code of Federal Regulations, Parts 170-180.

The Hazardous Waste Section of the Department of Environment & Natural Resources is the agency contact regarding regulation of hazardous waste in North Carolina.

License/Permit/Registration

No permit is required for transportation of hazardous materials.

North Carolina does not currently require a permit or license, but does require an identifi cation number for hazardous waste. Contact the Department of Environment & Natural Resources for more information.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180, and 397.

Safe Havens

None at this time.

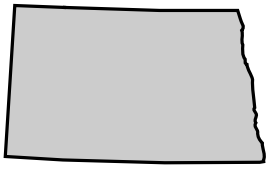
Special Requirements

No person, fir or corporation shall transport upon the highways of North Carolina any spent nuclear fuel unless such person, firm or corporation notifie the State Highway Patrol in advance of transporting the spent nuclear fuel. This requirement shall apply whether or not the fuel is for delivery in North Carolina and whether or not the shipment originated in North Carolina.

Agencies

North Carolina State Highway Patrol
Motor Carrier Enforcement Administration
512 North Salisbury Street
Raleigh, North Carolina 27604
Telephone: (919) 715-8683
Fax: (919) 715-8196
Web: http://www.nccrimecontrol.org
Click on “Contact Us” and on subject line enter “Motor Carrier Enforcement.”

Division of Waste Management
Department of Environment & Natural Resources
1646 Mail Service Center
Raleigh, North Carolina 27699-1646
Telephone: (919) 707-8400
Fax: (919) 715-3605
Web: http://portal.ncdenr.org/web/wm/hw



NORTH DAKOTA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The North Dakota Civil Code (39-21-44) states that rules governing hazardous materials transport shall duplicate or be consistent with current hazardous materials regulations of the U.S. Department of Transportation. The state has adopted by reference the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 107 (Subparts F & G only), 171-173, 177, 178, and Part 180 effective February 1, 1999. Part 397 of the Federal Motor Carrier Safety Regulations was adopted effective February 1, 1999; Part 385 Subpart E was adopted April 1, 2008.

The Fire Marshal's Office promulgates the regulations for the transportation of hazardous materials and the Highway Patrol enforces the regulations.

The North Dakota Department of Health has been designated as the lead agency in developing and administering a hazardous waste management program in the state. North Dakota's regulations are virtually identical to the Federal Regulations.

License/Permit/Registration

No permit is required for transportation of hazardous materials.

Transporters of solid and hazardous waste must obtain a waste hauler's permit from the North Dakota Department of Health.

Solid and hazardous waste permit application information may be accessed at http://www.ndhealth.gov/wm/Publications/Forms/

PermitApplicationForTransportingSolidWaste.pdf or general information at http://www.ndhealth.gov/wm/Publications/.

Routing

Ward County has special routing for transporters of hazardous materials within the city of Minot.

Safe Havens

None at this time.

Special Requirements

Anhydrous ammonia

Portable tanks, commonly referred to as nurse tanks, intended for farm fertilizer application, designed and utilized for the carriage of anhydrous ammonia, shall be exempt from the container specificatio and other Federal Regulations adopted by the state when the tank:

(1) Has a minimum design pressure of 250 pounds per square inch gauge and meets the requirements of the edition of the American Society of Mechanical Engineers code in effect at the time it was manufactured and is marked accordingly;

(2) Is equipped with safety relief valves meeting the requirements of the Compressed Gas Association, pamphlet 51.2;

(3) Is painted white or aluminum;

(4) Has the capacity of 3,000 gallons or less;

(5) Is loaded to a fillin density no greater than 56 percent;

(6) Is securely mounted on a farm wagon; and

(7) Is placarded front and rear, and on both sides with approved Department of Transportation non-flammabl gas placards; or

(8) Is identifie front and rear, and on both sides with the words “anhydrous ammonia” in letters not less than three inches high, utilizing a 1-inch brush stroke.

Portable tanks containing anhydrous ammonia must be marked with a slow moving vehicle emblem on the rear of the unit and may not be towed in excess of 25 miles per hour on any road or highway. Shipping papers shall not be required to accompany the movement of portable tanks containing anhydrous ammonia when transported under these provisions. No material other than anhydrous ammonia shall be carried in any portable container identifie above and exempted as such from the regulations.

Intrastate farm operations

Review 49 CFR 173.5 Agricultural operations.

The transportation of an agricultural product other than a Class 2 material, over local roads between field of the same farm, is exempted from the hazardous materials requirements when:

(a) It is transported by a farmer who is an intrastate private motor carrier, and

(b) The movement of the agricultural product conforms to all other state statutes or rules in effect before October 1, 1998.

The transportation of an agricultural product to or from a farm, within one hundred fift miles (241.40 kilometers) of the farm, is exempted from the requirements in Subparts G (Emergency Response Information) and H (Training) of 49 CFR Part 172 when:

(a) It is transported by a farmer who is an intrastate private motor carrier,

(b) The total amount of agricultural product being transported on a single vehicle does not exceed:

(1) Sixteen thousand ninety-four pounds (7300 kilograms) of ammonium nitrate fertilizer properly classed as Division 5.1, PG III, in a bulk packaging; or

(2) Five hundred two gallons (1900 liters) for liquids or gases, or fiv thousand seventy pounds (2,300 kilograms) for solids, of any other agricultural product.

(c) The packaging conforms to the general packaging requirements of 49 CFR Parts 173.24, 173.24a and 173.24b.

(d) Each person having any responsibility for transporting the agricultural product or preparing the agricultural product for shipment has been instructed in the applicable requirements of this chapter.

(e) Formulated liquid agricultural products in specificatio packagings of fifty-eigh gallons (220 liters) capacity, or less, with closures manifolded to a closed mixing system and equipped with positive dry disconnect devices may be transported by a private motor carrier between a fina distribution point and an ultimate point of application or for loading aboard an airplane for aerial application.

(f) See 49 CFR Part 173.315(m) and North Dakota Administrative Code Section 38-03-02-01 pertaining to nurse tanks of anhydrous ammonia.

(g) See 49 CFR Part 173.6 pertaining to materials of trade.

Petroleum products

Notwithstanding requirements for specificatio packagings in 49 CFR Subpart F of Part 173 and Parts 178 and 180, a nonspecificatio cargo tank motor vehicle having a capacity of less than three thousand fiv hundred gallons (13250 liters) may be used by an intrastate motor carrier for transportation of a flammabl liquid petroleum product in accordance with the additional requirements below.

Notwithstanding requirements for specificatio packagings in 49 CFR Subpart F of Part 173 and Parts 178 and 180, a nonspecificatio metal tank permanently secured to a transport vehicle and protected against leakage or damage in the event of a turnover, having a capacity of less than one hundred nineteen gallons (450 liters), may be used by an intrastate motor carrier for transportation of a flammabl liquid petroleum product in accordance with the additional requirements below.

Additional requirements. A packaging used under the above paragraphs must:

(a) Be operated by an intrastate motor carrier and in use as a packaging for hazardous material before October 1, 1998;

(b) Be operated in conformance with all other requirements of this state;

(c) Be offered for transportation and transported in conformance with all other applicable requirements of subchapter a of 49 CFR;

(d) Not be used to transport a flammabl cryogenic liquid, hazardous substance, hazardous waste, or marine pollutant; and

(e) On and after July 1, 2000, a tank authorized under Subsection 1 or 2 must conform to all requirements in Part 180 (except for 180.405(g)) of 49 CFR in the same manner as required for a DOT specificatio MC 306 cargo tank motor vehicle.

Agencies

North Dakota Highway Patrol
600 East Boulevard Avenue
Capitol Building, Judicial Wing
Bismarck, North Dakota 58505-0241
Telephone: (701) 328-2455
Fax: (701) 328-1717
Web: www.state.nd.us/ndhp

Division of Waste Management
North Dakota Department of Health
918 East Divide Avenue, Third Floor
Bismarck, North Dakota 58501-1947
Telephone: (701) 328-5166
Fax: (701) 328-5200
Web: www.health.state.nd.us/ndhd/environ/wm

Fire Marshal's Office
4205 State Street
Bismarck, North Dakota 58501
Telephone: (701) 328-5555

OHIO

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. This change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The Public Utilities Commission of Ohio has adopted the Federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 107, Subpart F & G,Parts 171-180 and Parts 40, 367, 380, 382, 383, 385, 386, 387, and 390-397 of the Federal Motor Carrier Safety Regulations, as effective on March 16, 2011.

All carriers operating in interstate commerce are subject to the regulations. All intrastate carriers are subject to the regulations except for:

(1) Governmental or quasi-governmental entities, such as cities or regional transit authorities.

(2) Carriers who operate exclusively within the limits of one municipal corporation or exclusively within the limits of several municipal corporations, all of which touch a single municipal corporation.

(3) Persons transporting farm supplies to a farm or farm products from a farm to markets or food fabricating plants.

(4) Persons transporting crude petroleum from well to pipeline terminal.

(5) Contract or private carriers operating motor vehicles for contractors on public road work.

The Public Utilities Commission of Ohio exercises regulatory control over the transportation of hazardous materials and hazardous waste in the state.

License/Permit/Registration

Ohio is one of fiv states participating in the Uniform State Hazardous Materials Registration and Permitting Program. Under this program, uniform procedures and application forms for registration and permitting of hazardous materials transportation are used by West Virginia, Ohio, Oklahoma, Michigan, and Nevada.

Carriers need to contact their base state to register and apply for the permit. After a carrier has registered, and paid its fees, the base state will issue a permit which will be honored by each state that participates in the Uniform Program. If a carrier's base state is not participating in the Uniform Program, the carrier must register in the state where it records the largest percent of its total miles traveled.

Persons who transport hazardous materials that require placards; hazardous substances or marine pollutants in bulk; or hazardous wastes in Ohio must register with the Public Utilities Commission of Ohio. A carrier who designated another participating state as its base state shall register and obtain a permit from that state before transporting the hazardous material or wastes in Ohio.

Routing

Northeast Ohio

The Ohio Public Utilities Commission has established routing designations for the highway transportation of non-radioactive hazardous materials in quantities requiring placards. The following routes are designated routes for the through transportation (has neither a place of origin nor a destination) of hazardous materials in northeast Ohio:

City of Columbus

The city has established routing for placarded loads of hazardous materials. Through shipments of hazardous materials must use Interstate 270 (the Outerbelt) around the city. Shipments that do have a destination within the city must use a "major thoroughfare" to a point as close as possible to the destination. The major thoroughfares are: Interstate 70, Interstate 71, Interstate 670, State Route 33, State Route 161, State Route 315, Broad Street, and High Street. The transportation of hazardous materials within the downtown area is prohibited between 6:00 a.m. and 8:00 p.m. daily, except Saturdays, Sundays and holidays.

City of Lorain

The city has established routing for all hazardous materials regulated by 49 CFR Parts 171-173, 177, and 397. Through shipments of hazardous materials (no point of origin or destination within the city) are prohibited on: State Route 57, State Route 611, State Route 58, U.S. Route 6, and city streets. Through shipments of hazardous materials are authorized on: Interstate 90 and State Route 2.

Shipments that do have a destination within the city must use a "major thoroughfare" to a point as close as possible to the destination. The major thoroughfares are: State Route 57, State Route 58, State Route 611, U.S. Route 6, Cooper Foster Park Road, and Middle Ridge Road.

City of Painesville

The city has established routing for medical waste transported in and through the city. Medical waste that does not originate within the city must be transported on Route 44 and State Route 2. Medical waste that originates within the city must be transported on the following routes: State Route 44, State Route 2, Richmond Street, Liberty Street, or any other street approved through a permit obtained from the city.

City of Westlake

The city has established routing for explosives, blasting agents, hazardous chemicals, and other dangerous articles. The transportation of these materials is limited to the following routes: U.S. Route 20 (Center Ridge Road), State Route 252 (Columbia Road), State Route 254 (Detroit Road), and Interstate 90.

Safe Havens

None at this time.

Special Requirements

Prior to transporting any [large] high-level radioactive waste, spent nuclear fuel, transuranic waste, or any quantity of special nuclear material or by-product material that meets or exceeds the highway route controlled quantity, within, into, or through the state, the carrier or shipper of the material shall notify the executive director of the emergency management agency. Contact the PUC for more information.

Agency

Transportation Department
Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43266-0573
Telephone: (614) 466-3392
Fax: (614) 728-9292
Web: www.puc.state.oh.us

Reserved

OKLAHOMA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The Oklahoma Department of Public Safety has adopted by reference the federal Hazardous Materials Regulations and the Federal Motor Carrier Safety Regulations, Title 49, Code of Federal Regulations, Parts 40, 107, 171-173, 177, 178, 180, 382, 385 (385.1-385.8), 390-393, and 395-397 as amended and revised through January 1, 1998. This adoption became effective in 2002, and it applies to all interstate and intrastate motor carriers.

Permission to drive a transport vehicle that contains a hazardous material, in intrastate commerce, in an emergency without the proper markings or placards, as provided in Title 49, Code of Federal Regulations, Section 177.823(a)(2), shall be obtained from the Commercial Vehicle Enforcement Division at the Oklahoma Department of Public Safety.

The Oklahoma Department of Public Safety exercises enforcement over the transportation of hazardous materials in the state.

The Oklahoma Corporation Commission has been designated as the lead agency in developing and administering the Oklahoma hazardous waste registration and permitting of motor carriers and enforcement thereof.

The Department of Environmental Quality is the EPA-authorized agency for the administration and enforcement of the standards applicable to hazardous waste transporters as identifie in Oklahoma Administrative Code 252: 205-3-2 incorporating 40 CFR 263-Standards Applicable to Transporters of Hazardous Waste.

License/Permit/Registration

Oklahoma is one of fiv states participating in the Uniform State Hazardous Materials Registration and Permitting Program. Under this program, uniform procedures and application forms for registration and permitting of hazardous materials transportation are used by West Virginia, Ohio, Michigan, Nevada, and Oklahoma.

Carriers need to contact their base state to register and apply for the permit. After a carrier has registered, and paid its fees, the base state will issue a permit which will be honored by each state that participates in the Uniform Program. If a carrier's base state is not participating in the Uniform Program, the carrier must register in the state where it records the largest percent of its total miles traveled.

Persons who transport hazardous wastes requiring a manifest in Oklahoma must register with the Oklahoma Corporation Commission and must have an EPA hazardous waste ID number obtained from the Oklahoma Department of Environmental Quality or other state or Federal entity authorized to issue an ID number. A carrier who designated another participating state as its base state shall register and obtain a permit from that state before transporting the hazardous wastes in Oklahoma, and have an EPA hazardous waste ID number from its base state.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180, and 397.

Safe Havens

None at this time.

Special Requirements

The cargo tank specification found in Title 49, Code of Federal Regulations, Section 173.33(a), concerning the qualification and maintenance of cargo tanks used to transport hazardous materials, shall include the following exemption: Intrastate movements of petroleum products in nonspecificatio cargo tanks of 3500 gallons or less by carriers transporting petroleum products solely in intrastate commerce may continue, provided the cargo tanks meet the general packaging requirements of Title 49, Code of Federal Regulations, Section 173.24 except specificatio packages as stated in paragraph (c) and have been in actual operation transporting similar materials prior to October 1, 1987. This provision will expire on January 1, 1999. Any retrofittin of cargo tanks after October 1, 1987 shall be made to meet specificatio requirements for the type of hazardous material transported therein.

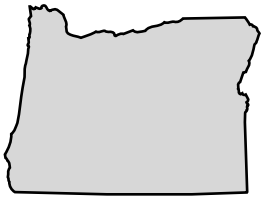
This exemption does not apply if at any time after October 1, 1987, the cargo tank is sold or ownership of the cargo tank is otherwise transferred. After the expiration date, this type of cargo tank hauling petroleum products is authorized under 49 CFR Part 173.8(b).

Agencies

Oklahoma Department of Public Safety
220 NE 38th Terrace
Oklahoma City, Oklahoma 73105
Telephone: (405) 702-0813
Fax: (405) 702-0819

Oklahoma Corporation Commission
2101 N. Lincoln Blvd.
P.O. Box 52000
Oklahoma City, Oklahoma 73152-2000
Telephone: (405) 521-2915

Reserved



OREGON

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a final rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specifically relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflects Oregon's most current adoption/incorporation.

The Oregon Department of Transportation has adopted the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, such portions of Parts 107-178 and 180 as are applicable to motor carriers, Part 397 of the Federal Motor Carrier Safety Regulations, and amendments thereto in effect on April 1, 2002.

The Oregon Department of Transportation exercises regulatory control over the transportation of hazardous materials and hazardous waste in the state.

License/Permit/Registration

A fee is charged and a permit is required to transport radioactive material that requires a placard, according to 49 CFR Part 172 Subpart F, prior to transportation in the state of Oregon. A fee is subsequently charged for each shipment. All spent fuel and Highway Route Controlled Quantity Shipments must be inspected. Previous CVSA Level VI inspections may satisfy the requirement. Contact the Oregon Department of Transportation, Motor Carrier Transportation Branch for more information.

Routing

None at this time.

Safe Havens

None at this time.

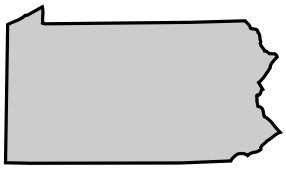
Special Requirements

None at this time.

Agencies

Oregon Department of Transportation
Motor Carrier Transportation Branch
550 Capitol Street, NE
Salem, Oregon 97301-2530
Telephone: (503) 378-3667
(Hazardous material)
Web: www.oregon.gov/ODOT/index.shtml

Oregon Department of Energy
Nuclear Safety Division
625 Marion Street, NE
Salem, Oregon 97301-3737
Telephone: (503) 378-4040
(Radioactive material)
Fax: (503) 378-6457
Web: www.oregon.gov/ENERGY/



PENNSYLVANIA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect Pennsylvania's most current adoption/incorporation.

The Pennsylvania Department of Transportation adopted by reference the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 171, 172, 173, 177, 178, 180, and the Federal Motor Carrier Safety Regulations, Parts 388 and 397. This adoption was effective March 19, 1994. These regulations shall apply to every shipper and motor carrier and its officers, drivers, agents, employees, and representatives involved or related to the transportation of interstate or intrastate commerce, or both.

The Pennsylvania State Police is the lead agency of enforcement of the regulations concerning the transportation of hazardous materials in the state.

The Pennsylvania Turnpike Commission requires that hazardous materials transported on the turnpike system shall be in full compliance with the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 170-179, Part 397 of the Federal Motor Carrier Safety Regulations and any other federal law or regulation relating to the transportation of hazardous materials. The Pennsylvania Turnpike Commission exercises regulatory control over the transportation of hazardous materials on the Pennsylvania Turnpike.

The Department of Environmental Protection has been designated as the lead agency in developing and administering the hazardous waste management program in Pennsylvania.

The Pennsylvania Emergency Management Agency has been designated as the lead agency in the hazardous materials emergency preparedness and response programs and coordinates state-wide hazardous materials incident response.

License/Permit/Registration

All cargo tanks used in the transportation of hazardous materials in intrastate commerce, shall conform to the specification in Title 49, Code of Federal Regulations, Parts 173, 177, 178, and 180 as applicable.

Transporters of hazardous waste must be licensed with the Department of Environmental Protection (DEP) and meet certain additional requirements. Contact the DEP for further information.

Radioactive material may not be transported or delivered to a carrier to be transported unless authorized in a general or specifi license issued by the Department of Environmental Protection.

The Pennsylvania Emergency Management Agency (PEMA) requires a fee of $1,000 for each shipment of spent nuclear reactor fuel payable prior to the proposed date of shipment. Escort service by the Pennsylvania State Police is required. The 24-hour answering point for shipments of spent nuclear reactor fuel is through the Pennsylvania Emergency Operations Center at PEMA.

Routing

The Department of Transportation prohibits the operation of vehicles transporting hazardous materials in a quantity requiring placarding on the following routes:

- US 30, westbound, between segment 0010, offset 0282, Somerset County (282 feet east of the Westmoreland/Somerset County line) to segment 0750, offset 1088, Westmoreland County (eastern boundary of village of Laughlintown). This prohibition is in effect for the westbound direction only.
- Dauphin County, Middle Paxton Township, S.R. 3009, both directions, from Segment 0210/0720 (Intersection of S.R. 3009 and PA 443) to Segment 0221/1382 (Junction of S.R. 3009 with U.S. 22/322).

- Dauphin County, U.S. 22 eastbound from Segment 0420, Offset 0000 (U.S. 22/I-83 interchange) to Segment 0570, Offset 0000 (U.S. 22/PA 39 intersection) and U.S. 22 westbound from Segment 0421, Offset 0000 (U.S. 22/I-83 interchange) to Segment 0571, Offset 0000 (U.S. 22/PA 39 intersection).
- Dauphin County, PA 39 eastbound and westbound from Segment 0030, Offset 0000 (U.S. 22/322/PA 39 interchange) to Segment 0210, Offset 0000 (PA 39/I-81 interchange).
- Cumberland County, U.S. 11 northbound and southbound from Segment 0360, Offset 2119 (Intersection of PA 465 and US 11) to Segment 0510, Offset 0000 (Junction of US 11 and Pennsylvania Turnpike).
- Cumberland County, PA 641 eastbound and westbound from Segment 0440, Offset 3196 (Intersection of US 11 and PA 641) to Segment 0470, Offset 0000 (Interchange of PA 641 and I-81).
- Cumberland County, PA 74 northbound and southbound from Segment 0170, Offset 0000 (Interchange of PA 74 and I-81) to Segment 0210, Offset 0000 (Intersection of PA 74 and US 11).
- Cumberland County, PA 34 northbound and southbound from Segment 0270, Offset 0000 (Interchange of PA 34 and I-81) to Segment 0300. Offset 0000 (Intersection of PA 34 and US 11).
- Cumberland County, SR 2035, Bridge Street, northbound and southbound, from Segment 0010 Offset 0000 (York County line) to Segment 0040 Offset 2688 (Intersection of SR 2035 with SR 2028, Lowther Street).
- York County, SR 1003, Bridge Street, northbound and southbound, from Segment 0100 Offset 000 (Intersection of SR 1003 with PA 114, Lewisberry Road) to Segment 0100 Offset 2952 (Cumberland County line).

Placarded vehicles making local deliveries to locations adjacent to the prohibited routes are exempt from the above listed prohibitions.

The Pennsylvania Turnpike Commission has implemented revised guidelines on transporting hazardous materials through its fiv tunnels. The regulations permit the transportation of Table 2 materials in restricted non-bulk packages. Placards previously permitted shall remain unrestricted. All Table 1 materials and all explosives remain prohibited.

Safe Havens

The following safe havens have been approved by local governments.

- Pocono Auto and Truck Plaza
  Interstate 80 and U.S. 611, Exit 46 North
  Bartonsville, Pennsylvania
- Clearfiel Truckstop
  Interstate 80, Exit 19
  Clearfield Pennsylvania

Special Requirements

Radioactive materials and Class 1.1-1.4 explosives as define in the Code of Federal RegulationsSections 173.53 and 173.403 are prohibited in tandem trailer combinations.

Agencies

Pennsylvania State Police Bureau of Patrol
1850 Arsenal Blvd
Harrisburg, Pennsylvania 17103
Telephone: (717) 346-7347
Fax: (717) 346-7338
Web: www.dot.pa.gov

Pennsylvania Emergency Management Agency
P.O. Box 3321
Harrisburg, Pennsylvania 17105-3321
Telephone: (717) 651-2001

Pennsylvania Department of Environmental Protection
Bureau of Radiation Protection
Rachel Carson State Office Building
P.O. Box 8469
Harrisburg, Pennsylvania 17105-8469
Telephone: (717) 787-2480

Department of Environmental Protection
Bureau of Waste Management
P.O. Box 8471
Harrisburg, Pennsylvania 17105-8471
Telephone: (717) 787-6239
Fax: (717) 787-0884
Web: www.dep.pa.gov

Pennsylvania Turnpike Commission
P.O. Box 67676
Harrisburg, Pennsylvania 17106-7676
Telephone: (717) 939-9551 ext.2980
Fax: (717) 986-8733
Web: www.paturnpike.com

Pennsylvania Department of Transportation
P.O. Box 68272
Harrisburg, Pennsylvania 17106-8272
Telephone: (717) 787-7445

RHODE ISLAND

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The State of Rhode Island requires compliance in all respects with the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 100-180 and Part 397 of the Federal Motor Carrier Safety Regulations, as amended, for all interstate and intrastate shipments.

The transportation of hazardous materials is regulated primarily by the Rhode Island State Police.

The Rhode Island Public Utilities Commission has also adopted the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 170-190 and Part 397 of the Federal Motor Carrier Safety Regulations, as may be amended. The Public Utilities Commission has specifi requirements for the transportation of high level radioactive materials.

The Department of Environmental Management has been designated as the lead agency in developing and administering the hazardous waste management program in Rhode Island. A hazardous waste transporter permit is required to transport hazardous waste or waste oil.

License/Permit/Registration

The following shipments of radioactive materials require a Rhode Island Radioactive Material Permit. However, this shall not apply to radioactive materials shipped by or for the United States Government for military or national security purposes or which are related to national defense.

- Any quantity of radioactive materials specifie as a “large quantity” by the Nuclear Regulatory Commission in 10 CFR, Part 71, entitled “Packaging or Radioactive Materials for Transport.”
- Any quantity of radioactive waste which has been produced as part of the nuclear fuel cycle and which is being shipped from or through the state to a waste disposal site or facility.
- Any shipment of radioactive materials or waste which is carried by commercial carrier and which is required in 10 CFR or 49 CFR to have a placard.

To obtain a permit you must fil an application with the Public Utilities Commission at least four hours (Saturday, Sunday and Holidays excluded) prior to the commencement of the transportation over Rhode Island highways. The application for a permit may be submitted for a period of up to two weeks prior to the proposed transportation. The application for a permit shall include the following information:

- Name and address of the carrier;
- A detailed description of the route(s) to be followed by the carrier;
- Description of the commodity to be transported, type of label required and quantity;
- Date and time the transportation service will be provided;
- Origin and destination of shipment;
- Vehicle identificatio number;
- Vehicle registration;
- Proof of vehicle inspection;
- Proof of proper insurance coverage;
- A certificatio from the shipper that the articles described in the shipping papers are properly classified described, packaged, marked and labeled and that the articles are in proper condition for transportation, according to the regulations of the Nuclear Regulatory Commission and the federal Department of Transportation; and
- A certificatio from the carrier that the packaged radioactive material has been loaded, blocked and properly secured on to the transport vehicle and that the vehicle and the load are in compliance with the applicable Motor Carrier Safety Regulations of the federal Department of Transportation.

The permit, a confirmatio of such permit, or a copy of the permit shall be retained in the possession of the operator of the vehicle while transporting the radioactive materials over Rhode Island highways.

Hazardous waste (including waste oil) and regulated medical waste may not be transported in or on the land or waters of Rhode Island without firs obtaining a Hazardous Waste

Transporter Permit from the Department of Environmental Management. Information and permit applications are also available at the Department's website.

Routing

A list of prohibited roads for certain hazardous materials is available from the Department of Environmental Management. It may be accessed at www.dem.ri.gov/pubs/regs/index.htm#WM. The site also contains rules and regulations regarding hazardous waste and HW management.

Safe Havens

None at this time.

Special Requirements

Any motor carrier transporting materials that require a radioactive permit shall be equipped with a two-way radio within easy reach of the driver. This radio shall be used to alert the appropriate federal, state or municipal agencies of any accident or mishap occurring within Rhode Island.

The transportation of radioactive materials that require a permit is not allowed during the hours of 7-9 A.M. and 4-6 P.M., Monday through Friday.

Agencies

Rhode Island State Police
311 Danielson Pike
North Scituate, Rhode Island 02857
Telephone: (401) 444-1140
Fax: (401) 444-1141
e-mail: www.risp.state.ri.us

Department of Environmental Management
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 222-2797
Web: www.dem.ri.gov

Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, Rhode Island 02888
Telephone: (401) 941-4500
Fax: (401) 941-9248

Reserved

SOUTH CAROLINA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect South Carolina's most current adoption/incorporation.

The Department of Public Safety has adopted the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 171-180, and Parts 382, 383, 385, 387, and 390-399 of the Federal Motor Carrier Safety Regulations and amendments thereto. The adoption applies to all motor carrier vehicles engaged in interstate and intrastate commerce.

The South Carolina State Transport Police (a division of the Department of Public Safety) exercises regulatory control over the transportation of hazardous materials and hazardous waste in the state.

The SC Office of Regulatory Staff (ORS) has been designated as the lead agency in developing and administering the hazardous waste management program in South Carolina.

License/Permit/Registration

No permit is required from the Department of Health and Environmental Control for transportation of hazardous materials. Follow DOT regulations.

Every person transporting a hazardous waste within South Carolina must have a valid transporter permit from the Department of Health and Environmental Control and meet additional requirements.

Hazardous waste transporters must also register with the Office of Regulatory Staff.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180, and 397.

Safe Havens

None at this time.

Special Requirements

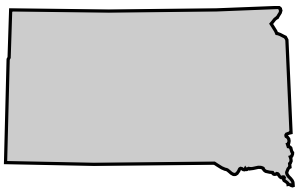
None at this time.

Agencies

South Carolina State Transport Police
10311 Wilson Boulevard
Building D2-309
P.O. Box 1993
Blythewood, SC 29016
Telephone: (803) 896-5500
Fax: (803) 896-5526
Web: www.scdps.org/stp

State of South Carolina
Office of Regulatory Staff
1401 Main Street, Suite 900
Columbia, SC 29201
Telephone: (803) 737-0800

Department of Health and Environmental Control
Bureau of Land and Waste Management
2600 Bull Street
Columbia, South Carolina 29201
Telephone: (803) 896-4000
Fax: (803) 896-4002
Web: www.scdhec.gov



SOUTH DAKOTA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect South Dakota's most current adoption/incorporation.

South Dakota has adopted the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Subtitle B, Chapter I, Subchapter A, Part 107(Subparts F & G only) and Subchapter C, Parts 171-180, Subtitle B, Chapter III, Subchapter B, Part 387, and Parts 390-397 of the Federal Motor Carrier Safety Regulations, as amended through January 1, 2010. The effective date of adoption is July 1, 2010.

The South Dakota Highway Patrol exercises regulatory control over the transportation of hazardous materials in the state.

The Department of Environment and Natural Resources has been designated as the lead agency in administering the hazardous waste management program in South Dakota. The program website may be accessed at http://denr.sd.gov/des/wm/hw/hwmainpage.aspx.

License/Permit/Registration

None at this time.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180, and 397.

Safe Havens

None at this time.

Special Requirements

Any person under the age of twenty-one but over the age of eighteen may become an intrastate qualifie driver if the person is certifie as a private applicator (for restricted-use pesticides). The requirements for this certificatio are determined by the Secretary of Agriculture.

Agencies

Division of Highway Patrol
State Capitol Building
118 W. Capitol Avenue
Pierre, South Dakota 57501-5070
Telephone: (605) 773-4578
Fax: (605) 773-7144

Department of Environment and
Natural Resources
Waste Management Program
Division of Environmental Services
523 East Capitol Avenue
Pierre, South Dakota 57501-3181
Telephone: (605) 773-3153

TENNESSEE

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The Tennessee Department of Safety has adopted the rules, regulations and any amendments, supplements or revisions thereto contained in the federal Hazardous Materials Regulations, Title 49, Code of federal Regulations, Parts 100-180 adopted in May 1974. The Department of Safety has also adopted Part 397 of the Federal Motor Carrier Safety Regulations and all subsequent amendments thereto, effective September 13, 1986.

The Tennessee Department of Safety exercises regulatory control over the transportation of hazardous materials in the state.

The Department of Environment and Conservation, Division of Solid Waste Management, has been designated as the lead agency in developing and administering the hazardous waste management program and Used Oil program in Tennessee. In general, Tennessee's hazardous waste transporter and used oil transporter requirements are modeled after federal regulations. Tennessee's requirements for hazardous waste transfer facilities are more stringent than the federal requirements. Tennessee's used oil transporter and registration requirements are also more stringent and lengthier than the federeal requirements. Both types of transporters are also subject to annual state fees. Fees are also assessed on hazardous waste transfer facilities and used oil transfer facilities.

License/Permit/Registration

No permit is required for transportation of hazardous materials.

In general, per Tennessee Rule Chapter 0400-12-01, any person who transports a hazardous waste or used oil that originates or terminates in Tennessee must obtain an installation identificatio number and a Hazardous Waste transporter permit for transporting hazardous waste. Used Oil transporters must obtain a used oil number from the Division of Solid Waste Management, Department of Environment and Conservation, and meet the state certificatio in regard to compliance with U.S. DOT standards, insurance, etc. and be registered with the state. The hazardous waste transporter permits and the used oil registration must be renewed annually. Out-of-state transporters must obtain their installation numbers from their respective state agency or the EPA, as appropriate. Used oil transporters must also send in annual reports and supplemental information. Both types of transporters are subject to annual fees for hazardous waste transporters and used oil transporters.

Routing

No person shall drive or cause to be driven a motor vehicle carrying a placardable quantity of hazardous material (as specifie in Title 49 of the Code of Federal Regulations, Parts 172.500 through 172.558) along or upon Interstate 40 or Interstate 275 in Knox County, Tennessee, between the intersection of the above interstates with Interstate 640 on the west, north, or east. This restriction does not apply to the following:

(1) Motor vehicles which have shipments originating at or destined to the City of Knoxville and to service points on U.S. Highway 129 in Blount County as verifie by the appropriate shipping papers.

(2) Motor vehicles which have shipments to be interlined with other carriers or which have shipments transferred to other motor vehicles or aircraft of the same carrier at facilities located in the City of Knoxville or service points on U.S. highway 129 in Blount County.

(3) Motor vehicles which need emergency repairs or warranty work performed at authorized dealers or repair facilities as may be verifie by a physical inspection of the vehicle, by warranty papers in the vehicle, or by other means of verificatio used by the investigating officer.

Carriers and any person operating a motor vehicle containing a package of highway route controlled quantity radioactive materials as define in Title 49, Code of Federal Regulations, Section 173.403(1) must ensure that the vehicle operates over preferred routes as described in Title 49, Code of Federal Regulations, Section 177.825(b)(1).

Unless otherwise indicated, the preferred routes listed below may be used IN ADDITION TO all interstate highway systems (and beltways or bypasses around cities, which are required to be used). Where preferred routes have been designated IN LIEU OF an Interstate Highway System, that fact is indicated.

Effective August 3, 1988

Interstate-640 (in lieu of Interstate-40 in the Knoxville area).

Safe Havens

Local government agencies have found that the following safe havens meet the requirements set forth in 49 CFR Section 397.7. They have also been approved (in writing) by their local Sheriff Departments, giving them permission to be designated as safe havens.

- Truckers Terminal Truck Stop
  Interstate-81, Exit 4 and
  White Pine Road White Pine, Tennessee
- Truckstops of America
  Interstate-40/Interstate-75, Exit 374
  Concord, Tennessee

Special Requirements

None at this time.

Agencies

Tennessee Department of Safety
1148 Foster Avenue
Nashville, Tennessee 37249-1000
Telephone: (615) 251-5171
Fax: (615) 532-1051
Web: www.state.tn.us

Department of Environment and Conservation
Division of Solid Waste Management
L & C Tower, 5th Floor
401 Church St.
Nashville, Tennessee 37243-1535
Telephone: (615) 532-0780
Fax: (615) 532-0886
Web: www.tn.gov/environment

Reserved

TEXAS

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The Department of Public Safety has adopted by reference the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Subpart G of Part 107, Parts 171-173, 177, 178, and 180, and Parts 40, 380, 382, 385, 386, 387, 390-393, and 395-397 of the Federal Motor Carrier Safety Regulations including all interpretations thereto. The adoption became effective June 11, 2008. The adopted regulations apply to vehicles transporting hazardous materials as a cargo or part of a cargo when operated upon the streets and highways of Texas. All references made to other modes of transportation, other than by motor vehicles, will be excluded and not adopted by the department.

The Department of Public Safety exercises regulatory control over the transportation of hazardous materials in the state.

The governing agency for hazardous waste is the Texas Commission on Environmental Quality.

However, the Liquefie Petroleum Gas (LP-Gas) Section of the Safety Division of the Railroad Commission of Texas has jurisdiction over all phases of the LP-gas industry relating to safety in Texas, except for the manufacture and production of LP-gas. The LP-Gas Section also has jurisdiction over liquefie natural gas (LNG) and compressed natural gas (CNG), including the transportation of it. The rules, standards, and codes adopted by the LP-Gas Section do not apply to containers used inaccordance with and subject to regulations of the United States Department of Transportation or to containers that are owned or used by the United States government.

The Railroad Commission of Texas has adopted amendments and a new section, effective February 1, 2001, in order to adopt by reference 49 Code of Federal Regulations Parts 171-180. The Commission adopts the new requirements found in HM-200, which will require all units operated in interstate or intrastate service to comply with MC 330 or MC 331 specifications Only non-specificatio units which meet the exception in 49 CFR Section 173.315(k) may remain in intrastate LP-gas service in Texas.

License/Permit/Registration

Each transport truck, trailer, or motor vehicle equipped with an LP-gas cargo tank and each truck used principally for transporting LP-gas in portable containers shall be registered with the Railroad Commission of Texas. The registration fee for each unit is $270 a year for any LP-gas cargo trailer or semitrailer of 3,501 gallons water capacity or more and $270 a year for any bobtail, or semitrailer of 3,500 gallons water capacity or less, or cylinder delivery unit. The fee must be paid in full before any unit may be registered. A LPG Form 4 (decal) is issued to each unit when it is registered for the transportation of LP-gas.

Each compressed natural gas (CNG), liquefie natural gas (LNG), and liquefie petroleum gas (LPG) transport must be registered with the Railroad Commission of Texas. Current registration fees are $270 per year per unit. A CNG, LNG, or LPG transport is define as any vehicle or combination of vehicles designed for use or used principally for delivering CNG, LNG, or LPG from one place to another. This registration requirement extends to ultimate consumers who transport their own CNG, LNG or LPG for personal consumption.

An appropriate CNG, LNG, OR LPG license from the LP-Gas Section must be issued prior to the transportation of CNG, LNG, or LPG in Texas. This license is issued to the entity transporting the CNG, LNG, or LPG. A CNG, LNG, or LPG license is not required by ultimate consumers who transport their own product for personal consumption. However, these ultimate consumers must be registered with the LP-Gas Section, including any vehicle transporting CNG, LNG, and LPG.

No person may work or be employed in any capacity which requires contact with CNG, LNG, or LPG including CNG, LNG, or LPG systems, until that person has submitted to and passed an LP-Gas Section examination which tests working knowledge of the Texas Natural Resources Code and the Section's CNG, LNG, or LPG safety rules, whichever is applicable, related to the type of LP-gas work, LNG or CNG anticipated. The section applies to all licensees and their employees who perform CNG, LNG, or LPG-related activities. Each applicant shall pay, to the LP-Gas Section in advance, a non-refundable examination fee for each required examination. The fee for all categories of management examination shall be $50 per exam for LPG or CNG and $50 for LNG. The fee for all employee LPG and CNG examinations shall be $20 per exam and $20 for LNG exams. An examination card is issued to those who pass the examination. A new examination card is issued yearly to those who maintain their qualifie status by paying a $35 annual renewal fee for LPG only and $35 for CNG and LNG renewal. Late renewals are permitted.

Transporters of hazardous waste must obtain an EPA identificatio number and register with the Texas Commission on Environmental Quality by receiving a solid waste registration number.

To access a regulatory guidance document that highlights applicable regulations and agency contact information for transporters of hazardous waste and certain other wastes, including asbestos, medical waste, used oil and used oil filters scrap tires, municipal solid waste, and municipal sludge, go to http://www.tceq.texas.gov/publications/rg/rg-086.html.

Routing

As indicated in Title 49, Code of Federal Regulations, Parts 171-180 and 397.

The Texas Department of Transportation (TxDOT) has been designated as the state routing agency in charge of approving non-radioactive hazardous materials (NRHM) routing.

The Texas Department of State Health Services, Bureau of Radiation Control has been designated as the state routing agency in charge of approving radioactive hazardous materials (RHM) routing.

Safe Havens

None at this time.

Special Requirements

None at this time.

Agencies

Texas Department of Public Safety
Texas Highway Patrol Division
5805 North Lamar Blvd.
P.O. Box 4087
Austin, Texas 78773-0500
Telephone: (512) 424-5296
Fax: (512) 424-7788
Web: www.txdps.state.tx.us

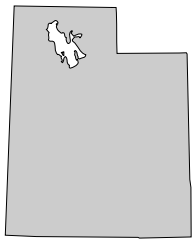
Texas Commission on Environmental Quality,
Registration, and Reporting Section
P.O. Box 13087, HC 129
Austin, Texas 78711-3087
Telephone: (512) 239-6413
Fax: (512) 239-6410
Web: www.tceq.state.tx.us

Texas Department of Transportation
Traffic Operations —TE
125 East 11th Street
Austin, Texas 78701-2483
Telephone: (512) 416-3122
Fax: (512) 416-3299

Texas Department of State Health Services
Bureau of Radiation Control
8407 Wall Street, Room 127N
Austin, Texas 78754
Telephone: (512) 834-6688
Fax: (512) 834-6654

HAZARDOUS MATERIALS COMPLIANCE MANUAL

Railroad Commission of Texas
Safety Division
LP-Gas Section
P.O. Drawer 12967
Austin, Texas 78711-2967
Telephone: (512) 463-6931
Fax: (512) 463-6921
Web: www.rrc.state.tx.us



UTAH

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The Utah Department of Transportation, Motor Carrier Division, has incorporated by reference the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 171-180 as of January 15, 2004. The adoption of these regulations became effective February 15, 2004. These regulations apply to private, common, and contract carriers engaged in intrastate and interstate operations.

The Utah Department of Transportation, Motor Carrier Division, has incorporated by reference the Federal Motor Carrier Safety Regulations Title 49 Code of Federal Regulations (CFR) Parts 350-399 by reference as contained in the January 14, 2004, edition except for Parts 391.11(b)(1), 391.49, 395.1(k), 395.1(l), 395.1(m) and 395.1(n).

The Utah Department of Transportation exercises regulatory control over the transportation of hazardous materials in the state.

The Department of Environmental Quality has been designated as the lead agency in developing and administering the hazardous waste management program in Utah.

License/permit/registration

No permit is required to transport hazardous materials.

Transporters of hazardous waste must have an EPA identificatio number.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180 and 397.

Safe havens

None at this time.

Special requirements

None at this time.

Agencies

Department of Transportation
Motor Carrier Division
4501 South 2700 West
Box 148240
Salt Lake City, Utah 84119
Telephone: (801) 965-4892
Fax: (801) 965-4211
Web: www.dot.state.ut.us

Division of Solid and Hazardous Waste
Department of Environmental Quality
195 North 1950 West
P.O. Box 144880
Salt Lake City, Utah 84114-4880
Telephone: (801) 536-0200
Fax: (801) 536-0222
e-mail: deqinfo@utah.gov
Web: www.deq.utah.gov/

VERMONT

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a final rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specifically relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflects this state's most current adoption/incorporation.

The Vermont Agency for Transportation has incorporated by reference the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 100-199, revised October 1, 1992 and Parts 390-397 and 399 of the Federal Motor Carrier Safety Regulations, revised October 1, 1992 and any amendments thereto. The following sections of Part 176 Carriage by Vessel were not adopted: 176.15, 176.18, 176.415, and 176.900-176.905. This adoption regulates interstate carriers and intrastate carriers.

The Vermont Agency of Transportation makes the regulations for the transportation of hazardous materials and the Vermont Department of Motor Vehicles and the Vermont State Police enforce the regulations.

The Agency of Natural Resources has been designated as the lead agency in developing and administering the hazardous waste management program in Vermont.

License/Permit/Registration

No permit is required for transportation of hazardous materials.

Transporters must be certified with the Agency of Natural Resources to transport hazardous waste in Vermont. Any person transporting solid or hazardous waste in Vermont needs an individual waste transportation vehicle permit from the Agency of Natural Resources.

Routing

No carrier may transport fissile radioactive materials (49 CFR 173.403(j)) or highway route controlled (49 CFR 173.403(1)) quantities of radioactive materials as defined by the United States Department of Transportation except on designated preferred routes in the manner prescribed by Parts 172, 173 and 177 of Title 49, Code of Federal Regulations. A preferred route shall consist of a state-designated route selected by the Vermont Secretary of Transportation.

Safe Havens

None at this time.

Special Requirements

A driver engaged in the transportation of highway route controlled quantity shipments of radioactive materials shall have no less than three years experience driving the type of vehicle associated with the transport.

An application for approval to transport fissile radioactive materials or highway route controlled quantities of radioactive (RADWAS) in Vermont shall be received by the Secretary not less than seven working days before the date of the proposed shipment. An application shall be in the form and provide all the information required by the Secretary, and shall be accompanied by all of the following, as applicable:

(1) The proposed route of travel in Vermont, specifying each road to be used by route number, name, or other identification, and each railroad or waterway to be utilized.

(2) The names, addresses, and emergency telephone numbers of the shipper, carrier, and receiver of the RADWAS, specifying the individual to contact for current shipment information.

(3) A description of the shipment as specified in the provisions of Title 49, Code of Federal Regulations, Section 172.203(d).

(4) The estimated date and time of all of the following for each shipment, as applicable:

(a) The departure of the RADWAS from the site of origin.

(b) The arrival of the RADWAS at the Vermont boundary and its final destination if the destination is within Vermont.

(c) Scheduled stop(s) in Vermont and reason(s) therefore.

(d) The departure of the RADWAS from Vermont.

(5) Certification that the vehicle has been inspected in compliance with the provisions of Title 49, Code of Federal Regulations, Part 396.

(6) Copies of any required United States Nuclear Regulatory Commission (NRC) approval of the proposed route of travel and any other NRC licensing action specific to the shipment, such as an import license or a license to transport.

(7) A copy of an emergency plan which describes procedures to be taken by the carrier in an emergency to eliminate or minimize the radiation exposure of the public.

(8) A certification that the shipment will be in compliance with these rules and all applicable state and federal statutes, rules, and regulations governing the shipment, including but not limited to Parts 172, 173, and 177 of Title 49, Code of Federal Regulations and Parts 71 and 73 of Title 10, Code of Federal Regulations.

(9) A copy of the certificate of compliance for the container issued by the NRC, as evidence that the container has been approved for hypothetical accident conditions pursuant to the provisions of Title 10, Code of Federal Regulations, Section 71.36.

(10) A certificate that a bond or insurance acceptable to the Vermont Secretary of Transportation has been posted to cover all types of damages caused by the release of the shipped RADWAS materials, and in no event shall such a bond or insurance be for less than Five Million Dollars total damages.

(11) A certificate giving the point of origin and point of destination of the shipment and stating that the route to be used is the shortest and most direct, or if not so, then stating the explicit reason(s) that the proposed route was chosen.

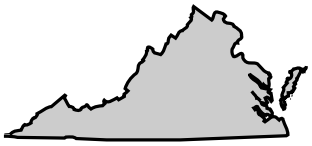
(12) A cashier's check in the amount of $1,000.00 payable to the Treasurer, State of Vermont for each proposed shipment. When moved as a group, two or more vehicles, railcars or barges will be considered one shipment.

Agencies

Agency of Transportation
Department of Motor Vehicles
Enforcement and Safety Division
120 State Street
Montpelier, Vermont 05603-0001
Telephone: (802) 828-2078

Vermont State Police
Commercial Vehicle Enforcement Unit
103 South Main Street
Waterbury, Vermont 05671-2101
Telephone: (802) 244-8727

Agency of Natural Resources
Waste Management Division
Management and Prevention Section
103 South Main Street; West Office Building
Waterbury, Vermont 05671-0404
Telephone: (802) 241-3888



VIRGINIA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The Virginia Waste Management Board has incorporated by reference the federal Hazardous Materials Regulations and the Federal Motor Carrier Safety Regulations, Title 49, Code of Federal Regulations, Parts 107 (Subparts B & G), 171-180, and 390-397, with all federal amendments promulgated through October 1, 2006. Every person who transports or offers for transportation hazardous materials within or through the Commonwealth of Virginia shall comply with this adoption. The latest amendment to the Virginia regulations was effective October 1, 2010. The Virginia Department of Environmental Quality exercises regulatory control over the transportation of hazardous materials in the state.

The Department of Environmental Quality has been designated as the lead agency in developing and administering the hazardous waste management program in Virginia. Compliance inspections and enforcement is administered by the Virginia State Police.

The Chesapeake Bay Bridge-Tunnel District has specifi regulations for the transportation of hazardous materials over the Chesapeake Bay Bridge-Tunnel (Route 13).

The Virginia Department of Transportation has regulatory control over the transportation of hazardous materials on the following bridge-tunnel facilities: Big Walker-Mountain Tunnel (Interstate 77), East River Mountain Tunnel (Interstate 77), Eliza-

beth River Tunnel-Downtown (Interstate 264), Elizabeth River Tunnel-Midtown (Route 58), Hampton Roads Bridge-Tunnel (Interstate 64), and Monitor-Merrimac Memorial Bridge-Tunnel (Interstate 664).

License/permit/registration

No permit is required for transportation of hazardous materials.

Transporters who transport hazardous waste shipments which originate and/or terminate in Virginia must have a transporter permit issued by the Department of Environmental Quality.

Shippers (offerors) transporting hazardous radioactive materials are required to register with the Department of Emergency Management (DEM). The DEM must also be notifie of such shipments.

Safe havens

None at this time.

Routing

The Virginia Department of Transportation regulates the transportation of hazardous materials in the following DOT owned bridge-tunnel facilities.

There are no restrictions on the transportation of hazardous materials in the Big Walker Mountain Tunnel (Interstate 77) and the East River Mountain Tunnel (Interstate 77), so long as transporters and shippers are in compliance with 49 CFR Parts 100 through 180.

Hazardous materials are regulated by the “Hazard Class” of the material being transported in the Elizabeth River Tunnel-Downtown (Interstate 264), Elizabeth River Tunnel-Midtown (Route 58), Hampton Roads Bridge-Tunnel (Interstate 64), and Monitor-Merrimac Memorial Bridge-Tunnel (Interstate 664).

- The following classes are **prohibited** on these bridge-tunnel facilities: Class 1.1, 1.2, 1.3, 2.3, 4.3, and 6.1 (PG I, inhalation hazard only).
- Hazardous materials in the following classes are allowed **only** in non-bulk quantities: Class 2.1, 3, 5.1, 5.2, and 8.
- Hazardous materials in other hazard classes and materials classifie as ORM-D are not prohibited or restricted.

Carriers and any person operating a motor vehicle containing a package of highway route controlled quantity radioactive materials as define in Title 49, Code of Federal Regulations, Section 173.403(1) must ensure that the vehicle operates over preferred routes as described in Title 49, Code of Federal Regulations, Section 177.825(b)(1).

Unless otherwise indicated, the preferred routes listed below may be used IN ADDITION TO all interstate highway systems (and beltways or bypasses around cities, which are required to be used).

Effective March 11, 1994

U.S. Highway 29 between Interstate-66 and Interstate-64.

State Highway 208 from U.S. Route 522 to U.S. Route 1 to Interstate-95.

U.S. Highway 522 from State Highway 208 to Interstate-64.

State Highway 155 from Interstate-64 to State Highway 5 at Charles City.

State Highway 5 from Charles City to State Highway 156.

State Highway 156 to State Highway 10.

State Highway 10 to U.S. Highway 58.

U.S. Highway 460 between Petersburg and U.S. Highway 58.

U.S. Highway 58 from Portsmouth to Interstate-95.

U.S. Highway 17/258 from Interstate-64 to State Highway 10.

U.S. Highway 460 between Lynchburg (Mt. Athos Road) and U.S. Highway 220 Alternate.

U.S. 220 Alternate between U.S. 460 and Interstate-81.

U.S. Highway 460 from West Virginia state line to State Highway 100 at Pearisburg to Dublin to Interstate-81.

Interstate-95 to Interstate-85 to U.S. Highway 460 to Lynchburg (Mt. Athos Road).

Banned: The following routes may not be used.

Interstate-664 between Newport News and Suffolk (Tunnel)

Interstate-64 between Hampton and Norfolk (Tunnel)

Interstate-264 between Norfolk and Portsmouth

Special Requirements

Trucks carrying hazardous materials that require placarding are restricted to the two right lanes of the Virginia portion of the Capital Beltway, between the Woodrow Wilson Bridge on Interstate 95 and the American Legion Bridge. Signs have been posted along the beltway.

Agencies

Department of Environmental Quality
P.O. Box 1105
Richmond, Virginia 23218
Telephone: (804) 698-4000
Fax: (804) 698-4500
Web: www.deq.virginia.gov

Chesapeake Bay Bridge Tunnel
P.O. Box 111
Cape Charles, VA 23310
Telephone: (757) 331-2960

Virginia Department of Transportation
1221 East Broad Street
Richmond, Virginia 23219
Telephone: (804) 371-0891

Department of Emergency Management
10501 Trade Ct.
Richmond, VA 23236
Telephone: (804) 897-6500

Virginia Department of State Police
P.O. Box 27472
Richmond, VA 23261
Telephone: (804) 674-2005 or 674-2838

WASHINGTON

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a final rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specifically relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflects this state's most current adoption/incorporation.

The Washington State Patrol has adopted the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 100 through 199, including any future appendices and amendments. This adoption applies to the transportation of hazardous materials by highway, to the handling and storage operations incident to such transportation, and to the highway portion of an intermodal shipment of hazardous materials. The Washington State Patrol has also adopted the Federal Motor Carrier Safety Regulations, Part 397.

The Washington Utilities and Transportation Commission has adopted the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 170-189 and Part 397 of the Federal Motor Carrier Safety Regulations, including all appendices and amendments in effect on October 1, 1998.

The Washington State Patrol and the Washington Utilities and Transportation Commission exercise regulatory control over the transportation of hazardous materials in the state. The Washington State Patrol is the major regulatory agency for the transportation of hazardous materials. The Washington Utilities and Transportation Commission has jurisdiction over common carrier brokers and household goods carriers.

The Department of Ecology has been designated as the lead agency in developing and administering the hazardous waste program in Washington.

License/Permit/Registration

No permit is required for transportation of hazardous materials.

Hazardous waste transporters need to obtain a State ID number from the Department of Ecology.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180 and 397.

Safe Havens

None at this time.

Special Requirements

None at this time.

Agencies

Washington State Patrol
P.O. Box 42614
Olympia, Washington 98504-2614
Telephone: (360) 596-4000 or (360) 596-3800 (Commercial Vehicle Division)
Fax: (360) 596-3829

Hazardous Waste and Toxics Reduction Program
Department of Ecology
P.O. Box 47600
Olympia, Washington 98504-47600
Telephone: (360) 407-6000

Washington Utilities and Transportation Commission

P. O. Box 47250
1300 South Evergreen Park Drive SW
Olympia, Washington 98504-7250
Telephone: (360) 664-1160
Fax: (360) 586-1150

WEST VIRGINIA

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

The Public Service Commission has adopted the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 171-173, 177-180 and Parts 325, 350, and 382-399 of the Federal Motor Carrier Safety Regulations as amended January 1, 1995. This adoption applies to every motor carrier and every private commercial carrier engaged in intrastate or interstate commerce and was effective October 31, 1995.

The Public Service Commission exercises regulatory control over the transportation of hazardous materials in the state.

License/Permit/Registration

West Virginia is one of fiv states participating in the Uniform State Hazardous Materials Registration and Permitting Program. Under this program, uniform procedures and application forms for registration and permitting of hazardous materials transportation are used by West Virginia, Ohio, Oklahoma, Nevada, and Michigan.

Carriers need to contact their base state to register and apply for the permit. After a carrier has registered, and paid its fees, the base state will issue a permit which will be honored by each state that participates in the Uniform Program. If a carrier's base state is not in the Uniform Program, the carrier must register in the participating statewhere it records the largest percent of its total miles traveled. That state becomes the carrier's designated base state for the Uniform Program.

Persons who transport hazardous materials that require placards; hazardous substances or marine pollutants in bulk; or hazardous wastes in West Virginia must register with the West Virginia Public Service Commission. A carrier who designates another participating state as its base state shall register and obtain a permit from that state before transporting the hazardous material or waste in West Virginia.

For more information on the registration and permitting program contact the West Virginia Public Service Commission, Motor Carrier Section at (304) 340-0456 or FAX (304) 340-0394.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180, and 397.

Safe Havens

None at this time.

Special Requirements

None at this time.

Agency

Motor Carrier Section
Public Service Commission
201 Brooks Street
Charleston, West Virginia 25323
Telephone: (304) 340-0483
Fax: (304) 340-0394

WISCONSIN

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect this state's most current adoption/incorporation.

Wisconsin has adopted by Administrative Rules the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 107, 171-173, 177, 178, and 180. The adoption became effective June 1, 2002, and applies to interstate and intrastate carriers, drivers or vehicles. In April 2009, Wisconsin revised Administrative Rule Trans 326; the revision included changes to language in 326.01 and 326.01(8) to assist in keeping current with federal regulations and out-of-service criteria, and 326.01(7m) was adopted to include 49 CFR Part 385 Subpart E.

The Menominee Indian Tribe of Wisconsin has incorporated by reference the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 130, 171-179, and 180 in effect on June 2, 1994.

The Division of State Patrol exercises regulatory control over the transportation of hazardous materials in the state. The Menominee Indian Tribe of Wisconsin regulates the transportation of hazardous materials throughout the Menominee Indian Reservation.

The Department of Natural Resources has been designated as the lead agency in developing and administering Wisconsin's hazardous waste management program.

License/Permit/Registration

Wisconsin's hazardous materials registration fee was found unconstitutional by the Court of Appeals of Wisconsin. The state no longer collects hazmat fees.

The Menominee Indian Tribe of Wisconsin requires motor carriers on tribal lands, transporting hazardous materials in quantities that require placards, to register with the Environmental Services Department. Registration is required every year between January 1 and January 31. The annual registration fee is $25 and one day trip permits are $20.

Container, tank, or unit inspections may be required. The container inspection fee is $35. The tank inspection fee is $45. The power unit inspection fee is $25. The Tribe will waive inspection fees when the carrier can demonstrate the container, tank, or power unit has successfully passed inspection in another jurisdiction within the last 12 months.

Currently, the DNR regional Environmental Program Associates issue the transportation licenses. To request a license, Wisconsin transporters should call the program associate in the office closest to their business location, and out-of-state transporters should call the office closest to where their vehicles enter the state. The link to the PAs contact information is: http://dnr.wi.gov/topic/Waste/EPAs.html.

Transporters of hazardous waste are required to be licensed by the Menominee Indian Tribe. Call 715/799-3096 for information about registration.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180, and 397.

Safe Havens

None at this time.

Special Requirements

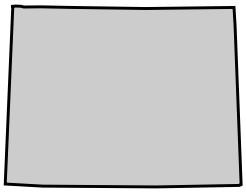
None at this time.

Agencies

Wisconsin Division of State Patrol
4802 Sheboygan Avenue
P.O. Box 7912
Madison, Wisconsin 53707-7912
Telephone: (608) 267-9762
Fax: (608) 267-9600

Bureau of Waste Management
Department of Natural Resources
P.O. Box 7921
Madison, Wisconsin 53707-7921
Telephone: (608) 266-2111

Menominee Indian Tribe of Wisconsin
Environmental Services Department
P.O. Box 910
Keshena, Wisconsin 54135
Telephone: (715) 799-3096
Fax: (715) 799-6153



WYOMING

Relationship to Federal Regulations

On January 8, 1997, the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a fina rule that expanded the scope of the federal Hazardous Materials Regulations (HMR) and gave RSPA authority over intrastate transportation of hazardous materials. The change was intended to raise the level of safety in the transportation of hazardous materials by applying a uniform system of safety regulations to all hazardous materials transported in commerce in the United States.

Therefore, as of the mandatory compliance date of October 1, 1998, shippers, receivers, and carriers that prepare or transport hazardous materials in commerce must follow the requirements in the federal HMR unless specificall relieved of some portion of the regulations by an exception in the HMR.

Not all states have adopted/incorporated the current federal HMR. This section reflect Wyoming's most current adoption/incorporation.

The Wyoming Department of Transportation requires compliance with the federal Hazardous Materials Regulations, Title 49, Code of Federal Regulations, Parts 107, 130, 171-173, 177-180, and Parts 40, 373, 382, 383, 385, 390-393 and 395-397 of the Federal Motor Carrier Safety Regulations as revised.

The Wyoming Department of Transportation exercises regulatory control over the transportation of hazardous materials in the state.

The Department of Environmental Quality is responsible for the hazardous waste management program in Wyoming.

License/Permit/Registration

No permit is required for transportation of hazardous materials.

Transporters need to obtain an EPA identificatio number from the Wyoming Department of Environmental Quality, Solid and Hazardous Waste Division. No state permit or license is currently necessary for hazardous waste transportation in Wyoming. Transportation of radioactive materials does require a permit that can be obtained from the Wyoming Department of Transportation, Vehicle Services Division.

Routing

Only as indicated in Title 49, Code of Federal Regulations, Parts 171-180, and 397.

Safe Havens

None at this time.

Special Requirements

Effective January 1, 1990, an emergency response fee of $200 will be required for each package of radioactive materials (W.S. 37-14-103) transported through the state. The fee can be paid at the Department of Transportation or at Ports of Entry. Contact the Wyoming Department of Transportation for more information.

Agencies

Wyoming Highway Patrol
5300 Bishop Blvd.
Cheyenne, Wyoming 82009-3340
Telephone: (307) 777-4317
Fax: (307) 777-4282

Solid and Hazardous Waste Division
Department of Environmental Quality
122 W. 25th Street
Cheyenne, Wyoming 82002
Telephone: (307) 777-7752
Fax: (307) 777-5978

TABLE OF CONTENTS

ENFORCEMENT

Reserved

Overview

The Transportation Safety Act of 1974, Public Law 93-633, granted to the Secretary of Transportation of the U.S. Department of Transportation the power to authorize any officer, employee, or agent to inspect and examine the records and properties of persons to the extent that they relate to—

″(1) the manufacture, fabrication, marking maintenance, reconditioning, repair, testing, or distribution of packages or containers for use by any person in the transportation of hazardous materials in commerce; or

(2) the transportation or shipment by any person in the transportation of hazardous materials in commerce.″

And, if violations of the regulations are discovered during these authorized examinations and inspections, the penalties may be severe. The Hazardous Materials Regulations (§107.329) state a person who violates a requirement is liable for a civil penalty of not more than $55,000 and not less than $250 for each violation, except the maximum civil penalty is $110,000 if the violation results in death, serious illness or severe injury to any person or substantial destruction of property, and a minimum $495 civil penalty applies to a violation relating to training. When the violation is a continuing one, each day of the violation constitutes a separate offense.

Whatever it may cost you to stay in compliance with the Hazardous Materials Regulations of the Department of Transportation, it must be considered in light of the penalties imposed for non-compliance, as well as the potential consequences of an illegal shipment, handling or transport of hazardous materials.

The goal of the regulations is SAFETY, and the enforcement agencies serve that goal. They exist to ensure compliance and to assist you in meeting your responsibility for compliance. When compliance questions arise, don't hesitate to contact the appropriate agency.

The Pipeline and Hazardous Materials Safety Administration (PHMSA) has enforcement responsibility for shippers and container manufacturers. The individual transport modes also have enforcement responsibility in the areas of inspection, and compliance. This responsibility for monitoring and enforcing the regulations governing hazardous materials by motor vehicle, railroad, vessel and aircraft is carried out through the use of fiel forces that are experienced in inspecting hazardous materials shipments.

The following pages contain enforcement and assistance agencies and offices located around the country. The PHMSA Offices are listed firs followed by the different transport modes — rail, air, water, and highway.

Pipeline and Hazardous Materials Safety Administration

PHMSA

The Secretary delegated a substantial portion of the hazardous materials authority to the Pipeline and Hazardous Materials Safety Administration (PHMSA). The Office of Hazardous Materials Enforcement was created with fiel inspection capability. The Enforcement Office is responsible for developing and enforcing compliance policy and for conducting compliance surveys and inspections with shippers and container manufacturers.

The Office of Hazardous Materials Enforcement headquarters is located in Washington, D.C.—

Office of Hazardous Materials Enforcement
PHH-40
1200 New Jersey Avenue, SE, East Building,
2nd Floor
Washington, D.C. 20590
Telephone: (202) 366-4700
Fax: (202) 366-7435

Regional offices

Regions

Eastern Region
820 Bear Tavern Rd., Suite 306
West Trenton, NJ 08628
Telephone: (609) 989-2256
Fax: (609) 989-2277

Central Region
2300 East Devon Ave., Suite 478
Des Plaines, Illinois 60018-4696
Telephone: (847) 294-8580
Fax: (847) 294-8590

Southwest Region
8701 S. Gessner Rd., Suite 1110
Houston, Texas 77074
Telephone: (713) 272-2820
Fax: (713) 272-2821

Western Region
3401 Centrelake Drive, Suite 550B
Ontario, California 91761
Telephone: (909) 937-3279
Fax: (909) 390-5142

Southern Region
233 Peachtree Street NE, Suite 602
Atlanta, Georgia 30303
Telephone: (404) 832-1140
Fax: (404) 832-1168

Federal Railroad Administration

FRA

The Federal Railroad Administration maintains regional offices located around the country with a number of area offices within the regions. The hazardous materials enforcement and compliance is conducted from these offices. The headquarters of the Federal Railroad Administration is located—

Federal Railroad Administration
Office of Safety (RRS-22)
1120 Vermont Ave, NW
Washington, D.C. 20590
Telephone: (202) 493-6287
Fax: (202) 493-6478

Regional offices

Regions

Region I
Federal Railroad Administration
55 Broadway, Room 1077
Cambridge, Massachusetts 02142
Telephone: (617) 494-2302
Fax: (617) 494-2967

Region II
Federal Railroad Administration
2 International Plaza
Suite 550
Philadelphia, Pennsylvania 19113
Telephone: (610) 521-8200
Fax: (610) 521-8225

Region III
Federal Railroad Administration
61 Forsyth Street, SW, Suite 16T20
Atlanta, Georgia 30303-3104
Telephone: (404) 562-3800
Fax: (404) 562-3830

Region IV
Federal Railroad Administration
200 West Adams Street, Suite 310
Chicago, Illinois 60606
Telephone: (312) 353-6203
Fax: (312) 886-9634

Region V
Federal Railroad Administration
4100 International Plaza, Suite 450
Fort Worth, Texas 76109-4820
Telephone: (817) 862-2222
Fax: (817) 862-2204

Region VI
Federal Railroad Administration
901 Locust Street, Suite 464
Kansas City, Missouri 64106
Telephone: (816) 329-3840
Fax: (816) 329-3867

Region VII
Federal Railroad Administration
801 I Street, Suite 466
Sacramento, California 95814
Telephone: (916) 498-6540
Fax: (916) 498-6546

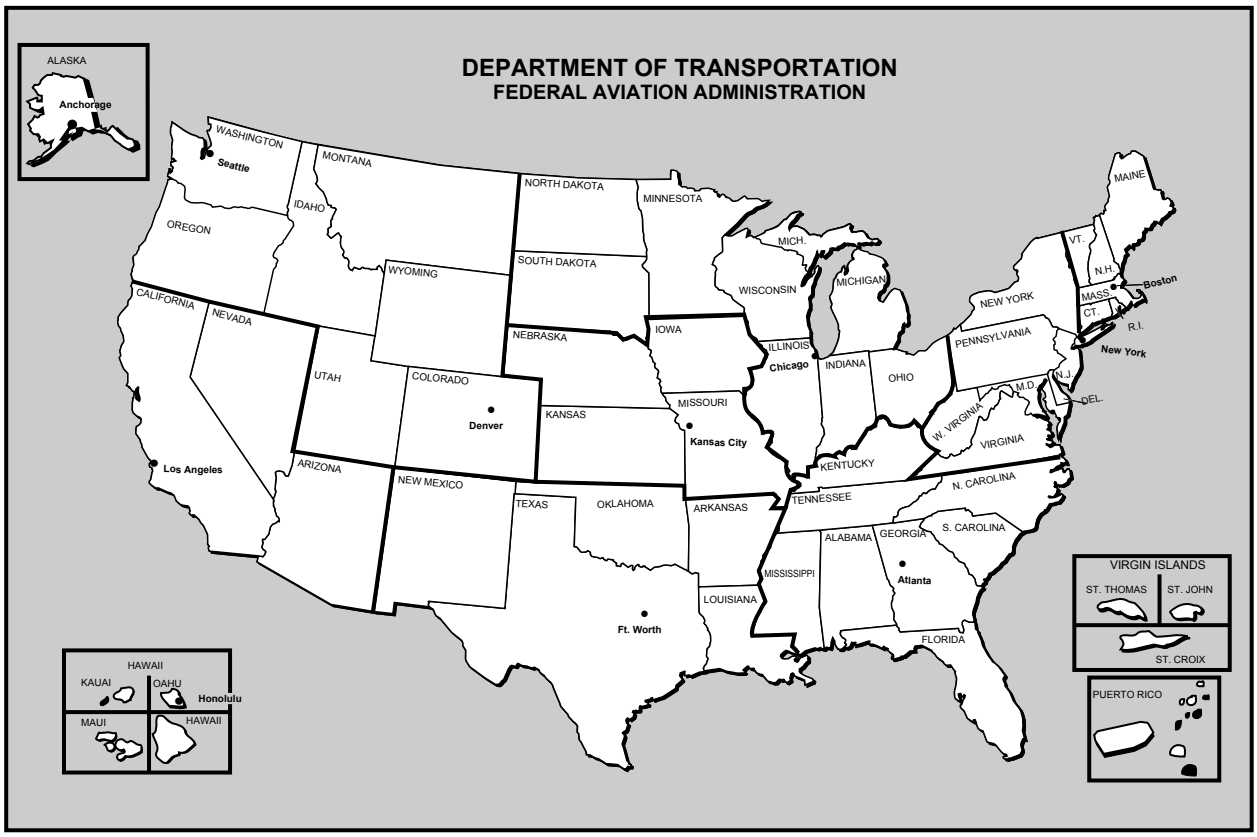
Region VIII
Federal Railroad Administration
703 Broadway, Suite 650
Vancouver, Washington 98660
Telephone: (360) 696-7536
Fax: (360) 696-7548

Federal Aviation Administration

FAA

There are twelve regional offices of the Federal Aviation Administration which may be contacted for compliance information and who enforce the hazardous materials regulations. These offices and locations are illustrated and listed below.

Federal Aviation Administration
U.S. Department of Transportation
Office of Security and Hazardous Materials
800 Independence Ave., SW
Room 300 East
Washington, D.C. 20591
Telephone: (202) 267-7211
Fax: (202) 267-8496



An air carrier is required to make a telephonic report of certain accidents or incidents involving hazardous materials to the nearest Air Carrier District Office, Flight Standards District Office, General Aviation District Office, or to the FAA District holding the Carrier's operating certificate These office locations are listed below.

Regional offices

Regions

Great Lake Region

Federal Aviation Administration
2300 East Devon Avenue, Room 203
Des Plaines, Illinois 60018
Telephone: (847) 294-7122
Fax: (847) 294-7816

New England Region

Federal Aviation Administration
12 New England Executive Park
1 Aviation Plaza
Burlington, Massachusetts 01803
Telephone: (781) 238-7700
Fax: (781) 238-7716

Northwest Mountain Region
Federal Aviation Administration
1601 Lind Avenue SW, Room 530
Renton, Washington 98055-4056
Telephone: (425) 227-2700
Fax: (425) 227-1700

Central Region
Federal Aviation Administration
901 Locust Street, Room 541
Kansas City, Missouri 64106-2641
Telephone: (816) 329-3700
Fax: (816) 329-3753

Eastern Region
Federal Aviation Administration
1 Aviation Plaza, Room 236
Jamaica, New York 11434-4809
Telephone: (718) 553-3104
Fax: (718) 977-6720

Southern Region
Federal Aviation Administration
1701 Columbia Avenue, Room 420
College Park, Georgia 30337-2745
Telephone: (404) 305-6750
Fax: (404) 305-6754

Southwest Region
Federal Aviation Administration
2601 Meacham Blvd.
Fort Worth, Texas 76137-4298
Telephone: (817) 222-5700
Fax: (817) 222-5990

Western-Pacifi Region
Federal Aviation Administration
15000 Aviation Blvd.
Hawthorne, California 90250
Telephone: (310) 725-3700
Fax: (310) 725-6878

Alaska Region
Federal Aviation Administration
222 West 7th Avenue, Suite 14
Anchorage, Alaska 99513
Telephone: (907) 271-5557

U. S. Coast Guard

USCG

The United States Coast Guard is a military, multimission, maritime service and one of the nation's fiv Armed services. Its mission is to protect the public, the environment, and U.S. economic interests — in the nation's ports and waterways, along the coast, on international waters, or in any maritime region as required to support national security.

Coast Guard Headquarters
2100 Second Street, SW
Washington, DC 20593
EMERGENCY: (202) 372-2100
Non-emergency telephone: (202) 372-4000

Federal Motor Carrier Safety Administration

Federal Motor Carrier Safety Administration

1200 New Jersey Avenue, SE
Suite W60-300,
Washington, DC 20590
Main information line: (800) 832-5660

The Federal Motor Carrier Safety Administration maintains Service Centers, to which official correspondence may be directed, and Division Offices, where the safety investigators for each state are located. The staffs at these offices are ready and willing to answer questions and help anyone who is interested in improving commercial vehicle safety.

Service centers

Eastern Service Center

802 Cromwell Park Drive, Suite N
Glen Burnie, MD 21061
Ph: (443) 703-2240
Fax: (443) 703-2253
Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Puerto Rico, Rhode Island, Vermont, Virginia, West Virginia

Southern Service Center

1800 Century Blvd., NE, Suite 1700
Atlanta, GA 30345-3220
Ph: (404) 327-7400
Fax: (404) 327-7349
Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas

Midwestern Service Center
19900 Governors Drive, Suite 210
Olympia Fields, IL 60461
Ph: (708) 283-3577
Fax: (708) 283-3579

Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, Ohio, Wisconsin

Western Service Center
Golden Hills Office Centre
12600 West Colfax Ave.
Suite B-300
Lakewood, CO 80215
Ph: (303) 407-2350
Fax: (303) 407-2339

Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, North Dakota, Oregon, South Dakota, Utah, Washington, Wyoming

Division Offices

Alabama
Federal Motor Carrier Safety Administration
520 Cotton Gin Road
Montgomery, Alabama 36117
Ph: (334) 290-4954
Fax: (334) 290-4944

Alaska
Federal Motor Carrier Safety Administration
Frontier Building, Suite 260
3601 C Street
Anchorage, Alaska 99503
Ph: (907) 271-4068
Fax: (907) 271-4069

Arizona
Federal Motor Carrier Safety Administration
One Arizona Center
400 East Van Buren Street
Suite 401
Phoenix, Arizona 85004-2223
Ph: (602) 379-6851
Fax: (602) 379-3627

Arkansas
Federal Motor Carrier Safety Administration
2527 Federal Building
700 W. Capitol Ave.
Little Rock, Arkansas 72201
Ph: (501) 324-5050
Fax: (501) 324-6562

California
Federal Motor Carrier Safety Administration
1325 J Street, Suite 1540
Sacramento, California 95814
Ph: (916) 930-2760
Fax: (916) 930-2778

Colorado
Federal Motor Carrier Safety Administration
12300 West Dakota Ave., Suite 130
Lakewood, Colorado 80228
Ph: (720) 963-3130
Fax: (720) 963-3131

Connecticut
Federal Motor Carrier Safety Administration
628-2 Hebron Ave., Suite 303
Glastonbury, Connecticut 06033
Ph: (860) 659-6700
Fax: (860) 659-6725

Delaware
Federal Motor Carrier Safety Administration
J. Allen Frear Federal Building
300 South New Street, Suite 1105
Dover, Delaware 19904-6726
Ph: (302) 734-8173
Fax: (302) 734-5380

District of Columbia
Federal Motor Carrier Safety Administration
1990 K Street, NW, Suite 510
Washington, DC 20006
Ph: (202) 219-3576
Fax: (202) 219-3546

Florida
Federal Motor Carrier Safety Administration
545 John Knox Rd., Room 102
Tallahassee, Florida 32303
Ph: (850) 942-9338
Fax: (850) 942-9680

Georgia
Federal Motor Carrier Safety Administration
Two Crown Center
1745 Phoenix Blvd., Suite 380
Atlanta, Georgia 30349
Ph: (678) 284-5130
Fax: (678) 284-5146

Hawaii
Federal Motor Carrier Safety Administration
300 Ala Moana Blvd., Room 3-243
P.O. Box 50226
Honolulu, Hawaii 96850
Ph: (808) 541-2790
Fax: (808) 541-2702

Idaho
Federal Motor Carrier Safety Administration
3200 North Lake Harbor Lane, Suite 161
Boise, Idaho 83703
Ph: (208) 334-1842
Fax: (208) 334-1046

Illinois
Federal Motor Carrier Safety Administration
3250 Executive Park Drive
Springfield Illinois 62703-4514
Ph: (217) 492-4608
Fax: (217) 492-4986

Indiana
Federal Motor Carrier Safety Administration
575 N. Pennsylvania St., Room 261
Indianapolis, Indiana 46204
Ph: (317) 226-7474
Fax: (317) 226-5657

Iowa
Federal Motor Carrier Safety Administration
105 6th St.
Ames, Iowa 50010-6337
Ph: (515) 233-7400
Fax: (515) 233-7494

Kansas
Federal Motor Carrier Safety Administration
1303 SW First American Place, Suite 200
Topeka, Kansas 66604-4040
Ph: (785) 271-1260
Fax: (785) 228-9725

Kentucky
Federal Motor Carrier Safety Administration
330 W. Broadway, Room 124
Frankfort, Kentucky 40601
Ph: (502) 223-6779
Fax: (502) 223-6767

Louisiana
Federal Motor Carrier Safety Administration
5304 Flanders Drive, Suite A
Baton Rouge, Louisiana 70808
Ph: (225) 757-7640
Fax: (225) 757-7636

Maine
Federal Motor Carrier Safety Administration
Edmund S. Muskie Federal Building
40 Western Avenue, Room 608
Augusta, Maine 04330
Ph: (207) 622-8358
Fax: (207) 622-8477

Maryland
Federal Motor Carrier Safety Administration
City Crescent Building
10 South Howard Street, Suite 2710
Baltimore, Maryland 21201
Ph: (410) 962-2889
Fax: (410) 962-3916

Massachusetts
Federal Motor Carrier Safety Administration
50 Mail Road, Suite 212
Burlington, Massachusetts 01803
Ph: (781) 425-3210
Fax: (781) 425-3225

Michigan
Federal Motor Carrier Safety Administration
315 W. Allegan St., Room 219
Lansing, Michigan 48933
Ph: (517) 853-5990
Fax: (517) 377-1868

Minnesota
Federal Motor Carrier Safety Administration
Galtier Plaza
380 Jackson Street, Suite 500
St. Paul, Minnesota 55101
Ph: (651) 291-6150
Fax: (651) 291-6001

Mississippi
Federal Motor Carrier Safety Administration
666 North St., Suite 103
Jackson, Mississippi 39202-3199
Ph: (601) 965-4219
Fax: (601) 965-4674

Missouri
Federal Motor Carrier Safety Administration
3219 Emerald Lane, Suite 500
Jefferson City, Missouri 65109
Ph: (573) 636-3246
Fax: (573) 636-8901

Montana
Federal Motor Carrier Safety Administration
2880 Skyway Drive
Helena, Montana 59602
Ph: (406) 449-5304
Fax: (406) 449-5318

Nebraska
Federal Motor Carrier Safety Administration
100 Centennial Mall North, Room 406
Lincoln, Nebraska 68508
Ph: (402) 437-5986
Fax: (402) 437-5837

Nevada
Federal Motor Carrier Safety Administration
705 N. Plaza St., Suite 204
Carson City, Nevada 89701
Ph: (775) 687-5335
Fax: (775) 687-8353

New Hampshire
Federal Motor Carrier Safety Administration
70 Commercial St., Suite 102
Concord, New Hampshire 03301
Ph: (603) 228-3112
Fax: (603) 223-0390

New Jersey
Federal Motor Carrier Safety Administration
One Independence Way, Suite 120
Princeton, NJ 08540
Ph: (609) 275-2604
Fax: (609) 275-5108

New Mexico
Federal Motor Carrier Safety Administration
2440 Louisiana Blvd., NE
Suite 520
Albuquerque, New Mexico 87110
Ph: (505) 346-7858
Fax: (505) 346-7859

New York
Federal Motor Carrier Safety Administration
Leo W. O'Brien Federal Bldg.
Room 719
Clinton Ave. and N. Pearl Street
Albany, New York 12207
Ph: (518) 431-4145
Fax: (518) 431-4140

North Carolina
Federal Motor Carrier Safety Administration
310 New Bern Ave.
Suite 468
Raleigh, North Carolina 27601
Ph: (919) 856-4378
Fax: (919) 856-4369

North Dakota
Federal Motor Carrier Safety Administration
1471 Interstate Loop
Bismarck, North Dakota 58503
Ph: (701) 250-4346
Fax: (701) 250-4389

Ohio
Federal Motor Carrier Safety Administration
200 N. High St., Room 609
Columbus, Ohio 43215
Ph: (614) 280-5657
Fax: (614) 280-6875

Oklahoma
Federal Motor Carrier Safety Administration
300 N Meridian
Suite 106 South
Oklahoma City, Oklahoma 73107
Ph: (405) 605-6047
Fax: (405) 605-6176

Oregon
Federal Motor Carrier Safety Administration
The Equitable Center
530 Center St., NE, Suite 100
Salem, Oregon 97301-3740
Ph: (503) 399-5775
Fax: (503) 399-5838

Pennsylvania
Federal Motor Carrier Safety Administration
228 Walnut St., Room 560
Harrisburg, Pennsylvania 17101
Ph: (717) 221-4443
Fax: (717) 221-4552

Puerto Rico
Federal Motor Carrier Safety Administration
Torre Chardón, 350 Chardón Street, Suite 207
Hato Rey, Puerto Rico 00918
Ph: (787) 766-5985
Fax: (787) 766-5015

Rhode Island
Federal Motor Carrier Safety Administration
20 Risho Avenue, Suite E
East Providence, Rhode Island 02914
Ph: (401) 431-6010
Fax: (401) 431-6019

South Carolina
Federal Motor Carrier Safety Administration
1835 Assembly St., Suite 1253
Columbia, South Carolina 29201-2430
Ph: (803) 765-5414
Fax: (803) 765-5413

South Dakota
Federal Motor Carrier Safety Administration
116 E. Dakota St., Suite B
Pierre, South Dakota 57501
Ph: (605) 224-8202
Fax: (605) 224-1766

Tennessee
Federal Motor Carrier Safety Administration
640 Grassmere Park, Suite 111
Nashville, Tennessee 37211
Ph: (615) 781-5781
Fax: (615) 781-5755

Texas
Federal Motor Carrier Safety Administration
903 San Jacinto Blvd
Suite 101
Austin, Texas 78701
Ph: (512) 916-5440
Fax: (512) 916-5482

Utah
Federal Motor Carrier Safety Administration
2520 W. 4700 South, Suite 9B
Salt Lake City, Utah 84118-1847
Ph: (801) 963-0096
Fax: (801) 963-0086

Vermont
Federal Motor Carrier Safety Administration
87 State St.
Room 305
P.O. Box 338
Montpelier, Vermont 05601
Ph: (802) 828-4480
Fax: (802) 828-4581

Virginia

Federal Motor Carrier Safety Administration
400 North 8th Street
Suite 780
Richmond, Virginia 23219-4827
Ph: (804) 771-8585
Fax: (804) 771-8681

Washington

Federal Motor Carrier Safety Administration
2424 Heritage Court
Suite 302
Olympia, Washington 98502-6031
Ph: (360) 753-9875
Fax: (360) 753-9024

West Virginia

Federal Motor Carrier Safety Administration
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Guidelines for Civil Penalties

APPENDIX A TO SUBPART D OF PART 107—GUIDELINES FOR CIVIL PENALTIES

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I. This appendix sets forth the guidelines used by the Office of Hazardous Materials Safety (as of October 1, 2005) in making initial baseline determinations for recommending civil penalties. The firs part of these guidelines is a list of baseline amounts or ranges for probable violations frequently cited in enforcement reports referred for action. Following the list of violations are general guidelines used by OHMS in making initial penalty determinations in enforcement cases.

II. LIST OF FREQUENTLY CITED VIOLATIONS

II—List of frequently cited violations

Violation description	Section or cite	Baseline assessment
General Requirements		
A. Registration Requirements:		
Failure to register as an offeror or carrier of hazardous material and pay registration fee	107.608, 107.612	$1,000 + $500 each additional year.
B. Training Requirements:		
1. Failure to provide initial training to hazmat employees (general awareness, function–specific safety, and security awareness training):	172.702.	
a. More than 10 hazmat employees		$700 and up each area.
b. 10 hazmat employees or fewer		$450 and up each area.
2. Failure to provide recurrent training to hazmat employees (general awareness, function-specific safety, and security awareness training).	172.702	$450 and up each area.
3. Failure to provide security training when a security plan is required but has not been developed	172.702	Included in penalty for no security plan.
4. Failure to provide security training when a security plan has been developed but hazmat employees have not been trained concerning the security plan and its implementation.	172.702	$2,500
5. Failure to create and maintain training records:	172.704	
a. more than 10 hazmat employees		$800 and up.
b. 10 hazmat employees or fewer		$500 and up.
C. Security Plans:		
1. Failure to develop a security plan; failure to adhere to security plan:	172.800	
a. §172.504 table 1 materials		$7,500.
b. Packing Group I		$6,000.
c. Packing Group II		$4,500.
d. Packing Group III		$3,000.
2. Incomplete security plan or incomplete adherence (one or more of four required elements missing)		One-quarter (25%) of above for each element.
3. Failure to update a security plan to reflec changing circumstances	172.802(b)	One-third (33%) of baseline for no plan.
4. Failure to put security plan in writing; failure to make all copies identical	172.800(b)	One-third (33%) of baseline for no plan.
D. Notificatio to a Foreign Shipper:		
Failure to provide information of HMR requirements applicable to a shipment of hazardous materials within the United States, to a foreign offeror or forwarding agent at the place of entry into the U.S.	171.12(a)	$1,500 to $7,500 (corresponding to violations by foreign offeror or forwarding agent).
E. Expired Exemption or Special Permit:		
Offering or transporting a hazardous material, or otherwise performing a function covered by an exemption or special permit, after expiration of the exemption or special permit.	171.2(a), (b), (c), Various	$1,000 + $500 each additional year.

II—List of frequently cited violations

Violation description	Section or cite	Baseline assessment
Offeror Requirements—All hazardous materials		
A. Undeclared Shipment:		
Offering for transportation a hazardous material without shipping papers, package markings, labels, or placards.	172.200, 172.300, 172.400, 172.500.	$15,000 and up.
B. Shipping Papers:		
1. Failure to provide a shipping paper for a shipment of hazardous materials.	172.201	$3,000 to $6,000.
2. Failure to follow one or more of the three approved formats for listing hazardous materials on a shipping paper.	172.201(a)(1)	$1,200.
3. Failure to retain shipping papers:		
a. by an offeror, for two years after the date the shipment is provided to the carrier (or 3 years if the material is a hazardous waste).		
b. by a carrier, for one year after the date the shipment is provided to the carrier (or 3 years if the material is a hazardous waste).	172.201(e), 174.24(b), 175.30(a), 176.24(b), 177.817(f).	$1,000.
4. Failure to include a proper shipping name in the shipping description or using an incorrect proper shipping name.	172.202	$800 to $1,600.
5. Failure to include a hazard class/division number in the shipping description.	172.202	$1,000 to $2,000.
6. Failure to include an identificatio number in the shipping description.	172.202	$1,000 to $2,000.
7. Using an incorrect hazard class/identificatio number:	172.202.	
a. that does not affect compatibility requirements		$800.
b. that affects compatibility requirements		$3,000 to $6,000.
8. Using an incorrect identificatio number:	172.202.	
a. that does not change the response information		$800.
b. that changes the response information		$3,000 to $6,000.
9. Failure to include the Packing Group, or using an incorrect Packing Group.	172.202	$1,200.
10. Using a shipping description that includes additional unauthorized information (extra or incorrect words).	172.202	$800.
11. Using a shipping description not in required sequence.	172.202	$500.
12. Using a shipping description with two or more required elements missing or incorrect:	172.202.	
a. such that the material is misdescribed		$3,000.
b. such that the material is misclassifie		$6,000.
13. Failure to include the total quantity of hazardous material covered by a shipping description.	172.202(c)	$500.
14. Failure to list an exemption or special permit number in association with the shipping description.	172.203(a)	$800.
15. Failure to indicate “Limited Quantity” or “Ltd Qty” following the basic shipping description of a material offered for transportation as a limited quantity.	172.203(b)	$500.
16. Failure to include “RQ” in the shipping description to identify a material that is a hazardous substance.	172.203(c)(2)	$500.
17. Failure to include a required technical name in parenthesis for a listed generic or “n.o.s.” material.	172.203(k)	$1,000.
18. Failure to include the required shipper’s certificatio on a shipping paper.	172.204	$1,000.
19. Failure to sign the required shipper’s certificatio on a shipping paper.	172.204	$800.
C. Emergency Response Information Requirements:		
1. Providing or listing incorrect emergency response information with or on a shipping paper.	172.602.	
a. No significan difference in response		$800.
b. Significan difference in response		$3,000 to $6,000.
2. Failure to include an emergency response telephone number on a shipping paper.	172.604	$2,600.
3. Failure to have the emergency response telephone number monitored while a hazardous material is in transportation or listing multiple telephone numbers (without specifying the times for each) that are not monitored 24 hours a day.	172.604	$1,300.
4. Listing an unauthorized emergency response telephone number on a shipping paper.	172.604	$2,600 to $4,200.
5. Listing an incorrect or non–working emergency response telephone number on a shipping paper.	172.604	$1,300.
6. Failure to provide required technical information when the listed emergency response telephone number is contacted.	172.604	$1,300.
D. Package Marking Requirements:		
1. Failure to mark the proper shipping name on a package or marking an incorrect shipping name on a package.	172.301(a)	$800 to $1,600.
2. Failure to mark the identificatio number on a package.	172.301(a)	$1,000 to $2,000.

II—List of frequently cited violations

Violation description	Section or cite	Baseline assessment
3. Marking a package with an incorrect identificatio number.	172.301(a).	
a. that does not change the response information		$800.
b. that changes the response information		$3,000 to $6,000.
4. Failure to mark the proper shipping name and identificatio number on a package.	172.301(a).	$3,000 to $6,000.
5. Marking a package with an incorrect shipping name and identificatio number.	172.301(a).	
a. that does not change the response information		$1,500 to $3,000.
b. that changes the response information		$3,000 to $6,000.
6. Failure to include the required technical name(s) in parenthesis for a listed generic or "n.o.s." entry.	172.301(c).	$1,000.
7. Marking a package as containing hazardous material when it contains no hazardous material.	172.303(a).	$800.
8. Failure to locate required markings away from other markings that could reduce their effectiveness.	172.304(a)(4).	$800.
9. Failure to mark a package containing liquid hazardous materials with required orientation marking.	172.312	$2,500 to $3,500.
10. Failure to mark "RQ" on a non-bulk package containing a hazardous substance.	172.324(b).	$500.
E. Package Labeling Requirements:		
1. Failure to label a package.	172.400	$5,000.
2. Placing a label that represents a hazard other than the hazard presented by the hazardous material in the package.	172.400	$5,000.
3. Placing a label on a package that does not contain a hazardous material.	172.401(a).	$800.
4. Failure to place a required subsidiary label on a package.	172.402	$500 to $2,500.
5. Placing a label on a different surface of the package than, or away from, the proper shipping name.	172.406(a).	$800.
6. Placing an improper size label on a package.	172.407(c).	$800.
7. Placing a label on a package that does not meet color specificatio requirements (depending on the variance).	172.407(d).	$600 to $2,500.
8. Failure to provide an appropriate class or division number on a label.	172.411.	$2,500.
F. Placarding Requirements:		
Failure to properly placard a freight container or vehicle containing hazardous materials:	172.504.	
a. when Table 1 is applicable		$1,000 to $9,000.
b. when Table 2 is applicable		$800 to $7,200.
G. Packaging Requirements:		
1. Offering a hazardous material for transportation in an unauthorized non-UN standard or nonspecificatio packaging (includes failure to comply with the terms of an exemption or special permit authorizing use of a nonstandard or nonspecificatio packaging).	Various.	
a. Packing Group I (and §172.504 Table I materials).		$9,000.
b. Packing Group II		$7,000.
c. Packing Group III		$5,000.
2. Offering a hazardous material for transportation in a self-certifie packaging that has not been subjected to design qualificatio testing:.	178.601 & Various.	
a. Packing Group I (and §172.504 Table I materials).		$10,800.
b. Packing Group II		$8,400.
c. Packing Group III		$6,000.
3. Offering a hazardous material for transportation in a packaging that has been successfully tested to an applicable UN standard but is not marked with the required UN marking.	178.503(a).	$3,600.
4. Failure to close a UN standard packaging in accordance with the closure instructions.	173.22(a)(4)	$2,500.
5. Offering a hazardous material for transportation in a packaging that leaks during conditions normally incident to transportation:	173.24(b).	
a. Packing Group I (and §172.504 Table I materials).		$12,000.
b. Packing Group II		$9,000.
c. Packing Group III		$6,000.
6. Overfillin or underfillin a package so that the effectiveness is substantially reduced:	173.24(b).	
a. Packing Group I (and §172.504 Table I materials).		$9,000.
b. Packing Group II		$6,000.
c. Packing Group III		$3,000.

II—List of frequently cited violations

Violation description	Section or cite	Baseline assessment
7. Offering a hazardous material for transportation after October 1, 1996, in a unauthorized non-UN standard packaging marked as manufactured to a DOT specification	171.14.	
a. packaging meets DOT specificatio		$3,000.
b. packaging does not meet DOT specificatio		$5,000 to $9,000.
8. Failure to mark an overpack with a statement that the inside packages comply with prescribed specification or standards when specificatio or standard packaging is required.	173.25(a)(4)	$3,000.
9. Filling an IBC or a portable tank (DOT, UN, or IM) that is out of test and offering hazardous materials for transportation in that IBC or portable tank.	173.32(a), 180.352, 180.605.	
a. All testing overdue		$3,500 to $7,000.
b. Only periodic (5 year) test overdue		$3,500.
c. Only intermediate periodic (2.5 year) tests overdue		$3,500.
10. Failure to provide the required outage in a portable tank that results in a release of hazardous materials.	173.32(f)(6)	$6,000 to $12,000.
Offeror Requirements—Specifi hazardous materials		
A. Cigarette Lighters:		
Offering for transportation an unapproved cigarette lighter, lighter refill or similar device, equipped with an ignition element and containing fuel.	173.21(i)	$7,500.
B. Class 1—Explosives:		
1. Failure to mark the package with the EX number for each substance contained in the package or, alternatively, indicate the EX number for each substance in association with the description on the shipping description.	172.320	$1,200.
2. Offering an unapproved explosive for transportation:		173.54,
a. Div. 1.3 and 1.4 firework meeting the chemistry requirements (quantity and type) of APA Standard 87-1.	173.56(b)	$5,000 to $10,000.
b. All other explosives (including forbidden)		$10,000 and up.
3. Offering a leaking or damaged package of explosives for transportation.	173.54(c)	$10,000 and up.
4. Packaging explosives in the same outer packaging with other materials.	173.61	$2,500 to $5,000.
C. Class 7—Radioactive Materials:		
1. Failure to include required additional entries, or providing incorrect information for these additional entries.	172.203(d)	$1,000 to $3,000.
2. Failure to mark the gross mass on the outside of a package of Class 7 material that exceeds 110 pounds.	172.310(a)	$800.
3. Failure to mark each package in letters at least 13 mm (12 inch) high with the words “Type A” or “Type B” as appropriate.	172.310(b)	$800.
4. Placing a label on Class 7 material that understates the proper label category.	172.403	$5,000.
5. Placing a label on Class 7 material that fails to contain(or has erroneous) entries for the name of the radionuclide(s), activity, and transport index.	172.403(g)	$2,000 to $4,000.
6. Failure to meet one or more of the general design requirements for a package used to ship a Class 7 material.	173.410	$5,000.
7. Failure to comply with the industrial packaging (IP) requirements when offering a Class 7 material for transportation.	173.411	$5,000.
8. Failure to provide a tamper–indicating device on a Type A package used to ship a Class 7 material.	173.412(a)	$2,000.
9. Failure to meet the additional design requirements of a Type A package used to ship a Class 7 material.	173.412(b)–(i)	$5,000.
10. Failure to meet the performance requirements for a Type A package used to ship a Class 7 material.	173.412(j)–(l)	$8,400.
11. Offering a DOT specificatio 7A packaging without maintaining complete documentation of tests and an engineering evaluation or comparative data:	173.415(a), 173.461.	
a. Tests and evaluation not performed		$8,400.
b. Complete records not maintained		$2,000 to $5,000.
12. Offering any Type B, Type B(U), Type B(M) packaging that failed to meet the approved DOT, NRC or DOE design, as applicable.	173.416	$9,000.
13. Offering a Type B packaging without holding a valid NRC approval certificate	173.471(a).	
a. Never having obtained one		$3,000.
b. Holding an expired certificat		$1,000.
14. Failure to meet one or more of the special requirements for a package used to ship uranium hexafluoride	173.420	$10,800.
15. Offering Class 7 material for transportation as a limited quantity without meeting the requirements for limited quantity.	173.421(a)	$4,000.
16. Offering a multiple-hazard limited quantity Class 7 material without addressing the additional hazard.	173.423(a)	$500 to $2,500.

II—List of frequently cited violations

Violation description	Section or cite	Baseline assessment
17. Offering Class 7 low specifi activity (LSA) materials or surface contaminated objects (SCO) with an external dose rate that exceeds an external radiation level of 1 rem/hr at 3 meters from the unshielded material.	173.427(a)(1)	$6,000.
18. Offering Class 7 LSA materials or SCO as exclusive use without providing specifi instructions to the carrier for maintenance of exclusive use shipment controls.	173.427(a)(6)	$1,000.
19. Offering in excess of Type A quantity of a Class 7 material in a Type A packaging	173.431	$12,000.
20. Offering a package that exceeds the permitted limits for surface radiation or transport index	173.441	$10,000 and up.
21. Offering a package without determining the level of removable external contamination, or that exceeds the limit for removable external contamination.	173.443	$5,000 and up.
22. Storing packages of radioactive material in a group with a total transport index more than 50	173.447(a)	$5,000 and up.
23. Offering for transportation or transporting aboard a passenger aircraft any single package or overpack of Class 7 material with a transport index greater than 3.0.	173.448(e)	$5,000 and up.
24. Exporting a Type B, Type B(U), Type B(M), or fissil package without obtaining a U.S. Competent Authority Certificat or, after obtaining a U.S. Competent Authority Certificate failing to submit a copy to the national competent authority of each country into or through which the package is transported.	173.471(d)	$3,000.
25. Offering special form radioactive materials without maintaining a complete safety analysis or Certificat of Competent Authority.	173.476(a), (b)	$2,500.
D. Class 2—Compressed Gases in Cylinders:		
1. Filling and offering a cylinder with compressed gas when the cylinder is out of test	173.301(a)(6)	$4,200 to $10,400.
2. Failure to check each day the pressure of a cylinder charged with acetylene that is representative of that day's compression, after the cylinder has cooled to a settled temperature, or failure to keep a record of this test for 30 days.	173.303(d)	$5,000.
3. Offering a limited quantity of a compressed gas in a metal container for the purpose of propelling a non-poisonous material and failure to heat the cylinder until the pressure is equivalent to the equilibrium pressure at 130°F, without evidence of leakage, distortion, or other defect.	173.306(a)(3), (h)	$1,500 to $6,000.
Manufacturing, Reconditioning, Retesting Requirements		
A. Third-Party Packaging Certifier (General):		
Issuing a certificatio that directs the packaging manufacturer to improperly mark a packaging (e.g., steel drum to be marked UN 4G).	171.2(e), 178.2(b), 178.3(a), 178.503(a)	$500 per item.
B. Packaging Manufacturers (General):		
1. Failure of a manufacturer or distributor to notify each person to whom the packaging is transferred of all the requirements not met at the time of transfer, including closure instructions.	178.2(c)	$2,500.
2. Failure to insure a packaging certifie as meeting the UN standard is capable of passing the required performance testing.	178.601(b).	
a. Packing Group I (and §172.504 Table 1 materials)		$10,800.
b. Packing Group II		$8,400.
c. Packing Group III		$6,000.
3. Certifying a packaging as meeting a UN standard when design qualificatio testing was not performed.	178.601(d).	
a. Packing Group I (and §172.504 table 1 materials)		$10,800.
b. Packing Group II		$8,400.
c. Packing Group III		$6,000.
4. Failure to conduct periodic retesting on UN standard packaging (depending on length of time and Packing Group).	178.601(e)	$2,000 to $10,800.
5. Failure to properly conduct testing for UN standard packaging (e.g., testing with less weight than marked on packaging; drop testing from lesser height than required; failing to condition fiberboar boxes before design test):.		
a. Design qualificatio testing	178.601(d)	$2,000 to $10,800.
b. Periodic retesting	178.601(e)	$500 to $10,800.
6. Marking, or causing the marking of, a packaging with the symbol of a manufacturer or packaging certifie other than the company that actually manufactured or certifie the packaging.	178.2(b), 178.3(a), 178.503(a)(8)	$7,200.
7. Failure to maintain testing records	178.601(l).	
a. Design qualificatio testing		$1,000 to $5,000.
b. Periodic retesting		$500 to $2,000.
8. Improper marking of UN certificatio	178.503	$500 per item.

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Violation description	Section or cite	Baseline assessment
9. Manufacturing DOT specificatio packaging after October 1, 1994 that is not marked as meeting a UN performance standard.	171.14.	
a. If packaging does meet DOT specificatio		$3,000.
b. If packaging does not meet DOT specificatio		$6,000 to $10,800.
C. Drum Manufacturers & Reconditioners:		
1. Failure to properly conduct production leakproofness test on a new or reconditioned drum.	178.604(b), (d), 173.28(b)(2)(i).	
a. Improper testing		$2,000.
b. No testing performed		$3,000 to $5,000.
2. Marking an incorrect registration number on a reconditioned drum.	173.28(b)(2)(ii).	
a. Incorrect number.		$800.
b. Unauthorized use of another reconditioner's number.		$7,200.
3. Representing, marking, or certifying a drum as a reconditioned UN standard packaging when the drum does not meet a UN standard.	173.28(c), (d)	$6,000 to $10,800.
4. Representing, marking, or certifying a drum as altered from one UN standard to another, when the drum has not actually been altered.	173.28(d)	$500.
D. IBC and Portable Tank Requalification		
1. Failure to properly mark an IBC or portable tank with the most current retest and/or inspection information.	180.352(e), 178.703(b), 180.605(k)	$500 per item.
2. Failure to keep complete and accurate records of IBC or portable tank retest and reinspection.	180.352(f), 180.605(l).	
a. No records kept.		$4,000.
b. Incomplete or inaccurate records		$1,000 to $3,000.
3. Failure to make reinspection and retest records available to a DOT representative upon request.	180.352(f), 49 U.S.C. 5121(b)(2)	$1,000.
E. Cylinder Manufacturers & Rebuilders:		
1. Manufacturing, representing, marking, certifying, or selling a DOT high–pressure cylinder that was not inspected and verifie by an approved independent inspection agency.	Various	$7,500 to $15,000.
2. Failure to have a registration number or failure to mark the registration number on the cylinder.	Various	$800.
3. Marking another company's number on a cylinder.	Various	$7,200.
4. Failure to mark the date of manufacture or lot number on a DOT-39 cylinder.	178.65(i)	$3,000.
5. Failure to have a chemical analysis performed in the U.S. for a material manufactured outside the U.S./failure to obtain a chemical analysis from the foreign manufacturer.	Various	$5,000.
6. Failure to meet wall thickness requirements	Various	$7,500 to $15,000.
7. Failure to heat treat cylinders prior to testing	Various	$5,000 to $15,000.
8. Failure to conduct a complete visual internal examination.	Various	$2,500 to $6,200.
9. Failure to conduct a hydrostatic test, or conducting a hydrostatic test with inaccurate test equipment.	Various	$2,500 to $6,200.
10. Failure to conduct a flattenin test	Various	$7,500 to $15,000.
11. Failure to conduct a burst test on a DOT-39 cylinder.	1 78.65(f)(2)	$5,000 to $15,000.
12. Failure to have inspections and verification performed by an inspector.	Various	$7,500 to $15,000
13. Failure to maintain required inspector's reports	Various.	
a. No reports at all		$5,000.
b. Incomplete or inaccurate reports		$1,000 to $4,000.
14. Representing a DOT-4 series cylinder as repaired or rebuilt to the requirements of the HMR without being authorized by the Associate Administrator.	180.211(a)	$6,000 to $10,800.
F. Cylinder Requalification		
1. Failure to remark as DOT 3AL an aluminum cylinder manufactured under a former exemption or special permit.	173.23(c)	$800.
2. Certifying or marking as retested a nonspecificatio cylinder.	180.205(a)	$800.
3. Failure to have retester's identificatio number (RIN).	180.205(b)	$4,000
4. Failure to have current authority due to failure to renew a retester's identificatio number (RIN).	180.205(b)	$2,000.
5. Failure to have a retester's identificatio number and marking another RIN on a cylinder.	180.205(b)	$7,200.
6. Marking a RIN before successfully completing a hydrostatic retest.	180.205(b)	$800.
7. Representing, marking, or certifying a cylinder as meeting the requirements of an exemption or special permit when the cylinder was not maintained or retested in accordance with the exemption or special permit.	171.2(c), (e), 180.205(c), Applicable Exemption or Special Permit	$2,000 to $6,000.
8. Failure to conduct a complete visual external and internal examination.	180.205(f)	$2,100 to $5,200.

II—List of frequently cited violations

Violation description	Section or cite	Baseline assessment
9. Failure to conduct visual inspection or hydrostatic retest.	180.205(f) & (g)	$4,200 to $10,400.
10. Performing hydrostatic retesting without confirmin the accuracy of the test equipment.	180.205(g)(3)	$2,100 to $5,200.
11. Failure to hold hydrostatic test pressure for 30 seconds or sufficiently longer to allow for complete expansion.	180.205(g)(5)	$3,100.
12. Failure to perform a second retest, after equipment failure, at a pressure increased by the lesser of 10% or 100 psi (includes exceeding 90% of test pressure prior to conducting a retest).	180.205(g)	$3,100.
13. Failure to condemn a cylinder when required (e.g., permanent expansion of 10% [5% for certain exemption cylinders], internal or external corrosion, denting, bulging, evidence of rough usage).	180.205(i)	$6,000 to $10,800.
14. Failure to properly mark a condemned cylinder or render it incapable of holding pressure.	180.205(i)(2)	$800.
15. Failure to notify the cylinder owner in writing when a cylinder has been condemned.	180.205(i)(2)	$1,000.
16. Failure to perform hydrostatic retesting at the minimum specifie test pressure.	180.209(a)(1)	$2,100 to $5,200.
17. Marking a star on a cylinder that does not qualify for that mark.	180.209(b)	$2,000 to $4,000.
18. Marking a "+" sign on a cylinder without determining the average or minimum wall stress by calculation or reference to CGA Pamphlet C–5.	173.302a(b)	$2,000 to $4,000.
19. Marking a cylinder in or on the sidewall when not permitted by the applicable specification	180.213(b)	$6,000 to $10,800.
20. Failure to maintain legible markings on a cylinder	180.213(b)(1)	$800.
21. Marking a DOT 3HT cylinder with a steel stamp other than a low-stress steel stamp.	180.213(c)(2)	$6,000 to $10,800.
22. Improper marking of the RIN or retest date on a cylinder.	180.213(d)	$800.
23. Marking an FRP cylinder with steel stamps in the FRP area of the cylinder such that the integrity of the cylinder is compromised.	Applicable Exemption or Special Permit	$6,000 to $10,800.
24. Failure to maintain current copies of 49 CFR, DOT exemptions or special permits, and CGA Pamphlets applicable to inspection, retesting, and marking activities.	180.215(a)	$600 to $1,200.
25. Failure to keep complete and accurate records of cylinder reinspection and retest.	180.215(b).	
a. No records kept.		$4,000.
b. Incomplete or inaccurate records		$1,000 to $3,000.
26. Failure to report in writing a change in name, address, ownership, test equipment, management, or retester personnel.	171.2(c) & (e), Approval Letter	$600 to $1,200.
Carrier Requirements		
A. Incident Notification		
1. Failure to give immediate notificatio of a reportable hazardous materials incident.	171.15	$3,000.
2. Failure to fil a written hazardous material incident report within 30 days following an unintentional release of hazardous materials in transportation (or other reportable incident).	171.16	$500 to $2,500.
B. Shipping Papers:		
Failure to retain shipping papers for 375 days after a hazardous material (or 3 years for a hazardous waste) is accepted by the initial carrier.	174.24(b), 175.30(a)(2), 176.24(b), 177.817(f)	$1,000.
C. Stowage/transportation Requirements:		
1. Transporting packages of hazardous material that have not been secured against movement.	Various	$3,000.
2. Failure to properly segregate hazardous materials	Various	$7,500 and up.
3. Transporting explosives in a motor vehicle containing metal or other articles or materials likely to damage the explosives or any package in which they are contained, without segregating in different parts of the load or securing them in place in or on the motor vehicle and separated by bulkheads or other suitable means to prevent damage.	177.835(i)	$5,200.
4. Transporting railway track torpedoes outside of flaggin kits, in violation of DOT–E 7991.	171.2(b) & (e)	$7,000.
5. Transporting Class 7 (radioactive) material having a total transport index greater than 50.	177.842(a)	$5,000 and up.
6. Transporting Class 7 (radioactive) material without maintaining the required separation distance.	177.842(b)	$5,000 and up.
7. Failure to comply with requirements of an exemption or special permit authorizing the transportation of Class 7 (radioactive) material having a total transportation index of 50.	171.2(b) & (e).	
a. Failure to have the required radiation survey record.		$5,000.
b. Failure to have other required documents		$500 each.
c. Other violations		$5,000 and up.

III. Consideration of statutory criteria

A. These guidelines are used by the Office of Hazardous Materials Safety (OHMS) in setting initial proposed penalties for hazmat violations. They indicate baseline amounts or ranges for probable violations frequently cited in enforcement reports and set forth general OHMS policy for considering statutory criteria.

B. The initial baseline determination partially considers the nature, extent, circumstances, and gravity of the alleged violation. That determination then is adjusted to consider all other evidence concerning the nature, extent, circumstances, and gravity of the alleged violation; degree of culpability; history of prior violations; ability to pay; effect of the penalty on ability to continue to do business; and such other matters as justice may require (a major component of which is corrective action taken by a respondent to prevent a recurrence of similar violations). In making a penalty recommendation, the baseline or range may be increased or decreased on the basis of evidence pertaining to these factors.

C. The following miscellaneous factors are used to implement one or more of the statutory assessment criteria.

IV. Miscellaneous factors affecting penalty amounts

A. Corrective action

1. A proposed penalty is mitigated for documented corrective action of alleged violations taken by a respondent. Corrective action may occur: (1) After an inspection and before a Notice of Probable Violation (NOPV) is issued; (2) on receipt of an NOPV; or (3) after receipt of an NOPV (possibly after it is solicited by an PHMSA attorney). In general, corrective action may reduce a penalty up to 25%. Mitigation may be taken into account in the referral memo or may be recommended prior to issuance of an Order by PHMSA's Chief Counsel.

2. The two primary factors in determining the penalty reduction are extent and timing of the corrective action. In other words, mitigation will be determined on the basis of how much corrective action was taken and when it was taken. Systemic action to prevent future violations is given greater consideration than action simply to remedy violations identifie during the inspection.

3. Mitigation is applied to individual violations. Thus, in a case with two violations, if corrective action for the firs violation is more extensive than for the second, the penalty for the firs will be mitigated more than that for the second.

B. Respondents that re-ship

A shipper that reships materials received from another company, in the same packaging and without opening or altering the package, independently is responsible for ensuring that the shipment complies with Federal hazmat law, and independently may be subject to enforcement action if the package does not comply. Nevertheless, the reshipper is considered to have a lesser level of responsibility for compliance in those respects in which it reasonably relies on the compliance of the package as received. In most cases of this type, OHMS will discount the applicable baseline standard by about 25%. The specifi knowledge and expertise of all parties must be considered in discounting for reliance on a prior shipper. This discount is applied before any consideration of mitigation based on corrective action.

C. Penalty increases for multiple counts

Under the Federal hazmat law, 49 U.S.C. 5123(a), each violation of the HMR and each day of a continuing violation (except for violations pertaining to packaging manufacture or qualification is subject to a civil penalty of up to $55,000 or $110,000 for a violation occurring on or after January 1, 2010. Absent aggravating factors, OHMS, in its exercise of discretion, ordinarily will apply a single penalty for multiple counts or days of violation. In a number of cases, particularly those involving shippers, an inspector may cite two or more similar packaging violations for different hazardous materials. For example, the inspector may cite the same marking violation for two or more packages. OHMS usually will consider those additional violations as counts of the same violation and will not recommend multiples of the same baseline penalty. Rather, OHMS usually will recommend the baseline penalty for a single violation, increased by 25% for each additional violation.

D. Financial considerations

1. Mitigation is appropriate when the baseline penalty would (1) exceed an amount that the respondent is able to pay, or (2) have an adverse effect on the respondent's ability to continue in business. These criteria relate to a respondent's entire business, and not just the product line or part of its operations involved in the violation(s). Beyond the overall financia size of the respondent's business, the relevant items of information on a respondent's balance sheet include the current ratio (current assets to current liabilities), the nature of current assets, and net worth (total assets minus total liabilities).

2. These figure are considered on a case-by-case basis. In general, however, a current ratio close to or below 1.0 means that the company may have difficulty in paying a large penalty, and may justify reduction of the penalty or an installment payment plan. A small amount of cash on hand representing limited liquidity, even with substantial other current assets (such as accounts receivable or inventory), may warrant a short-term payment plan. Respondent's income statement also will be reviewed to determine whether a payment plan is appropriate.

3. Many companies are able to continue in business for extended periods of time with a small or negative net worth, and many respondents have paid substantial civil penalties in installments even though net worth was negative. For this reason, negative net worth alone does not always warrant reduction of a proposed penalty or even, in the absence of factors discussed above, a payment plan.

4. In general, an installment payment plan may be justifie where reduction of a proposed penalty is not, but the appropriateness of either (or both) will depend on the circumstances of the case. The length of a payment plan should be as short as possible, but the plan may consider seasonal fluctuation in a company's income if the company's business is seasonal (e.g., swimming pool chemical sales, firework sales) or if the company has documented specifi reasons for current non-liquidity.

5. Evidence of financia condition is used only to decrease a penalty, and not to increase it.

E. Penalty increases for prior violations

The baseline penalty presumes an absence of prior violations. If prior violations exist, generally they will serve to increase a proposed penalty. The general standards for increasing a baseline proposed penalty on the basis of prior violations are as follows:

1. For each prior civil or criminal enforcement case—25% increase over the pre-mitigation recommended penalty.

2. For each prior ticket—10% increase over the pre-mitigation recommended penalty.

3. A baseline proposed penalty will not be increased more than 100% on the basis of prior violations.

4. A case or ticket of prior violations initiated in a calendar year more than six years before the calendar year in which the current case is initiated normally will not be considered in determining a proposed penalty for the current violation(s).

F. Penalty increases for use of expired special permits

Adjustments to the base line figure for use of expired special permits can be made depending on how much material has been shipped during the period between the expiration date and the renewal date. If the company previously has been found to have operated under an expired special permit, the penalty is normally doubled. If the company has been previously cited for other violations, the penalty generally will be increased by about 25%.

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DATA SOURCES

Reserved

Associations and government agencies

There are a number of government agencies and associations which are directly or indirectly involved in the shipping, handling, or transportation of hazardous materials. These sources can be of assistance with problems encountered with the safe handling of hazardous materials.

These agencies and associations are arranged alphabetically by the name of the government body or the association as appropriate.

Air Transport Association of America
1301 Pennsylvania Avenue, NW,
Suite 1100
Washington, D.C. 20004
Telephone: (202) 626-4000

American Chemical Society
1155 Sixteenth Street, NW
Washington, D.C. 20036
Telephone: (202) 872-4600

American Iron and Steel Institute
1140 Connecticut Avenue, NW, Suite 705
Washington, D.C. 20036
Telephone: (202) 452-7100

American National Standards Institute (ANSI)
1899 L Street, NW, 11th Floor
Washington, DC 20036
Telephone: (202) 293-8020

American Petroleum Institute (API)
1220 L Street, NW
Washington, D.C. 20005-4070
Telephone: (202) 682-8000

American Society for Testing and Materials (ASTM)
100 Barr Harbor Drive
P.O. Box C700
West Conshohocken, Pennsylvania 19428-2959
Telephone: (610) 832-9500

American Society of Mechanical Engineers (ASME)
Three Park Avenue
New York, New York 10016-5990
Telephone: (800) 843-2763

Association of American Railroads (AAR)
425 Third Street, SW
Suite 1000
Washington, D.C. 20024
Telephone: (202) 639-2100

American Trucking Associations, Inc. (ATA)
950 North Glebe Road, Suite 210
Arlington, VA 22203-4181
Telephone: (703) 838-1700

Aluminum Association, The
1525 Wilson Boulevard, Suite 600
Arlington, VA 22209
Telephone: (703) 358-2960

American Chemistry Council (ACC)
700 Second Street NE
Washington, DC 20002
Telephone: (202) 249-7000

American Water Works Association (AWWA)
6666 W. Quincy Avenue
Denver, Colorado 80235
Telephone: (303) 794-7711

American Welding Society (AWS)
550 NW LeJeune Road
Miami, Florida 33126
Telephone: (305) 443-9353

Bureau of Explosives (B of E)
Transportation Technology Center, Inc.
55500 DOT Road
Pueblo, CO 81001
Telephone: (719) 584-0750

Centers for Disease Control (CDC)
1600 Clifton Road
Atlanta, Georgia 30333
Telephone: (800) 232-4636

Chlorine Institute, The (CI)

1300 Wilson Blvd.
Suite 525
Arlington, Virginia 22209
Telephone: (703) 894-4140

Compressed Gas Association (CGA)

14501 George Carter Way, Suite 103
Chantilly, Virginia 20151
Telephone: (703) 788-2700

Consumer Product Safety Commission

4330 East West Highway
Bethesda, MD 20814
Telephone: (301) 504-7923

COSTHA (Conference on Transportation of Hazardous Articles)

7803 Hill House Court
Fairfax Station, VA 22039
Telephone: (703) 451-4031

Council on Environmental Quality

722 Jackson Place, NW
Washington, D.C. 20506-0003
Telephone: (202) 395-5750

CropLife America

1156 15th Street, NW
Washington, D.C. 20005
Telephone: (202) 296-1585

Dangerous Goods Advisory Council (DGAC)

1100 H Street, NW, Suite 740
Washington, D.C. 20005
Telephone: (202) 289-4550

Fertilizer Institute, The

425 Third Street, SW
Suite 950
Washington, D.C. 20024
Telephone: (202) 962-0490

Food and Drug Administration

10903 New Hampshire Avenue
Silver Spring, MD 20993-0002
Telephone: (888) 463-6332

Institute of Makers of Explosives (IME)

1120 19th Street, NW, Suite 310
Washington, D.C. 20036-3605
Telephone: (202) 429-9280

International Air Transport Association (IATA)

800 Place Victoria, P.O. Box 113
Montreal, Quebec H4Z 1M1
Telephone: (514) 874-0202

33, Route de l'Aeroport
P.O. Box 416
1215 Geneva -15 Airport
Geneva, Switzerland
Telephone: 41 22 770 2525

1201 F Street, NW
Suite 650
Washington DC 20005
Telephone: (202) 628-9292

703 Waterford Way (NW 62nd Avenue)
Suite 600
Miami, Florida 33126
(305) 264-7772

International Atomic Energy Agency (IAEA)

1 United Nations Plaza
Room DC-1-1155
New York, NY 10017
Telephone: (212) 963-6010

International Civil Aviation Organization (ICAO)

999 University Street
Montreal, Quebec, H3C 5H7 Canada
Telephone: (514) 954-8219

International Maritime Organization (IMO)

4, Albert Embankment
London SE1 7SR
United Kingdom
Telephone: +44 (0)20 7735 7611

National Association of Corrosion Engineers (NACE)

1440 South Creek Drive
Houston, Texas 77084-4906
Telephone: (281) 228-6200

National Association of Fire Equipment Distributors

122 S Michigan Avenue, Suite 1040
Chicago, Illinois 60603
Telephone: (312) 461-9600

National Cargo Bureau

17 Battery Place, Suite 1232
New York, New York 10004-1110
Telephone: (212) 785-8300

National Council on Radiation Protection and Measurements (NCRP)
7910 Woodmont Avenue, Suite 400
Bethesda, Maryland 20814-3095
Telephone: (301) 657-2652

National Fire Protection Association (NFPA)
1 Batterymarch Park
Quincy, Massachusetts 02269
Telephone: (617) 770-3000

National Paint and Coatings Association (now American Coatings Association)
1500 Rhode Island Avenue, NW
Washington, D.C. 20005
Telephone: (202) 462-6272

National Tank Truck Carriers, Inc. (NTTC)
950 North Glebe Road, Suite 520
Arlington, Virginia 22203-4183
Telephone: (703) 838-1960

National Transportation Safety Board (NTSB)
490 L'Enfant Plaza, SW
Washington, D.C. 20594
Telephone: (202) 314-6000

National Wooden Pallet and Container Association
1421 Prince Street, Suite 340
Alexandria, VA 22314-2805
Telephone: (703) 519-6104

Occupational Safety & Health Administration (OSHA)
200 Constitution Avenue
Washington, D.C. 20210
Telephone: (800) 321-6742

Society of the Plastics Industry
1667 K Street, NW, Suite 1000
Washington, D.C. 20006
Telephone: (202) 974-5200

Sulphur Institute, The
1020 19th Street, NW, Suite 520
Washington, D.C. 20036
Telephone: (202) 331-9660

Superintendent of Documents
U.S. Government Printing Office
732 N Capitol Street, NW
Washington, D.C. 20401
Telephone: (202) 512-1800

Transportation Research Board
The National Academies
500 Fifth Street, NW
Washington, DC 20001
Telephone: (202) 334-2934

Transportation Safety Institute (TSI)
6500 Sourth Mac Arthur Boulevard
Oklahoma City, Oklahoma 73125
Telephone: (800) 858-2107

U.S. Department of Commerce
1401 Constitution Avenue, NW
Washington, DC 20230
Telephone: (202) 482-2000

U.S. Department of Defense
Directorate for Public Inquiry and Analysis
1400 Defense, Pentagon
Room 2E 565
Washington, D.C. 20301-1400
Telephone: (703) 571-3343

U.S. Environmental Protection Agency (EPA)
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460
Telephone: (202) 272-0167

U.S. Nuclear Regulatory Commission (NRC)
Office of Public Affairs
Washington, DC 20555 - 0001
Telephone: (301) 415-7000

Accident assistance sources

When a hazardous materials accident/incident occurs, protect yourself and the public, secure the area, and call for assistance as soon as conditions permit. Check the shipping documents for the emergency response information. This information is required to be

on/with the shipping documents. If you require more information locate and call the emergency response telephone number listed on the shipping paper. All hazardous material shipping papers must include an emergency response telephone number which is monitored at all times.

When the emergency response information and the shipping paper are unavailable, **or** the emergency response telephone number has not been listed or does not work, the following sources can be contacted for emergency assistance.

Emergency response phone services

For emergency assistance at incidents involving hazardous materials, four agencies are listed in the Emergency Response Guidebook. The agencies all requested to be listed as providers of emergency response information and agreed to provide emergency response information to all callers. Each provides advice 24-hours a day, 7 days a week, for those requesting assistance at the scene of an incident. The four agencies are:

- CHEMTREC (1-800-424-9300)
- CHEM-TEL, INC. (1-800-255-3924)
- INFOTRAC (1-800-535-5053)
- 3E COMPANY (1-800-451-8346)

Upon receipt of a call describing the nature of the incident, the agency contacted will provide immediate advice on handling the early stages of the incident. The agency will also contact the shipper or manufacturer of the material for more detailed information and request on-scene assistance when necessary. Fees may vary, depending on the agency, and the service provided. For more information, contact the various agencies.

National Response Center (NRC)

For emergency assistance at incidents involving the release of a reportable quantity of a hazardous substance contact the National Response Center (NRC). The NRC is operated by the U.S. Coast Guard. Federal law requires that anyone who releases into the environment a reportable quantity of a hazardous substance (including oil when water is, or may be affected) or a material identifie as a marine pollutant, must immediately notify the NRC. When in doubt, notify the NRC.

The NRC can be reached at (800) 424-8802 or in the District of Columbia at (202) 267-2675.

Department of Defense (DOD)

For emergency assistance at incidents involving materials being shipped by, for, or to the Department of Defense, call one of the following numbers:

For incidents involving explosives and ammunition call: (703) 697-0218.

For incidents involving hazardous materials other than explosives and ammunition call: (800) 851-8061.

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PREAMBLES

Preambles to Final Rules discuss point by point the various changes being made to the regulations by the docket. The user will gain a better understanding of the intent of the changes made to the Hazardous Materials Regulations by studying the “Preamble” to a given “Final Rule”.

The preambles from the following significan fina rules are included in this section.

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Reserved

DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

49 CFR Parts 171, 172, 173, 175, 176, 177, 178, 179 and 180

[Docket No. RSPA–2000–7702 (HM–215D)]

RIN 2137–AD41

Harmonization with the United Nations Recommendations,International Maritime Dangerous Goods Code, and International Civil Aviation Organization's Technical Instructions

AGENCY: Research and Special Programs Administration (RSPA), DOT.

ACTION: Final rule.

SUMMARY: This final rule amends the Hazardous Materials Regulations (HMR) to maintain alignment with international standards by incorporating various changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations and vessel stowage requirements. In addition, this final rule revises the requirements for intermediate bulk containers and UN portable tanks for alignment with international requirements. Because of recent changes to the International Maritime Dangerous Goods Code (IMDG Code), the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions), and the United Nations Recommendations on the Transport of Dangerous Goods (UN Recommendations), these revisions are necessary to facilitate the transport of hazardous materials in international commerce.

DATES: *Effective Date:* The effective date of these amendments is October 1, 2001.

Voluntary Compliance Date: With the exceptions of the ICAO Technical Instructions, 2001–2002 Edition and the International Atomic Energy Agency's (IAEA) Regulations for the Safe Transport of Radioactive Material, No. TS–R–1, which are authorized for use on July 1, 2001, RSPA is authorizing immediate voluntary compliance. However, persons voluntarily complying with these regulations should be aware that petitions for reconsideration may be received and as a result of RSPA's evaluation of those petitions, the amendments adopted in this final rule could be subject to further revision.

Delayed Compliance Date: Unless otherwise specified, compliance with the amendments adopted in this final rule is required beginning on October 1, 2002.

Incorporation by Reference Date: The incorporation by reference of publications listed in these amendments in § 171.7 has been approved by the Director of the Federal Register as of October 1, 2001.

FOR FURTHER INFORMATION CONTACT: Joan McIntyre, Office of Hazardous Materials Standards, telephone (202) 366–8553, or Bob Richard, Assistant International Standards Coordinator, telephone (202) 366–0656, Research and Special Programs Administration, U.S. Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590–0001.

SUPPLEMENTARY INFORMATION:

I. Background

On October 23, 2000, the Research and Special Programs Administration (RSPA) (hereafter, ''we'' and ''our'' means ''RSPA'') published a notice of proposed rulemaking (NPRM) (65 FR 63294) under Docket HM–215D. The NPRM proposed changing the Hazardous Materials Regulations (HMR), 49 CFR parts 171–180, based on the UN Recommendations, the IMDG Code and the ICAO Technical Instructions with respect to hazard communication, classification, and packaging requirements. The intended effect of the rule was to facilitate the international transportation of hazardous materials by ensuring a basic consistency between the HMR and international regulations, while at the same time ensuring the safe transportation of hazardous materials.

On February 1, 2001, we published a final rule under Docket HM–215D (66 FR 8644) authorizing the use of the updated editions of the IMDG Code, the UN Recommendations and the UN Recommendations Manual of Tests and Criteria as proposed in the October 23, 2000 NPRM. This final rule addresses all other proposals published in the NPRM.

The UN Recommendations are not regulations, but are recommendations issued by the UN Committee of Experts on the Transport of Dangerous Goods. These recommendations are amended and updated biennially by the UN Committee of Experts. They serve as the basis for national, regional, and international modal regulations (specifically, the IMDG Code, issued by the International Maritime Organization (IMO), and the ICAO Technical Instructions, issued by the ICAO Dangerous Goods Panel). In 49 CFR 171.12, the HMR authorize hazardous materials shipments prepared in accordance with the IMDG Code if all or part of the transportation is by vessel, subject to certain conditions and limitations. In § 171.11, subject to certain conditions and limitations, the HMR authorizes the offering, acceptance and transport of hazardous materials by aircraft, in conformance with the ICAO Technical Instructions, and by motor vehicle either before or after being transported by aircraft.

On December 21, 1990, we published a final rule based on the UN Recommendations (Docket HM–181; 55 FR 52402) which comprehensively revised the Hazardous Materials Regulations (HMR), 49 CFR parts 171 to 180, for harmonization with international standards. Since publication of the 1990 final rule, we have issued three additional international harmonization final rules, (Dockets HM–215A, 59 FR 67390; HM–215B, 62 FR 24690; and HM–215C, 64 FR 10742). The rules provided additional harmonization with international air and sea transportation requirements by more fully aligning the HMR with the corresponding biennial updates of the UN Recommendations, the IMDG Code and the ICAO Technical Instructions.

The continually increasing amount of hazardous materials transported in international commerce warrants the harmonization of domestic and international requirements to the greatest extent possible. According to the American Chemistry Council, exports of chemicals totaled almost $80 billion in the year 2000, while imports totaled nearly $74 billion. Harmonization serves to facilitate international transportation and at the same time ensures the safety of people, property and the environment.

While the intent of the harmonization rulemakings is to align the HMR with international standards, we review and consider each amendment on its own merit. Each amendment is considered on the basis of the overall impact on transportation safety and the economic implications associated with its adoption into the HMR. Our goal is to harmonize without sacrificing the current HMR level of safety and without imposing undue burdens on the regulated public.

In our efforts to continue the alignment of the HMR with international requirements, this final rule makes changes to the HMR based on the eleventh revised edition of the UN Recommendations, Amendment 30 to the IMDG Code, which became effective January 1, 2001; and, the 2001–2002 ICAO Technical Instructions

which becomes effective July 1, 2001. Petitions for rulemaking pertinent to harmonization with international standards and the facilitation of international transportation are also addressed in this final rule and serve as the basis of certain amendments. Other amendments are based on feedback from the regulated industry, other DOT modal administrations and our initiative. Included are a few editorial clarifications. Certain commenters raised nonregulatory issues, issues that are beyond the scope of this rulemaking or suggested revisions that are now impractical (such as correcting the spelling of an entry that we removed). Such comments will not be addressed. Unless otherwise stated, the revisions are for harmonization with international standards.

II. Overview of Changes in This Final Rule

(See specific section for discussion of comments.)

Amendments to the HMR in this final rule include:

—Incorporation by reference of the updated ICAO Technical Instructions and addition of incorporation by reference of five current standards which include an International Atomic Energy Agency (IAEA) safety standard, three International Organization for Standardization (ISO) standards and one American Society for Testing Materials (ASTM) standard.
—Amendments to the Hazardous Materials Table (HMT) which add, revise or remove certain proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, bulk packaging requirements, and passenger and cargo aircraft maximum quantity limitations. Proper shipping name amendments include replacing the word ''inhibited'' with ''stabilized.'' Entry removals include certain domestic entries for which corresponding UN entries are currently included in the HMT.
—Revision of vessel stowage category definitions and codes for Class 1 (explosive) materials.
—Revision of shipping paper requirements for sea transport.
—Addition, removal and revision of certain entries to the List of Marine Pollutants.
—Addition, removal and revision of special provisions, including removal of current T codes and IBC bulk provisions, and addition of UN portable tank codes and IBC special packing provisions consistent with those in the UN Recommendations.
—Removal of the requirement to distinguish between primary and subsidiary risk labels and placards.
—Addition and revision to the list of organic peroxides and the list of self-reactive substances.
—Revision of the requirements pertaining to the transportation of samples.
—Revision of intermediate bulk container (IBC) requirements including amendments to the IBC commodity sections in §§ 173.240, 173.241, 173.242, 173.243 and 173.247, and addition of UN IBC packing instructions and special IBC packing provisions in part 172.
—Incorporation of the design, construction and use requirements for UN portable tanks.
—Consolidation of current portable tank maintenance, approval and use requirements.
—Inclusion of flexible grandfather provisions for the continued use of IM 101, IM 102, DOT 51, DOT 57 and DOT 60 portable tanks.
—Removal of specifications for DOT 52 and 53 portable tanks and the provisions for their continued use.
—Incorporation of a provision for the use of the ''W'' mark for IBCs.
—Revision of minimum thickness requirements for metal IBCs.
—Revision of several explosive packing methods to allow a broader selection of authorized packagings.
—Revision of provisions for cigarette lighters and alcoholic beverages carried aboard aircraft.
—Revision of the segregation table for hazardous materials stowed on aircraft.
—Allowance of the display of only one placard when certain explosive compatibility groups are transported together.
—Revision of lithium battery requirements.

III. Summary of Regulatory Changes by Section

Part 171

Section 171.7. We are updating the incorporation by reference for the ICAO Technical Instructions, and adding an ASTM standard, the current edition of the IAEA safety standard and three ISO standards as specified below. Amendment 30 to the IMDG Code, the eleventh revised edition of the UN Recommendations and the third revised edition of the UN Recommendations Manual of Tests and Criteria were incorporated into the HMR in a final rule under Docket HM–215D published February 1, 2001 (66 FR 8644) with a voluntary compliance date authorized as of January 1, 2001. One commenter opposed incorporation by reference of ASTM's E–112–96 Standard for Test Methods for Determining Average Grain Size,'' and ISO's 1496–3 ''Series 1 freight containers—Specification and testing,'' 1996 edition; 4126–1 ''Safety valves-Part 1: General Requirements,'' 1991 edition, and 6892 ''Metallic materials—Tensile testing,'' 1984 edition. According to the commenter, the industry supports the use of voluntary consensus standards in commercial applications, however, because of the ''frequency of change'' and because industry does not adopt the standards verbatim, the commenter suggests that these standards be used as guidance. We disagree. The ''National Technology Transfer and Advancement Act of 1995'' directs agencies to use voluntary consensus standards. According to the Office of Management and Budget (OMB), Circular A–119, ''Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities,'' government agencies must use voluntary consensus standards wherever practical in the development of regulations. Agency adoption of industry standards promotes productivity and efficiency in government and industry, expands opportunities for international trade, conserves resources, improves health and safety and protects the environment. Furthermore, requirements in the industry consensus standards are not required to be applied on a mandatory basis unless specifically referenced as such. When incorporating standards in the HMR, we typically specify the specific requirements in the standard that must be met. Requirements that are not mandated in adopted standards are rarely imposed on a mandatory basis in RSPA rulemaking initiatives. On this basis, we are incorporating the standards as proposed.

For international shipments of radioactive material, we are adopting the International Atomic Energy Agency (IAEA) safety standards, ''Regulations for the Safe Transport of Radioactive Material, No. TS–R–1'' with restrictions for its use for the domestic portion of the transport. Additionally, we are retaining Safety Series No. 6 with the same restrictions. As explained previously, TS–R–1 is the updated edition of the current Safety Series No. 6. Under this final rule, domestic shipments remain subject to the HMR requirements which are based on Safety Series No. 6. For domestic use, a proposal to adopt some or all of the TS–

R–1 standards will be addressed under a separate rulemaking, Docket HM–230, which will provide discussion and opportunity for comment.

As discussed in the final rule under Docket HM–215D published on February 1, 2001, we received comments supporting and opposing the incorporation by reference of TS–R–1 into the HMR. We received several comments from industry supporting the incorporation of TS–R–1 including requests for expedited publication of this final rule. Shippers will be required to comply with the TS–R–1 standards for export shipments and failure to comply would result in foreign authorities refusing to accept hazardous materials shipments prepared in accordance with the HMR. Several commenters stressed the importance of a timely compliance date to allow for a reasonable period to implement the TS–R–1 standards and the ICAO Technical Instructions, which both become effective on July 1, 2001. One commenter pointed out that not only does the time element greatly inhibit the preparation of packagings when nearing the July 1, 2001 effective date, but it will also have an impact on packagings already in transit. One commenter stated that failure to adopt TS–R–1 for international shipments will result in serious health treatment implications because radioisotope pharmaceutical products that are necessary for such treatment would be frustrated in transportation.

As discussed in the February 1, 2001 final rule, we received many comments from private citizens and local citizen groups opposing the incorporation of TS–R–1. Some of these commenters also opposed the adoption of the updated editions of the IMDG Code and the ICAO Technical Instructions because both incorporate TS–R–1. (The IMDG Code was adopted in the February 1, 2001 final rule.) Most of the commenters stated that TS–R–1 lowers the level of safety for the transportation of radioactive materials and thereby poses hazards to the public, however many of these commenters did not provide any technical basis for their opposition. The comments included claims that the TS–R–1 standards for Type B packagings are ''weakened.'' As discussed in the February 1, 2001 final rule, the commenters are incorrect. The TS–R–1 standards strengthen Type B packagings by adding immersion and crush testing to the previously required performance tests. Furthermore, the standards also add limits on the contents of Type B packaging when being transported by aircraft. Some commenters claimed that uranium hexafluoride packaging requirements are ''weakened'' in TS–R–1. These commenters are also incorrect. The criticality requirements for packages containing uranium hexafluoride did not change.

Many of the commenters stated that TS–R–1's revised definition of radioactive material lowers the level of safety by changing the 70Bq/g activity concentration threshold. The revised radioactive material definition will be addressed under Docket HM–230 and is not adopted in this final rule. We are adding a paragraph to §§ 171.11 and 171.12 to clarify that only the current definition of radioactive material applies. In addition, we are maintaining the current provisions in §§ 171.11 and 171.12, including the values for Type A packaging contents. Shippers using TS–R–1 under the ICAO Technical Instructions or the IMDG Code must conform to the provisions and restrictions as set forth in §§ 171.11 and 171.12, respectively.

Based on the above, the incorporation by reference materials adopted in this final rule are as follows:

—The ICAO Technical Instructions—2001–2002 edition.

—ASTM's ''E 112–96 Standard for Test Methods for Determining Average Grain Size'' is added to define ''fine grain steel'' as included in the proposed incorporation of the UN portable tank specifications in § 178.274.

—IAEA's current ''Regulations for the Safe Transport of Radioactive Material, No. TS–R–1,'' 1996 edition is added while retaining the previous edition entitled, ''Regulations for the Safe Transport of Radioactive Material, Safety Series No. 6.'' The TS–R–1 requirements were incorporated into the IMDG Code which became effective on a voluntary basis on January 1, 2001 and the ICAO Technical Instructions which will be effective July 1, 2001.

—Finally, we are adding three ISO standards to coincide with the incorporation of the UN portable tank requirements. The standards are as follows: ''ISO 1496–3 Series 1 freight containers—Specification and testing,'' 199 edition; ''ISO 4126–1 Safety valves–Part 1: General Requirements,'' 1991 edition; and, ''ISO 6892 Metallic materials—Tensile testing,'' 1984 edition.

In the NPRM, we proposed to add IMO'S current ''International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes on Board Ships' (INF Code). Because the IMO Maritime Safety Committee adopted the INF Code for incorporation into the 2000 edition of the IMDG Code, which we authorized under Docket HM–215D (66 FR 8644) on February 1, 2001, we are not adding the INF Code separately under § 171.7. Also see §§ 176.2 and 176.720.

Section 171.8. We are adding four new definitions to § 171.8. ''Large packaging'' is added to correspond with the addition of an approval provision that allows the use of large packagings which comply with requirements in the UN Recommendations (see § 178.801(i)). Large packagings are UN-marked bulk packagings which are very similar to IBCs, with the exception that they contain inner packagings. In the NPRM, we proposed to add a definition for ''Liner.'' After reconsideration, we believe that this definition is overly restrictive because it would preclude the use of liners such as those used in portable tanks, (for example, lead or rubber liner materials), bulk bins, IBCs and other types of packagings and the proposed definition would limit liners to bags and tubes. Plastic sheeting, rotationally molded rubber lining and other types of liners that are not bags or tubes would be excluded because the proposed definition limited liners to bags and tubes. On this basis, we are not incorporating the definition for ''Liner.'' ''Stabilized'' is added in conjunction with the proposal to replace the word ''inhibited'' with ''stabilized'' in proper shipping names (see § 172.101). Finally, ''UN portable tank'' is added in conjunction with the requirements for the design, construction and use of UN portable tanks (see §§ 178.274, 178.275, 178.276 and 178.277).

Section 171.10. To correspond with the incorporation of the UN portable tank specifications, we are adding the unit of measure for ''Newton'' into the Table of Conversion Factors in paragraph (c)(2).

Section 171.11. We are adding a new paragraph (d)(6)(vi) to limit the radioactive material definition to § 173.403. We are also adding a new paragraph (d)(17) to ensure conformance with the current approval provision in § 173.128(d) which requires an approval from the Associate Administrator for the offering for transportation or transport of organic peroxides that are not identified by technical name in the § 173.225(b) Organic Peroxide Table.

Section 171.12. In the NPRM, we proposed to revise paragraph(b)(3) by adding a limitation to the use of the IMDG Code, 2000 edition that became effective January 1, 2001. The limitation which regulates certain viscous flammable liquids that are excepted from the IMDG Code was incorporated

into the HMR on February 1, 2001 (66 FR 8646). One commenter stated that we should revise paragraph (b)(5) by removing the reference to Section 26 of the General Introduction to the IMDG Code because it will become obsolete January 1, 2002 (66 FR 8645) due to the extensive reformatting. We agree and are making the revision accordingly. We are also revising the paragraph to allow for the use of IBCs and UN portable tanks intended for liquids and solids that conform to the requirements of the IMDG Code. We are adding a new paragraph (b)(19) to ensure conformance with the current approval provision in § 173.128(d), which requires an approval from the Associate Administrator for the offering for transportation or transport of organic peroxides that are not identified by technical name in the § 173.225(b) Organic Peroxide Table. In addition, we are revising paragraph (d) to reflect the addition of the current edition of the IAEA ''Regulations for the Safe Transport of Radioactive Material, No. TS–R–1,'' 1996 edition. (See § 171.7 for discussion concerning the addition of the updated TS–R–1 standards) to ensure that radioactive material is defined in accordance with § 173.403.

Section 171.12a. We are adding a new paragraph (b)(18) to ensure conformance with the current approval provision in § 173.128(d) which requires an approval from the Associate Administrator for the offering for transportation or transport of organic peroxides that are not identified by technical name in the § 173.225(b) Organic Peroxide Table.

Section 171.14. We are revising paragraphs (d) and (d)(1) to authorize a delayed implementation date for the amendments adopted in the HM–215D final rule. The effective date of this final rule is October 1, 2001. However, we are authorizing immediate voluntary compliance. This authorization will allow shippers to prepare their international shipments in accordance with the new ICAO Technical Instructions, the IMDG Code and the HMR provisions. We also are authorizing a delayed mandatory compliance date of October 1, 2002 which is comparable to the transition provision provided in the final rule under Docket HM–215C. The delayed mandatory compliance date will offer sufficient time to implement the new provisions and deplete current stocks of shipping papers, labels, placards and packagings affected by the new requirements.

We are revising paragraph (d)(2) to permit intermixing of old and new (HM–215D) hazard communication requirements until October 1, 2002.

We are adding a new paragraph (d)(4) to allow the use of the T code special provisions (assigned to certain hazardous materials in Column (7) of the HMT) in effect on December 31, 2000 until January 1, 2010 for hazardous materials offered for transportation in IM, DOT Specification 51 and IMO portable tanks. This amendment is consistent with the IMDG Code grandfather provisions for portable tank requirements and will minimize any undue regulatory burden.

We are adding a new paragraph (d)(5) to allow continued display of proper shipping names with the word ''inhibited'' on packagings until October 1, 2005. (See § 172.101, HMT for further discussion.)

Part 172

Section 172.101. Paragraph (b)(1) is being revised for clarification of the use of the plus (+) sign. (See preamble discussion later in this section under the Hazardous Materials Table (HMT). We are revising paragraph (c)(11) for materials transported as samples which are assigned a tentative proper shipping name, hazard class, identification number and packing group. We are adding provisions based on the eleventh revised edition of the UN Recommendations to include requiring the word ''SAMPLE'' to appear in the proper shipping name, requiring a combination packaging, limiting the packaging size to 2.5 kg and allowing an exception from including the technical name when the constituents are not known. We also are adding a new paragraph (c)(16) to allow for the inclusion of the qualifying words ''liquid,'' ''solid'' or ''molten,'' as applicable, to a proper shipping name.

We received several comments concerning our proposal to revise hazardous materials transported as samples. Some commenters stated that prohibiting samples from being packed together with other hazardous materials would be overly restrictive and impose an undue burden. Commenters presented examples to demonstrate their argument, including one scenario in which a hazardous material is transported on dry ice. Our intention for revising this paragraph is to prevent the dangerous mixing of materials as prohibited in § 173.24 and to prevent the production of a mixture that would result in violation of § 173.21. Because the HMR requires samples to meet the requirements in §§ 173.21, 173.24, 173.24a and 173.24b, we agree that it is not necessary to prohibit samples from being shipped in the same packaging with other hazardous materials and are revising the paragraph accordingly. We are also removing proposed paragraph (c)(11)(i) in response to commenters' objections to the proposal prohibiting an explosive, infectious substance or radioactive material from being shipped as a sample. Provisions for transporting samples of such materials are currently authorized in the HMR and we agree that incorporation of the proposed paragraph (c)(11)(i) would be contrary to the current provisions. It was not our intention to remove the authorization to transport these materials as samples. As a result of these changes, certain proposed paragraphs are renumbered.

One commenter requested that the word ''SAMPLE'' be allowed to be shown on the shipping paper in association with the basic description. That is our intent, and although we proposed to require the word ''SAMPLE'' to appear in association with the basic description in the NPRM's preamble, the regulatory text wording required the ''SAMPLE'' to be shown before the basic description. The commenter is correct and we are revising the regulatory text accordingly.

One commenter requested that we change the term ''hazardous waste'' to ''waste'' because in accordance with § 171.8 the term ''hazardous waste'' applies only to those materials subject to the EPA manifest requirements under 40 CFR part 262. The commenter is concerned that generators of waste not subject to the EPA manifest requirements would be restricted from transporting their materials as samples. The commenter is incorrect by misapplying the use of the term ''generators of waste'' and ''hazardous waste.'' Under the CFR, the term ''hazardous waste'' does not apply to hazardous materials that are not subject to the EPA manifest requirements. Such materials are considered ''a sample of material'' in the context of paragraph (c)(11) and are not considered ''waste'' under the 49 CFR.

Finally, based on comments recommending various revisions to clarify the intent of the paragraph (c)(11), we made certain editorial amendments, including clarifying that technical descriptions do not apply when the primary constituents for which the tentative classification is based are not known.

In paragraph (k) for vessel stowage requirements in Column (10) of the HMT, we are adding new paragraphs (k)(6) through (k)(20) to include the IMDG Code vessel stowage category definitions for Class 1 (explosive) materials. This action is consistent with the new stowage categories and terminology contained in Amendment 30 of the IMDG Code. (Also see

preamble discussion under ''The Hazardous Materials Table'' and § 176.63.)

The Hazardous Materials Table (HMT). Amendments to the HMT include the following:

—Several commenters noted minor editorial errors in the HMT and we made the appropriate changes to correct these entries.

—For the entries, ''Other regulated substances, liquid, n.o.s.'' and ''Other regulated substances, solid, n.o.s.,'' we are adding the letter ''G'' to Column (1). The letter ''G,'' which denotes the n.o.s. and generic proper shipping names which are required to be supplemented with the technical names of the hazardous material (in parentheses and in association with the basic description), was inadvertently omitted in Docket HM–215C (64 FR 10742).

One commenter requested that we allow marine pollutants to alternatively be described using the proper shipping names ''Other regulated substances, liquid, n.o.s.'' or ''Other regulated substances, solid, n.o.s,'' as appropriate. We are not adopting this requested amendment because the shipping names ''Environmentally hazardous substances, liquid, n.o.s.'' and ''Environmentally hazardous substances, solid, n.o.s'' more accurately describe marine pollutants as posing an environmental risk and are, therefore, more appropriate proper shipping names as required by the HMR.

—We are adding the following new entries: ''Nitroglycerin mixture, desensitized, liquid, n.o.s. *with not more than 30% nitroglycerin by mass*,'' UN3357; ''Propellant, solid,'' UN0501; ''Refrigerating machines *containing flammable, non-toxic, liquefied gas*,'' UN3358; ''Rockets *with inert head*,'' UN0502; and ''1H–Tetrazole,'' UN0504.

—We are revising the entry, ''Dangerous Goods in Machinery *or* Dangerous Goods in Apparatus'' by replacing the identification number NA8001 with UN3363, designating a Class 9 assignment and revising Special Provision 136 (see § 172.102). These changes reflect the adoption of the entry by the UN Committee of Experts and amendments agreed to by the ICAO Dangerous Goods Panel. The entry was added to the HMT under Docket HM–215C as NA8001 and assigned Special Provision 136 to prescribe the appropriate hazard class assignment. As explained in HM–215C, the entry was adopted in the ICAO Technical Instructions to provide an exception from the UN packaging performance tests for equipment, machinery or apparatus containing small quantities of hazardous materials. For machinery or apparatus not specifically listed in the HMT, the entry provides a practical means of describing and transporting machinery or apparatus containing small quantities of hazardous materials. In HM–215C, we stated that upon the assignment of a UN identification number, we would revise the entry accordingly. This was accomplished in the eleventh revised edition of the UN Recommendations in which UN3363 was assigned and this entry was assigned to Class 9. The ICAO Technical Instructions were amended consistent with this UN decision. Therefore, based on the above discussion, we are revising the entry, ''Dangerous Goods in Machinery *or* Dangerous Goods in Apparatus'' by assigning it to Class 9, replacing the domestic identification number with an international identification number, and revising Special Provision 136.

—We are adding the entry ''Air bag inflators, *pyrotechnic or* Air bag modules, pyrotechnic *or* seat-belt pretensioners, *pyrotechnic*,'' UN0503 for air bags that are classified as Division 1.4G. We inadvertently omitted this entry in the NPRM. While we are not considering changing our policy or procedures for the classification of air bags as articles of Class 9, on the basis of the UN Manual of Tests and Criteria, 6c test, we believe that other competent authorities may assign a classification of 1.4G for some air bags. Incorporation of this entry is necessary to preclude the potential for frustrated shipments, the need to remark certain packagings or to change shipping papers for these air bags, when they are classified as 1.4G by other competent authorities and are being transported to or from the United States.

—We are revising all proper shipping names containing the word ''inhibited'' by replacing ''inhibited'' with the word ''stabilized.'' (Also, see the added definition for ''stabilized'' in § 171.8.) One commenter opposed the proposal to replace the word ''inhibited'' with ''stabilized'' and suggested that, instead, we clarify that monomers can be properly inhibited through means other than the addition of an inhibitor. The commenter stated that the words ''inhibited'' and ''stabilized'' have the same meaning for the purpose of transportation and expressed concern that we do not understand the distinction between the two words. The commenter also requested that we add several generic n.o.s. entries that include the word ''inhibited'' in the proper shipping names. We are not convinced of the merits of either request. The word ''stabilized'' introduces internationally accepted and standardized hazard communication wording and conveys that the addition of a stabilizing compound *or* other means of stabilization such as temperature control measures, have been implemented to prevent an unwanted reaction of a hazardous material. The word ''stabilized'' conveys a broader meaning of inhibiting uncontrolled reaction of a hazardous material (see § 171.8) by different methods. The continued use of the word ''inhibited'' would lead to a dual system of hazard communication that would be burdensome to shippers and carriers. In addition, the word ''stabilized'' is more adequately descriptive from the emergency responders' perspective. Adopting the word ''stabilized'' will also alleviate the necessity of issuing numerous exemptions for the variety of methods or combination of methods used to inhibit uncontrolled reactions without the use of inhibiting chemicals. Based on these reasons, we are adopting the amendment as proposed.

One commenter requested that we extend the proposed transition period for this amendment to provide sufficient relief from remarking all affected bulk packagings. The commenter stated that an extended transition period would allow the remarking to be accomplished during routine maintenance and periodic inspection cycles. In the NPRM, we proposed a transition period until October, 2002. We agree that a longer transition period for domestic transportation would help relieve any undue burden associated with this amendment without having a significant impact on safety. We are including a transitional provision in § 171.14 to allow the use of the word ''inhibited'' to be shown on packagings until October 1, 2005.

The allowance of additional means of stabilization and the removal of certain domestic entries from the HMT (see domestic entry removals later in this section) also addresses a petition for rulemaking (P–1304) requesting that we add a new domestic entry, ''Methyl methacrylate monomer, uninhibited,'' Class 3, NA1247, PG II to the HMT. As we stated, with respect to the request that we add generic n.o.s. entries that include the word ''inhibited,'' such an

action would also be contrary to the intent of global harmonization and would be beyond the scope of this rule. We are not adopting the request. Commenters having an interest in developing generic names for inclusion into the UN Recommendations should provide more specific information and examples of materials that require stabilization and are not covered by existing entries.

—We are revising the following proper shipping names: ''Lithium hypochlorite, dry *or* Lithium hypochlorite mixtures, dry,'' UN1471; ''Printing ink, flammable,'' UN1210; and ''Nitrocellulose membrane filters,'' UN3270.

—For the entry, ''Methacrylic acid, stabilized,'' UN2531, we are replacing Packing Group III with Packing Group II.

—We are removing various domestic entries that have ''NA'' identification number assignments. As discussed in the NPRM, after reviewing the domestic entries, we determined that the HMR includes ''UN'' identification numbers assigned to entries that are equally appropriate in a number of instances, and in these instances the NA numbers are no longer necessary. In the NPRM, the revision of ''Diesel fuel'' with the identification number NA1883 was a printing error which we are correcting in this final rule. ''Diesel fuel,'' NA1993 is retained and we are adding ''Diesel fuel, UN1202.'' This amendment will allow flexibility of choice in the use of proper shipping names for domestic transportation. In addition, for the convenience of the HMT users, we are separating the entry ''Gas oil *or* Diesel fuel *or* Heating oil, light'' by giving each name a separate line entry in appropriate alphabetical order. In response to comments requesting that we reconsider the proposed removal of ''Gasohol,'' we are not removing the entry from the HMT.

One commenter recommended that we provide T codes and IBC codes (see § 172.102, Special Provisions) for the entry ''Combustible liquid, n.o.s.,'' NA 1993. We agree with the commenter and are adding portable tank instruction T1, portable tank Special Provision TP1 and IBC code IB3. However, we did not assign IB6 to this entry, as requested by the commenter, because § 173.150(f) currently allows for the use of non-specification bulk packagings.

Included in the proposed removals are seven domestic pesticide proper shipping names identified by the pesticide industry as no longer being used. These entries are: ''Aldrin, *liquid*,'' NA2762; ''Aldrin, *solid*,'' NA2761; ''Dieldrin,'' NA2761; ''Methyl parathion *liquid*,'' NA3018; ''Methyl parathion *solid*, NA2783; ''Parathion,'' NA2783 and ''Tetraethyl pyrophosphate *solid*,'' NA3018.

—We are adding radioactive material (Class 7) entries consistent with new entries introduced in the UN Recommendations and IAEA's ''Regulations for the Safe Transport of Radioactive Material, No. TS–R–1.'' In addition, we are revising the current radioactive material entries in the HMR to indicate that these entries may be used for domestic shipments, but may be inappropriate for international transportation.

—For Class 1 (explosive) entries, we are revising Columns (10A) and (10B) to reflect the vessel stowage codes as they are presented in Amendment 30 to the IMDG Code. (See § 172.101(k) and § 176.63.)

—For the international entry ''Methanol,'' we proposed adding a plus sign (+) in Column (1) of the HMT to indicate that this entry is classified with a subsidiary hazard of Class 6.1 on the basis of human experience consistent with the UN Recommendations. One commenter objected to this proposal by stating that the action would unnecessarily restrict the shipment of dilute solutions of methanol. The commenter presented diluted methanol meeting the criteria for PG III as an example. In previous preamble discussions (see HM–215C Final Rule—**Federal Register:** March 5, 1999 (Volume 64, Number 43)) we indicated that a mixture or solution containing a hazardous material where the hazard is significantly different from that of the pure material should be evaluated on the basis of classification criteria. If such a mixture or solution does not meet the corresponding hazard class, a different proper shipping name may be used. Our position remains that when a mixture or solution of a material that is assigned a plus sign in column 1 of the HMT, no longer exhibits a hazard to humans, the material need not be described using a proper shipping name with a plus sign assignment. We recognize the need to clarify the intent of the plus sign in paragraph (b)(1). We are adding a sentence to paragraph (b)(1) to clarify the applicable requirements when the plus (+) sign is assigned to a proper shipping name.

—We are removing the entry ''Isobutyric anhydride,'' UN2530.

—For the entry ''Morpholine,'' UN2054, we are replacing Class 3 with Class 8, replacing Packing Group III with Packing Group I , and adding Class 3 as the subsidiary hazard.

—For ''Organic peroxide type F, solid, temperature controlled,'' (UN3120), we are removing the Packing Group III entry that was due to a printing error in 49 CFR. The PG II entry remains.

—For approximately 14 Zone A and B toxic-by-inhalation entries, we are revising the quantity limits for transport by air to ''forbidden.'' These revisions are consistent with other toxic-by-inhalation entries in the HMT and with the requirements of the ICAO Technical Instructions.

—For the entry ''Fire extinguishers *containing compressed or liquefied gas*'' we are adding Special Provision 110 to Column (7).

—We received a comment stating that our proposal to add Special Provisions 128 and B115 to the entry, ''Magnesium granules, coated, *particle size not less than 149 microns*,'' UN2950 (PG III only) was not reflected in the HMT and should also apply to ''Water-reactive solid, n.o.s,'' UN2813. After re-evaluation, we do not consider that it is appropriate to apply Special Provision 128 to ''Magnesium granules, coated,'' UN2950, because we are not convinced that these materials pose a Class 8 risk. As explained in the NPRM, this action is based on a petition for rulemaking (P–1338) that we received from the Aluminum Company of America (Alcoa). Special Provision 128 allows material meeting the Class 8 definition to be classed as a Division 4.3 with a Class 8 subsidiary hazard. Special Provision B115 authorizes the use of certain non-specification sift-proof bulk packagings when the material is loaded dry, precautions are taken to prevent liquid from reaching the hazardous materials and the bulk packagings are appropriately vented. However, UN2950 is assigned to bulk packaging § 173.240 which already allows non-specification bulk packagings and, therefore, we are not applying Special Provision 128 or B115 to UN2950 in this final rule. In response to the comment that Special Provisions 128 and B115 should apply to ''Water-reactive solid, n.o.s.'' UN2813, we note that exemption DOT E–11602 only applies to one specific material containing magnesium or magnesium nitrides that is described using a technical name in association with ''Water reactive solid, n.o.s.'' We do not agree that broad application of Special Provisions 128 and B115 to all

PG II or III water-reactive solids is appropriate or necessary.

—We received a comment stating that we did not include IBC and portable tank assignments for the PG II entry for ''Extracts, flavoring, liquid,'' UN1197. The oversight is corrected in this final rule.

—Several commenters noted minor editorial errors in the HMT and we made the changes as appropriate.

—For approximately 1,600 entries, we are revising Column (7) by harmonizing the HMR authorizations for IBCs with those contained in the UN Recommendations. As dicussed in the NPRM, in most cases the UN Recommendations provide for greater flexibility in the use of different types of IBCs. However, for certain hazardous materials, the incorporation of the UN IBC requirements further restricts the types of IBCs that were authorized prior to this final rule for certain hazardous materials. For example, some Packing Group II liquid hazardous materials of Class 3, Division 6.1 and Class 8 that were previously authorized to be transported in composite IBCs with flexible inner receptacles (such as 31HZ2) are no longer authorized. For the benefit of the reader and to facilitate a review of the proposed amendments, in the NPRM, we included a table identifying all of the affected hazardous materials and indicated the current bulk assignments and the proposed IBC assignments.

The IBC packaging requirements are included in a newly-created IBC Table under the Special Provisions section in § 172.102(c)(4). The table consists of IBC Codes (using the designations IB1–IB99) corresponding to the UN IBC packing instructions, and BB Codes corresponding to the UN IBC special packing provisions. We assigned the IBC packing instructions and the BB codes to specific hazardous materials in Column (7) of the § 172.101 HMT consistent with assignments in the UN Recommendations. In addition, we believe that consolidating the IBC requirements into one table makes it easier for readers to identify the authorized IBCs for specific hazardous materials. As a result of this amendment, we are revising the bulk special provisions in § 172.102(c)(3) to remove the previously authorized bulk codes relevant to the use of IBCs. We are also revising the current IBC packaging authorizations under §§ 173.240(d), 173.241(d), 173.242(d) and 173.243(d).

This revision also addresses a petition we received from the Rigid Intermediate Bulk Container Association (RIBCA) (P–1395) requesting that we amend the HMR to expand the use of IBCs consistent with new UN provisions. Specifically, the petitioner requested that we allow the use of rigid plastic IBCs and composite IBCs with a rigid plastic inner receptacle for certain liquids. We agree with RIBCA's request, however, as discussed in the NPRM, in the interest of harmonization, we believe it is more beneficial to adopt the UN Recommendations' IBC packing instructions in totality, and, as such, are amending the HMR accordingly.

One commenter stated that under the new IBC packing instructions, sodium cyanide and potassium cyanide would no longer be permitted in fiberboard or flexible IBCs. The commenter states that they are currently shipped this way according to B69. Although the UN Recommendations do not allow these types of IBCs for such materials, we are maintaining authorization for the use of fiberboard IBCs in domestic transportation. We will pursue the amendment to IB7 to allow the use of fiberboard (11G) IBCs through a proposal to the UN Transport Committee. However, we do not agree that flexible IBCs should be authorized for these hazardous materials.

The commenter also stated that large packagings should be authorized for sodium cyanide and potassium cyanide. Assignment of large packaging authorizations to specific substances is beyond the scope of this final rule. Currently, the UN Recommendations do not authorize large packagings for these substances. Large packagings are limited primarily to Packing Group III hazardous materials in the UN Recommendations. We plan to work through the UN Transport Subcommittee to address the commenter's concerns and depending on the outcome, we will address this issue in a future rulemaking.

Appendix B to § 172.101. In Appendix B to 172.101, List of Marine Pollutants, we are revising paragraph ''1'' by referencing § 171.4, which contains the applicability and exceptions for offering for transportation or transporting marine pollutants. We are revising paragraph ''2'' to reflect the IMDG Code's provision for the use of two Class 9 proper shipping names when a marine pollutant is not listed by name in the HMT and does not meet the definitions of Class 1 through 8. In addition, a number of materials are added, removed or amended in the List of Marine Pollutants. The entry ''EPTC (ISO)'' is removed. The entry was also the subject of a petition for rulemaking (P–1360) requesting removal of the entry based on its removal from the IMDG Code. Various other entries no longer identified as marine pollutants are also removed. Consistent with the proper shipping name revisions to replace the word ''inhibited'' with ''stabilized,'' we are making the change to five entries in the List of Marine Pollutants. All of the amendments to the List of Marine Pollutants are consistent with the marine pollutants provided in Amendment 30 of the IMDG Code. (Also see § 172.101, HMT for comment on use of proper shipping names for certain marine pollutants.)

One commenter stated that the proposal to remove the entry ''Dichlorobenzenes (meta, ortho and para)'' from Appendix B and replace it with the entry ''Dichlorobenzene (para)'' will result in an inappropriate listing of entries in Appendix B of the HMT for dichlorobenzene isomers. The commenter stated that the changes in Amendment 30 of the IMDG Code only delist ''1,2 Dichlorobenzene (ortho)'' as a marine pollutant and that the appropriate dichlorobenzene entry, in addition to existing ''1,3 Dichlorobenzene,'' and ''1,4 Dichlorobenzene,'' should be ''Dichlorobenzene (meta; para).'' We agree with the commenter and are revising the entry accordingly.

Section 172.102. We are revising, adding and removing special provisions as follows:

—Special Provision 43 is revised to include a provision which excepts ''Nitrocellulose membrane filters,'' UN3270 from the HMR requirements if shown not to meet the criteria for a Division 4.1 hazardous material, according to burn rate tests in Subsection 33.2.1. of the UN Manual of Tests and Criteria, Part III.

—Special Provision 110 is revised to more fully identify fire extinguishers that may be assigned to certain proper shipping names. The revision also provides for harmonization with the ICAO Technical Instructions. (We also are adding the special provision to the entry, ''Fire extinguishers *containing compressed or liquefied gas.*'' See § 172.101 HMT amendments.)

—Special Provision 128 is revised based on the amendment to assign it to ''Magnesium granules, coated, *particle size not less than 149 microns.*'' (See § 172.101 HMT changes.)

—Special Provision 136 is revised to reflect the changes adopted by the UN Committee of Experts and the ICAO Dangerous Goods Panel for the entry ''Dangerous Goods in Machinery *or* Dangerous Goods in Apparatus.'' (Also see § 172.101 HMT changes.)

We are revising the special provision by removing the text specific to the determination of the hazard class based on the UN Committee of Experts' decision that items under this entry should be assigned to Class 9.

—A new Special Provision 139 is added for two new entries, ''Radioactive material, transported under special arrangement, fissile'' and ''Radioactive material, transported under special arrangement *non-fissile or fissile-excepted*.'' The special provision requires international shipments using the two entries to be made under an IAEA Certificate of Competent Authority to be issued by the U.S. Competent Authority. Domestic shipments transported under the two entries would be allowed only under a DOT exemption.

—A new Special Provision 142 is assigned for the new entry ''Nitroglycerin mixture, desensitized, liquid, n.o.s.'' The special provision requires the material to be approved by the Associate Administrator.

—A new Special Provision 143 is added for the entry ''Life-saving appliances, not self-inflating, *containing dangerous goods as equipment*.'' The special provision clarifies which articles may be transported under this entry.

—A new Special Provision A53 is added for the entry ''Refrigerating machines,'' UN2857 and contains the exceptions from the HMR for certain refrigerating machines. The exceptions are currently in § 173.307.

—In conjunction with the amendment to revise and consolidate the IBC requirements (see § 172.101, Column (7) changes), we are adopting the following changes: revising the special provisions for bulk packagings in paragraph (c)(3) to exclude IBCs by revising Special Provisions B53 and B69 and removing Special Provisions B100, B101, B103 through B106 and B108 through B110, adding a new paragraph (c)(4) for special provisions specific to IBCs (IP Codes). IP codes are used to describe the IBC packing instructions. We redesignated the term ''BB'' Codes, as named in the NPRM, to ''IP'' Codes in this final rule in order to make it easier for the HMR user to locate the Special Provisions. By redesignating the ''BB'' Codes, the IB the IP Codes will be listed together in alphabetical order in § 172.102.

—The current T codes in paragraph (c)(7) are revised to reflect the incorporation of requirements for UN portable tanks and apply to hazardous materials of Classes 2 through 9. The revised T codes are consistent with those in the UN Recommendations and the IMDG Code and supersede the current HMR IM portable tank T codes. The T code provisions are required in addition to the requirements in part 178. The codes specify the types of authorized portable tanks according to the specific hazardous material transported in the portable tank. Portable tank assignments for Zone A and Zone B toxic-by-inhalation liquids remain consistent with their current assignments in the HMR. In instances where the UN requires a competent authority approval for transportation in portable tanks (such as when TP9 is assigned in the UN Recommendations), we have removed the approval provision. A transition period is provided for the continued use of the existing T codes for IM and DOT 51 portable tanks (see § 171.14(d)(5)).

One commenter stated that we did not provide for filling limits for portable tanks used to transport refrigerated liquefied gases. To correct this oversight, we are including filling limits that are similar to those applicable to cryogenic cargo tanks authorized under the HMR to transport refrigerated liquified gases. The filling limits will be contained in new Special Provision TP5 which was previously reserved. TP5 is assigned to all refrigerated liquified gases with a tank code T75 assignment.

A commenter stated that fittings were not defined for TP22 which states that lubricants for portable tank fittings must be oxygen compatible. We do not believe that it is necessary to define ''fittings'' other than to require that they must be oxygen compatible. Our basic intent is that no incompatible materials or lubricants be used on fittings such as fasteners, valves, gauges, pipe thread or other fittings that may come into contact with the oxygen and cause an unsafe condition in transport.

— We are removing proposed TP47 because it is not currently necessary. It is not assigned to any entries and the present requirements are addressed in the applicable packaging sections.

— In paragraph (c)(7)(iv), we are adding definitions for ''small,'' bare,'' ''sunshield'' and ''insulated'' as they apply to T50.

—A new Special Provision W7 is added for seven new Class 7 entries and assigned the vessel stowage category ''D,'' as defined in § 172.101(k)(4), to uranyl nitrate hexahydrate solution.

— A new Special Provision W8 is added for four new Class 7 entries and assigned the vessel stowage category ''D,'' as defined in § 172.101(k)(4), to pyrophoric thorium metal or pyrophoric uranium metal.

— Finally, a new Special Provision W9 is added for assignment to the entries, ''Calcium hypochlorite, dry or Calcium hypochlorite mixtures dry *with more than 39 percent available chlorine (8.8 percent available oxygen,''* UN1748; ''Calcium hypochlorite, hydrated *or* Calcium hypochlorite, hydrated mixtures *with not less than 5.5 percent but not more than 10 percent water,''* UN2880; and ''Calcium hypochlorite mixtures, dry, *with more than 10 percent but not more than 39 percent available chlorine.''* UN2208. This action aligns the packaging requirements for these entries with those contained in Amendment 30 to the IMDG Code by authorizing certain packagings only when approved by the Associate Administrator.

Section 172.202. We are revising paragraph (a)(4) based on a comment requesting that we eliminate the shipping paper requirement for inclusion of the packing group (PG II) for Class 1 (explosives) because the requirement conflicts with the UN Recommendations, the ICAO Technical Instructions and the IMDG Code, all of which do not require the inclusion of PG II on shipping papers. We agree with the commenter. The packing group does not indicate the degree of risk for explosives and does not aid emergency responders and we are providing an exception from this requirement. Based on the same reasoning, we are including in paragraph (a)(4) an exception from the packing group notation for organic peroxides and self-reactive materials.

Section 172.203. We are revising paragraphs(d)(11), (i) and (n). In paragraph (d)(11), we are allowing an exception from the requirement to add the appropriate group notation to the shipping description for a shipment of low specific activity material or surface contaminated objects provided the group notation is contained in the proper shipping name. Based on a commenter's request for clarification, we are making editorial revisions to this paragraph to improve the clarity of the additional description requirements applicable to low specific activity (LSA) materials and surface contaminated objects (SCO). We are changing the wording ''unless these symbols are'' to ''unless the group notation is,'' and adding the wording ''as described in the § 172.101 Hazardous Materials Table'' after the wording ''proper shipping name.''

In paragraph (i), we are adding two shipping paper description requirements for transportation by vessel. The first amendment is added as new paragraph (i)(5) and requires the flash point for a liquid hazardous material with a flash point of 61 °C or below to be included on shipping papers when transported by water.

One commenter objected to the proposed requirement that for materials having a flash point of 61 °C or less (closed cup c.c.), the flash point must be included on shipping papers. The commenter questioned the value of this requirement. We submit that knowledge of the flash point of a material is a requirement for vessel operators under the requirements of SOLAS Chapter II–2, Regulation 54. The SOLAS requirement imposes cargo hold, electrical, ventilation, fire protection and bilge pump requirements on hazard classes 3, 6.1 and 8, having a flash point of 61 °C or less. In order to ensure that vessel operators have this information, the IMDG Code requires a shipper to include the flash point of such materials on shipping papers. Although for most hazardous materials this information may be derived from the classification and packing group, for some hazardous materials this is not possible. To ensure that the flash point information is readily available, and to harmonize the HMR with the IMDG Code, we are adopting the requirement as proposed.

As discussed in the NPRM, we received a petition (P–1402) from the Vessel Operators Hazardous Materials Association (VOHMA) requesting that we add an additional shipping paper description requirement to include the minimum flash point in degrees Celsius for Class 3 (flammable) or combustible liquid hazardous materials. VOHMA stated that the amendment would help support compliance with the current stowage requirements in § 176.305(c) and the segregation requirements (Code 22 and 23, see § 176.84) as designated in Column (10B) of the § 172.101 Hazardous Materials Table. We agree with the petitioner's reasoning, however, for consistency with the IMDG Code, we are adding the requirement to specify the flash point when it is 61 °C or below for all such liquid hazardous materials whether or not the primary hazard is Class 3. The second amendment to the shipping paper description requirements for transportation by vessel is added as new paragraph (i)(6) and is based on comments from the USCG regarding further harmonization with the IMDG Code. The amendment requires subsidiary risks of a hazardous material that are not reflected in the proper shipping name to be included on shipping papers.

In paragraph (n), we are clarfiying that the shipping paper requirement for the word ''HOT'' to be placed immediately preceding the proper shipping names of hazardous materials that are transported as elevated temperature materials, is not required for proper shipping names containing the words ''Molten'' or ''Elevated temperature.''

Section 172.330. Consistent with the proper shipping name revisions that replace the word ''inhibited'' with ''stabilized'' (see § 172.101), we are revising three such proper shipping names in paragraph (a)(1)(ii).

Sections 172.402, 172.405 and 172.411. We received several comments concerning the proposal to remove the requirement to differentiate between primary and subsidiary labels. One commenter opposed the requirement with no elaboration. A second commenter stated that it would lower the level of safety. A third commenter opposed the adoption of the requirement stating that as an emergency responder, vital information necessary to respond to an incident would be lost. We disagree with this commenter. When a hazardous material has two or more hazards, each hazard must be considered in determining the appropriate response to an incident. The commenter also pointed out that the subsidiary risk is not required on shipping papers which would be another method for emergency responders to obtain the information. Under a separate rulemaking and consistent with the 12th edition of the UN Recommendations, we plan to propose a requirement to identify the subsidiary risks on shipping papers for all modes. In addition, for vessel only, we are adopting a requirement in this final rule for mandatory notation of subsidiary hazards on shipping papers, unless the subsidiary hazard is reflected in the proper shipping name. Consistent with the eleventh revised edition of the UN Recommendations, we are removing the requirement to differentiate between primary and subsidiary labels. Prior to this final rule, primary labels were required to display the hazard class or division number in the lower corner of the label, while subsidiary labels could not display these numbers. We believe the display of the hazard class and division on all labels will enhance safety and hazard communication. We are amending the requirement which provides for two label specifications (one for primary hazards and one for subsidiary hazards) by removing the subsidiary hazard label specification. This change also provides relief by eliminating the need for shippers to stock two sets of labels.

Another commenter stated that the proposed 5 year transition period for continued use of subsidiary risk label requirements in effect prior to this final rule, is too lengthy and could cause problems in domestic transportation for multimodal shipments. The commenter stated that the proposed transition period is not necessary because the ICAO Technical Instructions and the IMDG Code have much shorter transition periods in place, and that it seems unlikely that shippers would stock 5 year supplies of subsidiary risk labels. Based on feedback from industry, we believe that a 5 year transition period is warranted to allow sufficient time for filled packagings that are pre-labeled to complete their cycle out of transportation. We are not convinced that the 5 year transition period will cause problems in domestic transportation. Also, based on feedback from industry, we maintain that many shippers stock 5 year supplies of subsidiary risk labels. Therefore, in order to provide a reasonable transition period, we are allowing labels meeting the label specifications in place prior to this final rule to continue to be displayed until October 1, 2005, at which time labels used to convey both primary and subsidiary hazards must display the appropriate hazard class or division number at the bottom of the label. (See § 171.14 for transition provisions.) The same amendment also applies to placards (see § 172.519).

Section 172.502. In paragraph (b), we are correcting an error that was published in the February 1, 2001 final rule under Docket HM–215D. Based on a request from the **Federal Register**, we added a reference to ''see § 171.7.'' During the typesetting process, the ICAO Technical Instructions were mistakenly added and the TDG Regulations were mistakenly omitted. We are correcting this error by removing the ICAO Technical Instructions and reinstating the TDG Regulations.

Section 172.504. Based on comments and our own initiative, we are revising paragraph (g) by allowing the display of only one placard bearing one compatibility letter when certain Class 1 materials (explosives) of different compatibility groups are transported together in a single transport vehicle or container. This amendment is consistent with the mixed packaging provisions in § 173.61.

Section 172.519. Consistent with the amendment to eliminate the distinction between primary and subsidiary labels, we are revising paragraph (b)(4) to eliminate the requirement to distinguish

between primary and subsidiary placards. In addition, we are incorporating a new paragraph (b)(4)(i) to permit subsidiary placards meeting the current placarding specifications (such as placards without the hazard class or division number displayed in the lower corner of the placard) to continue to be displayed in domestic transportation provided they were permanently affixed before October 1, 2001. Non-permanently affixed subsidiary placards meeting the current placarding specifications are allowed to be displayed until October 1, 2005. (See § 171.14 for transition provisions.)

Part 173

Section 173.2a. Consistent with the eleventh revised edition of the UN Recommendations, in the paragraph (b) Precedence of Hazard Table, we are revising Footnote 2 to exclude liquid and solid desensitized explosives. In addition, we are adding the revised Footnote 2 to Class 3, PG I, II and III in the paragraph (b) Precedence of Hazard Table.

Section 173.4. Based on a request for clarification, we are revising paragraph (a) to clarify that the small quantity exceptions apply to packagings containing articles, as well as inner receptacles.

Section 173.24b. We are adding a new paragraph (e) to address acceptance of foreign manufactured UN portable tanks that conform to the applicable provisions in the UN Recommendations on the Transport of Dangerous Goods and are manufactured in countries that provide reciprocal treatment for UN portable tanks manufactured in the United States.

Section 173.29. One commenter requested that two petitions for rulemaking be addressed in this final rule. The petitions request that IBCs meeting the Environmental Protection Agency's empty container rule in 40 CFR 261.7 be allowed to be transported without vehicle placarding and shipping papers. We are not addressing this issue under HM–215D because it is beyond the scope of this rulemaking.

Section 173.31. Consistent with the proper shipping name revisions that replace the word ''inhibited'' with ''stabilized'' (see § 172.101), we are revising one such proper shipping name in § 173.31(b)(2)(ii).

Section 173.32. One commenter stated that the consolidation of §§ 173.32, 173.32b and 173.32c would impose requirements for DOT Specification 57 portable tanks that previously did not apply. The commenter provided specific recommendations for ensuring that new requirements for the maintenance and continued use of DOT Specification 57 portable tanks are not introduced. We did not intend to impose new requirements for DOT Specification 57 portable tanks. We considered the recommendations of the commenter and revised § 173.32(d), (f) and (h) to address these recommendations.

One commenter suggested that we incorporate certain editorial changes in § 173.32 and part 180, subpart G, to clarify that not all portable tanks have a maximum allowable working pressure (MAWP) and that some requirements do not apply to all portable tanks, such as DOT Specification 56 and 57 portable tanks. The commenter stated that DOT Specification 57 portable tanks, for example, have a design pressure, but not a MAWP. The commenter also noted that when we consolidated the repair, inspection, test and maintenance requirements for portable tanks in the NPRM, we applied requirements to DOT Specification portable tanks that currently are not applicable under the HMR. We agree with the commenter's suggestions and are incorporating the suggested editorial corrections.

One commenter stated that one of its members maintains and operates a large fleet of ICC Specification portable tanks and they requested that we maintain the current grandfather provisions for these portable tanks. As stated in the NPRM, our intent with removing the provisions was based on whether these portable tanks were being used. With receipt of this comment, we are retaining the provisions currently in 173.32(b) and (c) of the HMR by incorporating them into § 173.32(c)(4) and (c)(5) in this final rule.

The commenter also stated that DOT Specification 60 and marine portable tanks were not addressed in the NPRM and requested that these portable tanks be authorized for continued use. We did not propose any changes in the NPRM that would prevent continued use of these portable tanks.

Another commenter expressed concern regarding our proposal to allow UN portable tanks to be designed and constructed to pressure vessel design codes other than the ASME Code. The commenter asked which codes would be acceptable and expressed concern that we would allow codes that are ''less stringent'' than the ASME Code. In response to this comment, we wish to advise the commenter that codes other than ASME will only be authorized if approved by the Associate Administrator for Hazardous Materials Safety, and only for UN portable tanks intended for the transport of liquid and solid hazardous materials. No approval provision was proposed for use of alternative design codes for portable tanks intended for the transport of liquefied gases. Because alternative codes are only allowed if approved by the Associate Administrator, applications for use of other design codes will be reviewed on a case by case basis. It is not our intention to allow the use of design codes that will not provide an equivalent level of safety as afforded in the ASME Code. We did not include a list of potential alternative codes because we have not considered which codes we will accept and because other factors, in addition to the design code, will be considered in each case.

One commenter stated that it is unclear whether the grandfather provision for DOT Specification 56 and 57 portable tanks manufactured after October 1, 1996 provides for such portable tanks to continue in service. We note that DOT Specification 56 and 57 portable tanks were not authorized to be manufactured after October 1, 1996. On October 1, 1996, the UN IBC requirements were introduced which replaced DOT Specification 56 and 57 portable tanks.

Because paragraphs (c)(3) and (g) concerning pressure relief valves for DOT specification portable tanks are duplicative, we are removing paragraph (g). With this action the paragraphs following the removed paragraph (g) are renumbered.

As proposed in the NPRM, we are revising § 173.32 to provide requirements for all portable tanks by consolidating the requirements for the use of IM portable tanks currently in § 173.32c into a single section and moving them to part 180, subpart G, with the qualification and maintenance requirements for IBCs, cargo tanks and tank cars. We are also including a grandfather clause in § 173.32 to allow IM 101, 102 and DOT 51 portable tanks to continue to be constructed in accordance with the HMR until January 1, 2003. IM 101, 102 and DOT 51 portable tanks which are certified and approved prior to this date are authorized for continued use provided they meet the applicable periodic inspection and test requirements in part 180, subpart G. These requirements were previously in § 173.32b. On January 1, 2003, all newly manufactured portable tanks will be required to conform to the requirements for the design, construction and approval of UN portable tanks (see §§ 178.274, 178.275, 178.276 and 178.277). Finally, we are removing the provisions for the continued use of DOT Specification 52 and 53 portable tanks based on our view that these portable tanks are no longer

in use and the lack of comments to the contrary.

Section 173.32a. We are removing § 173.32a and moving its approval requirements for specification portable tanks to § 178.273. We believe that part 178 is a more appropriate location for these requirements and that the new section will prove to be more convenient for users of the HMR. We also are including similar requirements for the incorporation of requirements for UN portable tanks.

Section 173.32b. We are removing § 173.32b and relocating the test requirements to part 180, subpart G, as discussed in § 173.32.

Section 173.32c. We are removing § 173.32c. The requirements for the use of all specification portable tanks are now included in § 173.32, thereby precluding the need for § 173.32c.

Section 173.34. Consistent with the proper shipping name revisions that replace the word ''inhibited'' with ''stabilized'' (see § 172.101), we are revising two such proper shipping names in § 173.34(e)(13).

Section 173.61. Based on our own initiative, for Class 1 (explosives) mixed packaging requirements, we are revising paragraph (e)(3) to allow explosives of compatibility group S that are allowed to be packaged with explosives of all other compatibility groups, except A and L, to be treated as belonging to any of the packaged compatibility groups except S. In addition, we are adding a new paragraph (e)(8) to allow explosive articles in compatibility group G, except for fireworks and articles requiring special packaging, to be packaged with articles of compatibility groups C, D and E, and the combined package may be treated as belonging to compatibility group E. This revision corresponds with the previous allowance contained in § 177.848(g).

Section 173.62. Consistent with adding the entries ''Rockets *with inert head,*'' UN0502 and ''1H-Tetrazole,'' UN0504 to the § 172.101 Table, we are adding them to the paragraph (b) Explosives Table which specifies the Packing Instructions assigned to each explosive. In paragraph (c), we are revising the Explosives Packing Instructions Table to authorize additional types of outer packagings in the following packing instructions: 112(a), 112(b), 112(c), 113, 115, 116, 130, 131, 134, 135, 136, 138, 140, 141,142 and 144.

Section 173.150. We are revising paragraph (d) by clarifying that alcoholic beverages containing over 24% alcohol by volume are not excepted from regulation when transported by a passenger or crewmember on passenger-carrying aircraft except as provided in § 175.10(a)(17). (See preamble discussion under § 175.10.)

Section 173.162. We are revising paragraph (a)(1) by clarifying that the types of packagings specified in the paragraph are combination packagings and that the glass, earthenware or rigid plastic packagings are authorized as inner packagings only. In addition, for these packagings, we are increasing the net mass of 10 kg (22 pounds) for each packaging to15 kg (33 pounds). This is consistent with Packing Instruction 800 in the UN Recommendations.

Section 173.185. We are revising § 173.185 to include a definition for equivalent lithium content for lithium ion cells and batteries and to provide the applicable aggregate lithium quantities relevant to excepting lithium ion cells and batteries from the requirements of the HMR consistent with the eleventh edition of the UN Recommendations. The definition of lithium content was revised in this final rule to make it consistent with a minor editorial clarification adopted by the Committee of Experts in its report of the 21st session (see section 38.3.2.2 in the amendments to the UN Manual of Tests and Criteria, report number ST/SG/AC.10/27/Add.2). This clarification was included based on a comment that we received. We adopted this clarification in order to prevent possible confusion about the lithium-equivalent content of lithium-ion battery packs that are currently used in many portable devices. For the readers' information, we plan to issue an NPRM under a separate rulemaking initiative to address the 12th edition amendments to the UN Recommendations that require all lithium batteries, regardless of the lithium content, to be subject to the lithium battery tests in Section 38 of the UN Manual of Tests and Criteria. The lithium battery amendments and revised test methods are available in the report of the UN Committee of Experts and may be downloaded at *http://www.unece.org/trans/main/dgdb/dgcomm/ac10rep.html.*

Several commenters stated that we did not include the revised requirements applicable to large lithium batteries used for electric and hybrid vehicles and requested that we make the correction in the final rule. Although we discussed the amendment in the NPRM's preamble, the revised requirements were inadvertently omitted from the regulatory text. This error is corrected in this final rule.

Section 173.224. Consistent with the UN Recommendations, we are adding the entry ''2,2'-Azodi(isobutyronitrile) as a water-based paste'' to the Self-Reactive Substances Table for substances that are not subject to the approval provisions of § 173.124(a)(2)(iii), provided all applicable provisions in the table are met. Finally, we are revising paragraph (b)(4) and removing paragraph (d) to allow Type F self-reactive substances to be transported in portable tanks under conditions specified in § 173.225(e) (see preamble discussion under § 173.225).

Section 173.225. We are amending the paragraph (b) Organic Peroxide Table by making various changes, such as revising several technical names, packing method authorizations and control temperatures. These changes are consistent with the UN Recommendations. We are removing Notes ''7'' and ''10'' consistent with the adoption of UN IBC 520 and adding Note ''26'' to specify the available oxygen content limitation for certain new organic peroxide formulations. We are revising paragraph (e) to incorporate the requirements from the eleventh revised edition of the UN Recommendations relevant to the emergency venting devices for portable tanks and IBCs used for the transportation of organic peroxides and self-reactive substances. This responds to NTSB recommendation (I–92–2) that asked us to ''revise the requirements for pressure relief venting on DOT Specification 57 portable tanks used to transport dicumyl peroxides and other products with similar rapid decomposition characteristics to ensure that the pressure relief systems prevent overpressure rupture of tanks from a rapid product decomposition reaction.'' We are applying the recommended venting requirements to all portable tanks and IBCs, rather than just DOT Specification portable tanks. Additionally, the types of portable tanks authorized for type F organic peroxide and self-reactive substances are expanded to include UN portable tanks. We are adopting the requirements in Portable Tank Instruction T23 and IBC Special Provision, IBC 520.

A commenter brought to our attention that Note 26 as proposed would conflict with the § 173.21 restriction for ketone peroxides which limits oxygen content to 9% or less. We agree and are removing the proposed Note 26 text and renumbering the proposed Note 27 to Note 26. In addition, based on a comment, we are adding an organic peroxide formulation for 2,5 Dimethyl 2,5 di-2-ethylhex anoylperoxy hexane, UN3113. The entry was adopted in the UN Recommendations and inadvertently omitted in the NPRM.

We understand that the current Organic Peroxide Table includes a number of formulations that are no longer used. We encourage users of the Organic Peroxide Table to provide us with comments in this regard, as well as suggestions for improving the Organic Peroxide Table.

Sections 173.240, 173.241, 173.242 and 173.243. In each section's paragraph (c), we are removing Specification DOT 52 and 53 portable tanks as authorized packagings (see § 173.32) because we believe that these portable tanks are no longer used. In addition, we are authorizing UN portable tanks. In conjunction with the revision to the requirements for IBCs, for alignment with international standards, we are revising paragraph (d) which specifies authorized IBCs in §§ 173.240, 173.241, 173.242 and 173.243 to reflect the proposed incorporation of IBC packing instructions and IP codes (see § 172.101, Column (7)). Based on a comment that we received, we are not requiring temperature sensing devices or reclosing pressure relief devices for DOT Specification 57 portable tanks. We agree with the commenter that such portable tanks have limited use and are very similar to IBCs.

We also received a comment stating that § 173.240 should be amended to allow the use of non-specification flexible (''supersacks'') IBCs for hazardous materials such as ''Environmentally hazardous substances, solid, n.o.s.'' Specifically, the commenter requested that we authorize the use of non-specification ''supersacks'' in § 173.240. The commenter questioned the omission by asking why we do not authorize non-specification IBCs, yet we provide for the use of other non-specification bulk packagings. While it is our intent at this time to maintain authorization for use of non-specification portable tanks and bulk bins in § 173.240(c), we do not agree that non-specification IBCs should be authorized. The only non-specification bulk packagings authorized in § 173.240 are portable tanks and bulk bins which are rigid packagings of a higher integrity when compared to a 2,000 pound non-specification bag. Neither the current HMR nor the UN Recommendations authorize the use of non-specification IBCs for environmentally hazardous substances. We believe that authorization of the non-specification ''supersacks'' would be detrimental to safety and, therefore, we are not incorporating it into the HMR.

Section 173.247. In paragraph (c), we are removing Specification DOT 52 and 53 portable tanks as authorized packagings (see § 173.32).

Sections 173.301, 173.304, 173.314, 173.315 and 172.330. Consistent with the proper shipping name revisions that replace the word ''inhibited'' with ''stabilized'' (see § 172.101), we are revising all such proper shipping names in these sections.

Section 173.306. Consistent with Packing Instruction P201 in the UN Recommendations, we are amending the paragraph (a)(4)(iii) conditions for transporting flammable, non-pressurized gas samples by revising the inner packagings limit from 2.5 L (0.66 gallons) to 5 L (1.3 gallons).

Sections 173.314 and 173.315. Consistent with the proper shipping name revisions that replace the word ''inhibited'' with ''stabilized'' (see § 172.101), we are revising one such proper shipping name in § 173.314(c) and (g) and two such proper shipping names in § 173.315(a), (b) and (h).

Section 173.315. As proposed in the NPRM, we are revising paragraphs (a) and (i)(1)(iii) to incorporate provisions for the use of UN portable tanks for the transportation of liquefied compressed gases and the requirements for DOT Specification 51 portable tanks. In paragraph (a), we are incorporating a reference to new tank instruction T50 (see UN T Codes under § 172.102) for the transportation of liquefied compressed gases in UN portable tanks. In paragraph (i)(1)(iii), we are including the pressure relief device requirements applicable to UN portable tanks.

We received a comment questioning the intent in paragraph (a)(1)(iii) concerning the insulation requirements. The commenter was concerned that the paragraph prevents the use of mylar, other low melting films and aluminum for jacket materials. We note that the paragraph does not prohibit the use of jackets constructed of materials other than steel, except in the case when the portable tank manufacturer is attempting to lower the required relieving capacity of the relief devices by taking into account the thermal protection afforded by the insulation. The UN portable tank requirements intentionally restrict the jacketing material to steel when using the insulation as a means for reducing the required relieving capacity of the pressure relief devices, because jacket materials with lower melting temperatures, such as aluminum, would not provide adequate fire damage protection for the inner vessel, or for the vacuum insulation in the case of a vacuum insulated tank to justify allowing a lower overall relieving capacity for the pressure relief system. We agree with the UN reasoning for limiting jacket material to steel, and, therefore, we are adopting the paragraph as proposed.

Section 173.320. For transportation by air for cryogenic liquids exceptions, we are making an editorial clarification in paragraph (c) to refer readers to the specific cites in the ICAO Technical Instructions rather than stating ''see § 171.11 of this subchapter.''

Part 175

Section 175.10. For consistency with the ICAO Technical Instructions, we are revising paragraph (a)(10) to clarify that lighters containing ''unabsorbed liquid fuel'' are prohibited on one's person or in checked or carry-on baggage. We are revising exclusions for alcoholic beverages as carry-on and checked baggage to impose a per passenger quantity limit and to restrict the exceptions to alcoholic beverages in retail packagings containing not more than 70% alcohol. We are revising paragraph (a)(16) to exclude alcoholic beverages. Also, we are adding new paragraph (a)(17) to specify that alcoholic beverages containing more than 24% and not more than 70% alcohol by volume, when carried by passengers or crew in checked or carry-on baggage, are not subject to the HMR if in retail packagings not exceeding 5 liters (1.3 gallons) with a total net quantity per person of 5 liters (1.3 gallons). These changes are consistent with the ICAO Technical Instructions.

Section 175.33. For harmonization with the ICAO Technical Instructions, we are revising paragraph (a) introductory text to add a requirement that the written pilot notification must be accurate and legible.

Section 175.78. We are revising this section to update and align segregation requirements with recent changes adopted in the ICAO Technical Instructions which were based on a UN decision to remove the distinction between primary and subsidiary risk labels. Separate rows and columns are provided for Divisions 5.1 and 5.2. We are adding a new provision to clarify that packages with multiple risks do not need to be segregated from other packages bearing the same UN number. The ICAO Technical Instructions currently require segregation of Divisions 5.1 and 4.3 hazardous materials and we have revised the entry to reflect the change.

Section 175.85. Consistent with a new provision adopted in the ICAO Technical Instructions, we are revising paragraph (a) to authorize use of main deck Class C cargo compartments for the transport of hazardous materials. Prior

to this final rule, hazardous materials were allowed to be carried in a main deck cargo compartment of a passenger aircraft provided the compartment was inaccessible to passengers and it met certification requirements for a Class B cargo compartment. (Class C cargo compartments differ from Class B cargo compartments in that Class C compartments are required to have a built-in fire extinguishing system, in addition to smoke or fire detection systems.)

Part 176

Section 176.2. In conjunction with incorporating a requirement for vessel cargo to be in compliance with the INF Code (see § 176.720), we are adding a definition for ''INF cargo'' under the § 176.2 definitions.

Section 176.63. For the stowage of Class 1 (explosive) materials on board a vessel, we are adding a stowage location definition for ''closed cargo transport unit.'' This addition coincides with the addition of the vessel stowage category definitions contained in Amendment 30 to the IMDG Code. (See § 172.101(k).)

Section 176.84. Consistent with the IMDG Code we are revising paragraph (b) Table of provisions and paragraph (c)(2) stowage provisions. In the paragraph (b) Table of provisions, we are adding two new stowage provisions for assignment to the entries: ''Calcium hypochlorite, dry *or* Calcium hypochlorite mixtures dry with more than 39 percent available chlorine (8.8 percent available oxygen),'' ''Calcium hypochlorite, hydrated *or* Calcium hypochlorite, hydrated mixtures, *with not less than 5.5 percent but not more than 10 percent water*,'' and ''Calcium hypochlorite mixtures, dry *with more than 10 percent but not more than 39 percent available chlorine*.'' In the paragraph (c)(2), we are revising the list of notes for the stowage of Class 1 (explosive) material provisions.

Section 176.128. We are making an editorial change in § 176.128(c) by correcting an identification number.

Section 176.136. We are making an editorial change in § 176.136 by removing the word ''portable.''

Section 176.142. Based on a comment from the National Cargo Bureau, Inc., in § 176.142, paragraph (a), we are revising the list of hazardous materials that may not be transported in a vessel carrying Class 1 (explosive) materials to reflect the most current proper shipping names and add one extremely flammable material, ''Methyl phosphonous dichloride, *pyrophoric liquid*,'' NA2845.

Section 176.720. We are adding a new section to require a vessel carrying INF cargo in international transportation to comply with the ''International Code for the Safe Carriage of Packaged Irradiated Nuclear Fuel, Plutonium and High-Level Radioactive Wastes on Board Ships,'' (INF Code, 2000, English edition). The INF Code was adopted by the International Maritime Safety Committee and became effective January 1, 2001 in the IMDG Code.

Part 177

Section 177.848. In paragraph (g)(3)(vi), we inadvertently added the terms ''special stowage'' and ''stowed'' from the corresponding vessel section of the HMR (§ 174.81) under HM–215C (64 FR 10742). We are correcting the wording by removing ''special stowage,'' which is not applicable to this section, and replacing ''stowed'' with ''loaded, transported and stored.'' We received a joint petition from the American Trucking Associations (ATA) and the Institute of Makers of Explosives (IME) (P–1396) requesting additional clarification of this paragraph. Prior to this rule, the paragraph read:

''(vi) ''6'' means explosive articles in compatibility group G, other than fireworks and those requiring special stowage, may be stowed with other explosive articles of compatibility groups C, D and E, provided no explosive substances (for example, those not contained in articles) are carried in the same vehicle.''

In this paragraph and the corresponding paragraph in § 174.81, the petitioners request that the words ''other explosives'' be inserted before the wording ''explosive substances.'' The petitioners are incorrect in their interpretation of the wording of this paragraph. Explosive *articles* in compatibility group G may be stowed with certain other explosive *articles* (C, D and E compatibility groups), provided no explosive *substances* that are not contined within articles are carried in the same vehicle. We point out that there is a distinction between the words ''articles'' and ''substances.'' To take advantage of this paragraph, explosive substances that are not contained in articles may not be carried on the vehicle. We are revising the paragraph to clarify that substances are prohibited when not contained in articles.

Part 178

Section 178.273. We are adding a new section by moving the current requirements for the approval of portable tanks from § 173.32a to § 178.273. This new section will include approval provisions for all portable tanks, including ''UN portable tanks.'' These current approval provisions will precede the requirements for UN portable tanks (§§ 178.274 through 178.277). Approval agencies that have an interest in approving UN portable tanks must send a request to DHM–32, Office of Hazardous Materials Approvals, in accordance with the requirements in part 107, subpart E of this subchapter.

Sections 178.274, 178.275, 178.276 and 178.277. Based on the eleventh revised edition of the UN Recommendations, we are incorporating four new sections into the HMR for the UN portable tank requirements. This action is based on our own initiative and a petition for rulemaking (P–1373) and is consistent with our international harmonization objectives. The requirements apply to the design and construction of portable tanks. The IMO Dangerous Goods, Solid Cargoes and Containers (DSC) Sub-Committee incorporated the new harmonized UN multimodal portable tank requirements into the reformatted IMDG Code, Amendment 30. The reformatted IMDG Code became effective on January 1, 2001. The IMDG Code also includes a provision to allow for the continued use of portable tanks designed and constructed under the current requirements (those in Amendment 29 or previous amendments to the IMDG Code as applicable, depending on the date of construction).

The IMO allows construction under the new requirements on January 1, 2001, on a voluntary compliance basis, with a mandatory compliance date of January 1, 2003. On January 1, 2003, all new portable tanks will be required to be manufactured in accordance with the new requirements. For purposes of harmonization, we are incorporating the corresponding design, construction and use requirements for UN portable tanks in the HMR. In addition, in § 173.32 we are providing for the continued use of IM 101, 102 and DOT Specification 51 portable tanks, which is consistent with the provisions adopted in the IMDG Code.

The design and construction requirements for UN portable tanks do not differ significantly from the previous IM 101 and 102 portable tanks and the DOT Specification 51 requirements. In general, the UN requirements are less restrictive. For example, 6 mm (0.2 inches) minimum thickness is required for most portable tanks, as opposed to the current minimum thickness of 6.35 mm (0.3 inches) for IM 101 and 102 portable tanks. As discussed in the NPRM, while the majority of the changes involve relaxations of the regulatory requirements, there will be implications for portable tank manufacturers,

shippers and operators who transport hazardous materials in portable tanks. For example, we are requiring UN portable tanks used for the transportation of liquefied compressed gases to be approved by a DOT-designated approval agency, and we are requiring all UN portable tanks to meet a 4 g impact test. In addition to portable tanks for liquids and liquefied compressed gases, we are incorporating requirements for portable tanks that are used to transport refrigerated liquified gases (cryogenic liquids). Previous to this final rule, requirements for portable tanks used for refrigerated liquefied gases were not specified in the HMR, and we authorized their use only under DOT exemptions. The differences between UN portable tanks and the previous portable tank requirements include, but are not limited to the following:

—The new definition for portable tank includes multimodal tanks with a capacity of more than 450 liters (118.9 gallons).

—The new design temperature range is defined as –40 °C to 50 °C (–40 °F to 122.0 °F). This final rule includes the requirement that design temperatures must be considered for portable tanks subjected to severe climatic conditions. Previous to this final rule, regulations specified a range of –20 °C to 50 °C (–4.0 °F to 122.0 °F).

—The new UN leakage test for portable tanks intended for the transport of liquids specifies a test pressure not less than 25% of Maximum Allowable Working Pressure (MAWP). The previous HMR requirements specified an internal pressure equivalent to MAWP, but not less than 0.2 bar (20.0 kPa) for liquids.

—The new test requires that the design and construction of portable tanks must take into account the effects of fatigue during normal conditions of transport. Previously, this was not required in the HMR.

—The new requirements specify an absolute minimum thickness of 3 mm (0.1 inches), regardless of the material used and regardless of whether additional protection is provided.

—Under the new requirements, a rail impact test of 4 g is required for all portable tanks meeting the definition of ''Container'' in the International Convention for Safe Containers (CSC).

—The new requirements specify that the test pressure be 1.3 times the design pressure for portable tanks intended for the transport of liquefied gases. Previously, under the HMR, DOT 51 portable tanks used for the transportation of liquefied gases were required to have a test pressure of 1.5 times the design pressure; however, this is based on the vapor pressure of the hazardous material at 115 °F (46.1 °C), whereas the UN calculates the vapor pressure at 65 °C (149 °F). The differences between 1.5 at 46 °C and 1.3 at 65 °C, therefore, would not be significant. (Although one commenter stated that they disagreed with this statement, our view is explained further in the preamble discussion under § 178.274.)

—The new requirements include a figure for thermal conductance for the thermal insulation systems of shells intended for the transport of liquefied compressed gases.

—The new requirements include a definition for ''Holding time'' relevant to portable tanks used for the transportation of refrigerated liquefied gases. This is consistent with current HMR requirements in § 178.338–9 for cargo tanks.

—The new requirements specify the effectiveness of the insulation system (heat influx in watts) based on a test using the portable tank.

—The new requirements allow the specified minimum values of material strength for austenitic steels to be increased by 15% according to recognized material standards when greater values are provided in the material inspection certificates.

—The new requirements allow the combined capacity of all pressure relief devices to be sufficient to limit the pressure to 120% of the MAWP for liquefied compressed gases.

Section 178.274. One commenter stated that the required test pressure for UN portable tanks used for the transportation of propane would increase from 320 psig to 400 psig. We believe that the values cited by the commenter are not accurate. Based on the Fourth Edition of the Compressed Gas Association Handbook of Compressed Gases, the vapor pressure of propane is approximately 220–230 psia at a reference temperature of 115 °F (46.1 °C) and approximately 270–275 psia at 130 °F (54.4 °C). The required MAWP according to § 173.315 is 250 psi. The test pressure for a UN portable tank would be approximately the same as that for a DOT 51 portable tank and in some cases may be slightly less. In this case, it would not be in the interest of harmonization to vary from the internationally agreed design pressure formulas. Based on the above, we are adopting the requirement as proposed.

One commenter stated that aluminum should be authorized as a material for portable tank shell construction. The UN Recommendations allows aluminum only for portable tanks intended for liquid and solid materials when approved by the competent authority. Aluminum is not authorized for portable tank shells intended for non-refrigerated liquefied gases, however, aluminum is authorized for shells of portable tanks intended for the transportation of refrigerated liquefied gases. Based on the merits of these comments and to be consistent with the UN Recommendations, we are amending paragraph (b) accordingly.

Also regarding paragraph (b), some commenters requested background information explaining the justification and application of the proposed –40 °C lower range for the design temperature applicable to UN portable tanks. This lower temperature was adopted because the UN working group recognized that –20 °C was not sufficient to represent temperatures that UN portable tanks may experience in certain parts of the world. One commenter stated that it was not clear whether the requirement was applicable to all portable tank components or only to the shell. In response to this comment, we point out that the design temperature range applies to the shell which is the primary pressure and lading retention component of the portable tank. The general requirements for design and construction state that ''Portable tank materials must be suitable for the external environment where they will be transported taking into account the determined design temperature range.'' This provision requires service equipment to be suitable for the climatic conditions to which it will be exposed. For these reasons, we are not amending the proposed language.

One commenter stated that the change from the very prescriptive relief device location for IM portable tanks in § 178.270–11(b)(1)(i) to the less specific requirement is ''too open to interpretation'' and requested clarification. We do not agree with the commenter. The main safety concern is that when the tank is filled to its maximum filling condition, the relief device is located in the vapor space and will ensure that escaping vapor can be discharged free from any obstruction. The text accomplishes this objective and is more flexible and performance-oriented. Specifically limiting the location by specifying exact tolerances forces us to issue exemptions and approvals when the location varies from these specific parameters. In addition, the text as proposed in this section is consistent with how the HMR specifies pressure relief device location for DOT specification 400 series cargo tanks

(see178.345–10(c)). We are adopting the text as proposed.

One commenter stated that the proposed requirement to group outlet openings in paragraph § 178.274(e)(7) of the NPRM should not apply to portable tanks used for refrigerated liquified gases due to their unique design. The commenter explained that this requirement does not currently apply to exemption cryogenic portable tanks or MC 338 Specification cargo tanks (see § 178.338–7), nor is it a requirement under the UN Recommendations. We agree with this commenter and are amending the paragraph to reflect that the external fitting grouping requirement applies only to portable tanks intended for the transportation of non-refrigerated liquefied gases. This amendment is consistent with the current requirement that applies to DOT Specification 51 portable tanks in § 178.245–1(c). We agree that the additional exceptions applicable to locating openings in other locations in § 178.245–1(d)(1), (2) and (3) should also apply and, therefore, we are revising the text accordingly. Because these requirements are applicable only to portable tanks intended for the transport of non-refrigerated liquified gases, we are moving the text to the more appropriate location of § 178.276.

We received two comments concerning the proposed requirements for the internal valve emergency shut-off device in paragraph (e)(7). One commenter stated that there is no requirement in the UN Recommendations nor the IMDG Code for a thermally activated closure. Our intent with this paragraph is consistency with a requirement that was published under a final rule (Docket HM–166Y; 63 FR 37453) on July 10, 1998, requiring an IM portable tank to be retrofitted if unloaded while it remained on a transport vehicle with the power unit attached. The commenter stated that we proposed to expand the concept by making a thermally activated device part of the service equipment for all UN portable tanks and that the requirement would be contrary to harmonization because UN portable tanks are used worldwide. They suggested that the requirement should first be introduced at the UN Committee of Experts for consideration. Although the requirement is only a condition for unloading IM portable tanks from vehicles while the motor unit is attached, we were informed through meetings with portable tank users and manufacturers that it is not feasible to determine which IM portable tanks would be offloaded in this manner and that all IM portable tanks would need to be retrofitted with thermally activated closure devices (fusible links) in order to comply with the requirement in § 177.834(o). In a request for an interim final rule concerning the retrofitting requirement published in HM–166Y final rule, the Hazardous Materials Advisory Council (HMAC) stated ''For commercial and economic reasons, it is not practical to remove all tanks from service at once to retrofit the bottom outlet valves with thermally activated closure devices. Tanks are either in a transport cycle, in storage, or in repair/maintenance shops. If all of the portable tanks were taken out of service at the same time to complete this retrofit, many industrial operations would be severely disrupted.'' DOT 51 portable tanks are required to be fitted with these closures (see § 178.245–1(d)(iii)) and in the HM–215D NPRM we proposed that UN portable tanks used for non-refrigerated liquified gases be fitted with these devices consistent with paragraph 6.7.3.5.4 of the UN Recommendations. The UN Recommendations require ''quick closing'' shut-off devices that close automatically in the event of fire engulfment and unintended movement of the portable tank for portable tanks used to transport flammable refrigerated and flammable and toxic non-refrigerated liquified gases. We are removing the requirements for these shut-off devices to operate based on unintended movement because we believe it is not practical. We believe that even though this is not a requirement under the UN Recommendations for liquid materials, it is a domestic requirement and from the safety perspective, as discussed under Docket HM–166Y, it should be applied to U.S. manufactured UN portable tanks intended for the transportation of liquid hazardous materials which are flammable, pyrophoric, oxidizing or toxic. We believe it would be in the best interest of safety to fit these portable tanks with thermally activated closures. We estimate that the cost of installing a fusible link will be approximately $40.00 to $70.00 per portable tank based on information provided by tank and tank valve and component manufacturers. Installation at the time of manufacture will avoid downstream retrofitting costs, costs associated with shipping delays and logistical problems at a later date. In previous discussions with the Hazardous Materials Advisory Council and the Tank Container Association, we were informed that retrofitting of portable tanks would cost approximately $200.00 to $250.00 per portable tank. On the basis of these costs, it makes economic sense to install the devices at the time of manufacture. We agree that this requirement should be proposed to the UN Committee of Experts and will follow-up accordingly. On the basis of enhanced safety, minimal cost at the time of manufacture, shipping delays and logistics, we are requiring U.S. manufactured UN portable tanks intended for transporting certain liquids to be fitted with thermally activated closures (fusible links). The internal valve shut-off requirements are revised for consistency in §§ 178.275(d)(3), 178.276(c)(4) and 178.277(d).

Concerning paragraph (i), one commenter stated that markings such as maximum allowable working pressure, test pressure, maximum gross mass and the applicable T Code should be marked on the tanks following the ''UN'' mark in order to convey that the cargo is authorized for that particular portable tank. We agree that a T marking on the tank may be advantageous, however, the UN Recommendations do not require a T mark and imposing such a requirement is beyond the scope of this final rule. Incorporation of a T code marking in this rule could lead to different requirements in domestic and international regulations if such a proposal is not adopted by the UN Transport Subcommittee. With regard to the other markings, the information is marked on a specification plate (see § 178.274(i) of the regulatory text). Finally, we moved the requirements for the initial inspection and test of portable tanks from § 180.605(d), as presented in the NPRM, to the more appropriate location § 178.274(j).

Sections 178.274 and 178.275. One commenter stated that although the term ''fusible elements'' is used in the UN Recommendations, the purpose of the devices and whether they are mandatory service equipment is unclear. The commenter stated that in the final rule it would be helpful to clarify the definition and use of these devices. We agree with the commenter and are adding a definition for ''fusible elements'' in § 178.274(a)(3) and are clarifying the use of ''fusible elements'' in § 178.275(f)(4).

A commenter requested that we allow UN portable tanks used for the transportation of refrigerated liquefied gases to be tested using an inert gas as an alternative to hydrostatic testing with water. The commenter explained that this is a common industry practice and is necessary because the saddle designs for these portable tanks are not designed to hold the associated weight of the water necessary to conduct the

hydrostatic test. The commenter further explained that the alternative method is necessary because it is difficult to entirely remove all of the water in the inner tank after the hydrostatic test is completed. In addition, the UN Recommendations authorize the pressure test using an inert gas. We accept this comment and are amending § 178.274(j)(2) to include a provision to allow, as an alternative to hydrostatic testing with water, testing with an inert gas for portable tanks used for the transportation of refrigerated liquefied gases.

Section 178.275. Regarding paragraph (c), a commenter stated that damage to the liner in a portable tank would be inevitable when welding a blind (blank) flange on the inside and outside of the portable tank shell. The commenter suggested a tamper proof flange as an alternative to the welded flange as proposed in the NPRM. The UN portable tank working group considered a number of alternate configurations or possibilities for closing bottom openings in portable tanks when they are retrofitted to remove bottom opening configurations. The working group was opposed to use of a bolted flange because of the possibility that it may leak during transportation. While inclusion of an alternative to welding is beyond the scope of this rule, a means of authorizing non-welded bottom flange configurations may be considered under the alternative arrangement approval provisions.

Another commenter stated that the presence of a liner in a portable tank should not be justification for authorizing the portable tank to be used without an internal shut-off valve. The commenter stated that internal shut-off valves can be fitted on lined portable tanks and that the proposed exception would result in a decrease in safety. We agree and based on the merits of the comment, we believe that a lined tank should have a internal shut-off and are removing the proposed exception in paragraph (c)(4) which states, ''For a lined shell, the internal stop valve required by paragraph (c)(3)(i) of this section may be replaced by an additional external stop valve.''

One commenter stated that the external design pressure should not be based on the internal pressure because, as proposed, the requirement would impose unrealistic external design pressure requirements. We agree with this commenter and are revising the wording in paragraph (e) to remove the reference to the internal pressure. On this basis, a shell that is to be equipped with a vacuum-relief device must be designed to withstand, without permanent deformation, an external pressure of not less than 0.21 bar.

Section 178.276. See discussion under § 178.274 for discussion concerning the relocation of certain text.

We received a comment stating that § 178.276 should be revised to provide an exception from the internal stop valve requirement for portable tanks used for the transportation of chlorine. The commenter requested alternative wording to clarify whether a threaded cap or pipe plug can be used as the third means of closure on portable tank openings. We agree and are revising the text in § 178.276(c)(1) to state ''* * * and the third being a blank flange, threaded cap, plug or equivalent liquid tight closure device.'' We are also revising § 178.276(c)(3) to indicate that this paragraph only applies to openings below the liquid level of the portable tank. This wording will eliminate the need for portable tanks used to transport chlorine from having to be fitted with internal stop valves because these portable tanks have loading and unloading fittings only at the top of the tank. We are also including a new paragraph (7) to address inlets and discharge outlets, internal excess flow valves on portable tanks used to transport chlorine.

Section 178.277. One commenter stated that the NPRM preamble included a new filling limit for helium, yet it was not contained in the regulatory text in § 178.277. We recognized the oversight and added a new tank provision, TP5 to address the filling limit. (See § 172.102, Special Provisions.)

Another commenter stated that it is not necessary to specify impact test requirements in paragraph § 178.277(b)(4) and that the proposed provision for conducting impact tests at 0 °F on materials to be used for refrigerated liquefied gases are not suitable because such portable tanks operate at much lower temperatures. The commenter went on to say that the ASME Code adequately addresses this issue. We agree with the commenter and have removed the proposed provision.

Another commenter stated that we overlooked the fact that the UN Recommendations do not require portable tanks used for the transportation of refrigerated liquefied gases to have an opening for inspection. The commenter stated that the internal inspection requirements for these portable tanks should be removed because: (1) The portable tanks are not currently fitted with inspection openings, (2) internal corrosion is not a factor for portable tanks used to transport refrigerated liquefied gases, (3) the UN Recommendations do not require internal inspection for these portable tanks, and (4) fitting of inspection openings on these portable tanks does not enhance safety. We agree with the commenter and are including the exceptions for refrigerated liquefied gas portable tanks in paragraphs (d)(7) and § 180.605(e) and (f).

We are including the above discussed amendments and, as proposed in the NPRM, we are adding five new sections (§§ 178.273 through 178.277) to the HMR as follows: § 178.273 is added by moving the current requirements for the approval of Specification portable tanks from § 173.32a and introducing similar requirements for UN portable tanks; § 178.274 is added for the UN portable tank general design and construction requirements; § 178.275 is added for the additional specifications for UN portable tanks intended for the transportation of liquid and solid materials of Classes 3 through 9; § 178.276 is added for the additional requirements for UN portable tanks intended for the transportation of liquefied compressed gases; and § 178.277 is added for the additional requirements for the design, construction, inspection and testing of UN portable tanks intended for the transport of refrigerated liquefied gases.

Section 178.703. Consistent with § 178.3(a)(4), paragraph (a)(1) is revised by including a minimum height of 12 mm (0.5 inches) for IBC markings and by adding a requirement to allow use of the ''W'' mark for approval of equivalent IBC packagings, as provided for in § 178.801(i). Two commenters stated that while they support a minimum marking size of 12 mm for IBCs, it is not clear how this would apply to IBCs manufactured prior to the effective date of this final rule. In response to these commenters, we revised paragraph (a)(1) to clarify that the minimum marking size only applies to IBCs manufactured after the effective date of this final rule (October 1, 2001).

Section 178.705. We are revising the minimum wall thickness requirements to take into account the capacity in the case of metal IBCs.

Section 178.801. In paragraph (i), we are adding an approval provision for the use of large packagings, as defined in § 171.8 of this NPRM, provided the large packagings conform to the construction standards, performance testing and packaging marking as specified in UN Recommendations.

Section 178.812. Based on our initiative, we are revising paragraph (c)(1) and adding a new paragraph (c)(3) to include an alternate method for conducting the top lift test for flexible

IBCs. Prior to this final rule, the alternate method was authorized in several approvals issued by the Associate Administrator.

Part 179

Section 179.102–4. Consistent with the proper shipping name revisions that replace the word ''inhibited'' with ''stabilized'' (see § 172.101), we are revising one such proper shipping name in this section.

Part 180

Sections 180.601, 180.603, 180.605. We are moving the qualification and maintenance requirements for portable tanks from § 173.32(c) to part 180. As discussed in the NPRM, we believe that these requirements are more appropriately placed in part 180 along with the qualification and maintenance requirements for cargo tanks, IBCs and tank cars. Therefore, as proposed, we are adding new subpart G to part 180 for the qualification and maintenance of portable tanks. (Also see § 173.32.) One commenter suggested that we incorporate certain editorial changes to § 173.32 and part 180, subpart G, to clarify that not all portable tanks have a maximum allowable working pressure (MAWP) and that some requirements do not apply to all portable tanks, such as DOT Specification 56 and 57 portable tanks. We agree and have made the clarification revisions accordingly.

Section 180.603. A commenter requested that grandfather provisions be included in § 180.603 to recognize that portable tanks constructed and used in accordance with existing DOT exemptions are authorized for continued use provided they meet the applicable periodic inspection and test requirements. We do not agree with this request because such exemptions remain valid and their continued use are not affected by this final rule.

Section 180.605. Several commenters stated that the periodic inspection requirements for portable tanks proposed in the NPRM are not entirely consistent with those specified in the UN Recommendations. They quoted the UN Recommendations as stating: ''A portable tank filled prior to the date of expiry of the last periodic inspection and test may be transported for a period not to exceed three months beyond the date of expiry of the last periodic test or inspection.'' In addition, a portable tank may be transported after the date of expiry of the last periodic test and inspection after emptying but before cleaning, for purposes of performing the next required test or inspection prior to refilling and unless otherwise approved by the competent authority, for a period not to exceed six months beyond the date of expiry of the last periodic test or inspection, in order to allow the return of dangerous goods for proper disposal or recycling. Reference to this exemption shall be mentioned in the transport document. The commenters requested that we adopt this text from the UN Recommendations in the final rule. We do not agree that the UN Recommendations' text should be included in the HMR. We believe that the UN text imposes arbitrary limits on the length of time that a portable tank may be transported after expiration of the inspection and test date. The HMR text allows a portable tank to continue to be transported after the expiration of the test date while prohibiting filling of a tank once the periodic inspection and test dates have expired. We wish to clarify that the text as proposed was based on existing text for cargo tanks (see 173.33(a)(3)) and for portable tanks (see 173.32(e)(5)). The text in place prior to this final rule, as well as the text adopted in this final rule, allows portable tanks which contain a residue, or are being transported to a cleaning, testing or repair facility, to be transported after the inspection and test date expires. In the NPRM, we simply consolidated this requirement in a more appropriate section and applied it universally to all portable tanks. We are adopting the text as proposed, even though it is less restrictive than the UN Recommendations text, because it is practical and does not impose unnecessary burdens on the regulated public or government. On this basis, we are not adopting the suggestions of the commenters. We also wish to note that the text in § 180.605(b)(3), as proposed and adopted, requires a portable tank that has been out of service for more than one year to be periodically retested.

Several commenters stated that they support our efforts to adopt the UN portable tank requirements. The commenters support the requirement that DOT 51 Specification portable tanks not be allowed to be manufactured after January 1, 2003, however, they do not support the conditions for continued use of existing DOT 51 portable tanks as proposed in the NPRM. We did not introduce new requirements for periodically retesting DOT Specification 51 portable tanks in the NPRM nor was it our intention to do so. The retest provisions for DOT Specification 51 portable tanks are specified in § 180.605(c)(2) and requires that the portable tanks be retested at least once every 5 years.

For paragraphs (e) and (f), see § 178.277(d)(7) discussion regarding an exception from the requirement for portable tanks used for the transportation of refrigerated liquefied gases to have an opening for inspection. We moved the initial inspection and test requirements from § 180.605(d), as proposed in the NPRM, to § 178.274(j) which we believe is a more appropriate location. For a comment on an alternative to hydrostatic testing with water, see § 178.274(j).

We also received a comment stating that we should have included an exception from the requirement for UN portable tanks intended for the transportation of ''Helium refrigerated liquid (*cryogenic liquid*),'' UN1963 and ''Hydrogen, refrigerated liquid (cryogenic liquid),'' UN1966 to be subjected to the 4 G rail impact test as prescribed in § 180.605(d)(6). The commenter reasoned that high thermal performance liquid hydrogen and helium containers are not transported on railroads due to the large impact loads experienced during coupling and that such UN portable tanks are marked with the words ''NOT FOR RAIL TRANSPORTATION.'' We agree with the commenter. When the requirements for UN portable tanks were developed, the UN working group agreed that portable tanks used for the transportation of refrigerated liquefied helium and hydrogen should be excepted from rail impact testing. A special provision was added allowing the transportation of these refrigerated liquefied gases under conditions specified by the competent authority. In this final rule, we are excepting portable tanks intended for the transport of refrigerated liquefied helium and hydrogen from the requirements of a rail impact test. Instead of requiring an approval provision, we are adding a sentence to § 180.605(d)(6) to except portable tanks from the 4 G impact test when the portable tanks are used in dedicated service for the transportation of ''Helium, refrigerated liquid,'' UN1963 and ''Hydrogen, refrigerated liquid,'' UN1966 and are marked ''NOT FOR RAIL TRANSPORT'' in letters of a minimum height of 20 cm (8 inches) on at least two sides of the portable tank.

Another commenter stated that the proposed marking size amendment in § 180.605(l) requires inspection and test markings that are not included on the specification plate of a portable tank to be 32 mm (1.25 inches) high, yet as the commenter points out, currently § 173.32(e)(3) allows markings for DOT Specifications 51, 56, 57 and 60 portable tanks to be a minimum height of 12 mm. We agree with the commenter and after considering the proposed amendment, we do not believe that a marking height

of 32 mm is necessary for these particular portable tanks. Therefore, we are adopting a minimum test and inspection marking height of 3 mm when the markings are on the specification plate, and a marking height of 12 mm when the markings are directly on the portable tank.

IV. Rulemaking Analyses and Notices

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is not considered a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, was not reviewed by the Office of Management and Budget. This final rule is not considered a significant rule under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034). Benefits resulting from this final rule include enhanced transportation safety resulting from the consistency of domestic and international hazard communications and continued access to foreign markets by domestic shippers of hazardous materials. Many companies involved in domestic, as well as global operations, will realize economic benefits as a result of the amendments in this rulemaking. The total net increase in costs to businesses in implementing this rulemaking is minimal and we have determined that the intended benefits of harmonizing the HMR with international standards outweigh the minimal increase in costs to industry. For interested parties, a regulatory analysis is available for review in the public docket.

B. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (''Federalism''). This final rule preempts State, local and Indian tribe requirements but does not adopt any regulation that has substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazardous material transportation law, 49 U.S.C. 5101–5127, contains an express preemption provision (49 U.S.C. 5125(b)) that preempts State, local, and Indian tribe requirements on certain covered subjects. Covered subjects are:

(1) The designation, description, and classification of hazardous materials;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;

(3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous; or

(5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This final rule addresses covered subject items (1), (2), (3), and (5) above and would preempt State, local, and Indian tribe requirements not meeting the ''substantively the same'' standard. This final rule is necessary to incorporate changes already adopted in international standards. If the changes in this final rule are not adopted in the HMR, U.S. companies, including numerous small entities competing in foreign markets, would be at an economic disadvantage. These companies would be forced to comply with a dual system of regulation. The changes in this final rule are intended to avoid this result. Federal hazardous materials transportation law provides at section 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. Thus, RSPA lacks discretion in this area. The effective date of Federal preemption will be December 18, 2001.

C. Executive Order 13084

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13084 (''Consultation and Coordination with Indian Tribal Governments''). Because this final rule does not significantly or uniquely affect the communities of the Indian tribal governments and does not impose substantial direct compliance costs, the funding and consultation requirements of Executive Order 13084 do not apply.

D. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities, unless the agency determines that a rule is not expected to have a significant impact on a substantial number of small entities. This final rule will serve to facilitate the transportation of hazardous materials in international commerce by providing consistency with international standards. This final rule applies to offerors and carriers of hazardous materials, some of whom are small entities, such as, chemical manufacturers, chemical users and suppliers, packaging manufacturers, distributors, battery manufacturers, radiopharmaceutical companies and training companies. Based on our assessment in the regulatory analysis, which is available in the public docket, I hereby certify that this final rule will not have a significant economic impact on a substantial number of small entities.

The majority of amendments in this final rule should result in cost savings and ease the regulatory compliance burden for shippers engaged in domestic and international commerce, including trans-border shipments within North America. For example, cost savings will be realized by shippers and carriers as a result of eliminating the differences between primary and subsidiary labels. As a result of this change, it will no longer be necessary to stock two sets of labels for each hazard class. To ease any burden associated with this change, we are incorporating a reasonable transition period where labels meeting requirements in effect immediately prior to this final rule and the requirements adopted in this final rule may be used.

Other cost savings include providing greater flexibility for the use of IBCs and portable tanks; retaining current IM 101, 102 and DOT Specification 51 portable tank requirements and providing authorizations for their use; deleting numerous entries from the marine pollutant list for consistency with the IMDG Code; authorizing greater flexibility for transporting samples of hazardous materials; authorizing the use of a single explosives placard when explosives of several compatibility groups are transported in a single freight container or vehicle; and revising requirements for large lithium batteries which will simplify the regulatory requirements applicable to batteries used in high energy efficient hybrid vehicles. Finally, we are authorizing immediate voluntary compliance, delayed effective dates and a one-year transition period to allow for training of employees and to ease any burden on entities affected by the amendments.

E. Paperwork Reduction Act

We have current information collection approvals under OMB No. 2137–0018, Inspection and Testing of Portable Tanks and Intermediate Bulk Containers, which expires March 31, 2002, with 51,340 burden hours and $10,235,000 annual costs, and OMB No. 2137–0557, Approvals for Hazardous Materials, which expires March 31, 2002, with 18,302 burden hours and $413,737.40 annual costs. We believe that this final rule may result in minor incremental increases in the annual burden hours and costs. The current approvals has been revised and resubmitted to OMB for extension and reapproval.

OMB No. 2137–0018 contains the information collection and recordkeeping requirements in current §§ 173.32, 173.32a, 173.32b, 178.245 and 178.801 for tests, inspections and related records related to the manufacture, qualification, repair or modification of portable tanks or intermediate bulk containers. This information is used to verify that portable tanks and intermediate bulk containers meet the required manufacturing standards prior to being authorized for initial use, and that once manufactured, the packagings are maintenance in conformance with the applicable HMR requirements. OMB No. 2137–0018 is revised to include UN portable tanks and to revise section references to the portable tank requalification requirements which are being relocated to subpart G in Part 180.

OMB No. 2137–0557 contains the information collection and recordkeeping requirements for packagings and hazardous materials approvals. This information is used to verify that portable tank designs meet the applicable standards. OMB No. 2137–0557 is revised to include UN portable tanks and to revise the section references to the portable tank design approval requirements which are being relocated to Part 178.

We estimate that the adjusted total information collection and recordkeeping burdens are as follows:

OMB No. 2137–0018:

Affected Public: Manufacturers, requalifiers, repairers and modifiers, and owners of certain DOT specification and exemption portable tanks and intermediate bulk containers.

Number of Respondents: 8,770.

Total Annual Responses: 86,100.

Total Annual Burden Hours: 66,390.

Total Annual Burden Cost: $ 7,137,500.

One-time Annual Start Up Burden Hours: 350.

OMB No. 2137–0557:

Number of Respondents: 3,518.

Total Annual Responses: 3,869.

Total Annual Burden Hours: 18,381.

Total Annual Burden Cost: $ 413,737.40.

Requests for a copy of the information collection approvals, requests and data should be directed to Deborah Boothe, Office of Hazardous Materials Standards (DHM–10), Research and Special Programs Administration, Room 8102, 400 Seventh Street, SW, Washington, DC 20590–0001, Telephone (202) 366–8553.

F. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

G. Unfunded Mandates Reform Act

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $100 million or more to either State, local or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of the rule.

H. Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA) requires Federal agencies to consider the consequences of major federal actions and prepare a detailed statement on actions significantly affecting the quality of the human environment. We developed an assessment to determine the effects of these revisions on the environment and whether a more comprehensive environmental impact statement may be required. Our findings conclude that there are no significant environmental impacts associated with this final rule. Consistency in regulations for the transportation of hazardous materials aids in the shipper's understanding of what is required and permits shippers to more easily comply with safety regulations and avoid the potential for environmental damage or contamination. For interested parties, an environmental assessment is available in the public docket.

List of Subjects

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

49 CFR Part 172

Education, Hazardous materials transportation, Hazardous waste, Labeling, Markings, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 173

Hazardous materials transportation, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

49 CFR Part 175

Air carriers, Hazardous materials transportation, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 176

Hazardous materials transportation, Maritime carriers, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 177

Hazardous materials transportation, Motor carriers, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 178

Hazardous materials transportation, Motor vehicle safety, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 179

Hazardous materials transportation, Railroad safety, Reporting and recordkeeping requirements.

49 CFR Part 180

Hazardous materials transportation, Motor carriers, Motor vehicle safety, Packaging and containers, Railroad safety, Reporting and recordkeeping requirements.

DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

49 CFR Parts 171, 172, 173, 174, 176, 178, 180

[Docket No. RSPA–2000–7702 (HM–215D)]

RIN 2137–AD41

Harmonization With the United Nations Recommendations, International Maritime Dangerous Goods Code, and International Civil Aviation Organization's Technical Instructions

AGENCY: Research and Special Programs Administration (RSPA), DOT.

ACTION: Final rule; corrections and response to petitions for reconsideration.

SUMMARY: On June 21, 2001, RSPA published a final rule under Docket HM–215D amending the Hazardous Materials Regulations (HMR) based on corresponding provisions of international standards. The revisions were made to facilitate the transportation of hazardous materials in international commerce. This final rule corrects errors in the June 21, 2001, final rule and responds to two petitions for reconsideration.

DATES: *Effective Date:* April 3, 2002.

Voluntary Compliance Date: Compliance with the regulations, as amended herein, is authorized as of June 21, 2001.

FOR FURTHER INFORMATION CONTACT: Joan McIntyre, Office of Hazardous Materials Standards, telephone (202) 366–8553, or Shane Kelley, International Standards, telephone (202) 366–0656, Research and

Special Programs Administration, U.S. Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590–0001.

SUPPLEMENTARY INFORMATION:

I. Introduction

On June 21, 2001, the Research and Special Programs Administration (RSPA, we) published a final rule under Docket HM–215D (66 FR 33316) revising the HMR to maintain alignment with recent changes to corresponding provisions in international standards. Changes to the International Maritime Dangerous Goods Code (IMDG Code), the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions), and the United Nations Recommendations on the Transport of Dangerous Goods (UN Recommendations) necessitated amendments to domestic regulations to provide consistency and facilitate the transport of hazardous materials in international commerce. This final rule corrects various errors primarily made during the printing process of the June 21, 2001, **Federal Register** and responds to two petitions for reconsideration.

II. Section-by-Section Review

Part 171

Section 171.12. In § 171.12, in paragraph (b)(5), a redundant phrase is removed and in paragraph (e)(4), a nonexistent paragraph reference is corrected.

Section 171.14. We received a petition for reconsideration requesting we revise § 171.14(d)(4) as adopted in the June 21, 2001, final rule. Paragraph (d)(4) reads as follows:

> (4) Until January 1, 2010, a hazardous material may be transported in an IM or IMO portable tank in accordance with the T Codes (Special Provisions) assigned to a hazardous material in Column (7) of the HMT in effect on September 30, 2001.

Specifically, the petitioner seeks reconsideration of the provision as it relates to IM portable tanks, stating the provision is unreasonable by limiting the continued use of IM Specification portable tanks to less than 10 years from the publication date of the final rule. The petitioner reasoned that from a safety perspective we have no reason to impose such a time limitation. The petitioner also cited our authorization for the indefinite continued use of DOT Specification 51 tanks and questioned the omission of the same provision for IM Specification portable tanks.

Paragraph (d)(4) does not limit the continued use of IM portable tanks, rather it authorizes, until January 1, 2010, the use of the ''old'' T code special provisions in effect prior to the effective date of the HM–215D final rule (October 1, 2001). Persons have the option of using the ''old'' or the ''new'' T codes until January 1, 2010 at which time the ''new'' T codes as adopted in the June 21, 2001, final rule become mandatory. Section 173.32(c)(2) of the June 21, 2001 final rule includes the authorization for the continued use of IM portable tanks provided certain requirements are met. No time limitations are imposed. In addition, § 173.32 allows IM portable tanks to be constructed until January 1, 2003. We are responding to the petition for reconsideration by adding a phrase to § 171.14(d)(4) to refer the reader to § 173.32(c) for the continued use of IM portable tanks. Additionally, we are adding a clarifying phrase to § 173.32(c)(2) to describe the reason for referring the reader to § 171.14(d)(4).

Part 172

Section 172.101. In § 172.101, in paragraph (c)(11)(iv)(A), we are correcting the paragraph by adding the authorization for the word ''Sample'' to appear as part of the proper shipping name (for example, ''Flammable liquid, n.o.s., Sample''). This serves as an alternative to the requirement for the word ''Sample'' to appear in association with the basic description on the shipping paper, unless the word ''Sample'' already appears in the proper shipping name. Although we discussed the intent in the preamble of the June 21, 2001, final rule, the phrase was omitted from the regulatory text.

The Hazardous Materials Table (HMT). Following are corrections made to the § 172.101 HMT. Unless otherwise specified, the corrections are due to errors made during the typesetting process.

—The entry ''Batteries, wet, filled with alkali, *electric storage,*'' UN2795, which was inadvertently deleted, is added.

—For the entry, ''Diethylthiophosphoryl chloride,'' UN2751, Columns (8A) through (10B) are corrected to read ''None,'' ''212,'' ''240,'' ''15 kg,'' ''50 kg,'' ''D,'' and ''12, 40,'' respectively.

—For four entries, Special Provision TP37 is added to Column (7) of the HMT. The Special Provision was proposed for the entries in the October 23, 2000, notice of proposed rulemaking (NPRM), however, it was inadvertently omitted in the final rule. The four entries are: ''Hydrogen peroxide, aqueous solutions *with more than 40 percent but not more than 60 percent hydrogen peroxide (stabilized as necessary),*'' UN2014; ''Hydrogen peroxide, aqueous solutions *with not less than 20 percent but not more than 40 percent hydrogen peroxide (stabilized as necessary),*'' UN2014; ''Hydrogen peroxide, stabilized *or* Hydrogen peroxide aqueous solutions, stabilized *with more than 60 percent hydrogen peroxide,*'' UN2015; and ''Hydrogen peroxide, aqueous solutions *with not less than 8 percent but less than 20 percent hydrogen peroxide (stabilized as necessary),*'' UN2984.

—For the entry ''Metal catalyst, dry,'' UN2881, Packing Group I, Columns (9A) and (9B) are corrected to read ''Forbidden.''

—For the entry ''Nitromethane,'' UN1261, Column (9B) is corrected to read 60 L.

—The entry ''2,5-Norbornadiene, stabilized, *see* Bicyclo 2,2,1 hepta-2,5-diene, stabilized'' is corrected by adding a comma before ''stabilized.''

—The entry ''Organochlorine, pesticides, solid, toxic,'' UN2761 is corrected by adding a comma after ''solid'' in the proper shipping name.

—The entry ''*Pepper spray, see Aerosols, etc. or Self-defense spray, non-pressurized*'' is removed the second time it appears in the HMT. The ''see'' entry was mistakenly duplicated and erroneously included column entries from the previous entry.

—The entry ''Phosphoric acid, *liquid or solid,*'' UN1805 is revised by adding the optional ''liquid or solid'' wording.

—For the entry ''Polymeric beads, expandable, *evolving flammable vapor,*'' UN2211, ''9'' is added to Column (6) and Special Provision IP7 is added to Column (7).

—For nine Class 7 entries, the vessel stowage code ''95'' is added. The stowage code was inadvertently deleted from Column (10B).

—For 11 entries ''IP8'' is removed as a special provision reference from Column (7) of the HMT. In the NPRM and final rule, the reference was inadvertently included in Column (7). IP8 is consistent with the UN Recommendations special IBC packing provision and gives a vapor pressure limitation for liquids transported in IBCs. This special provision is unnecessary for inclusion into the HMR because the ''Additional Requirements'' in Special Provisions IB1 through IB3 already contain the vapor pressure limits on materials that are authorized to be transported in IBCs and these special provisions are currently assigned to the appropriate entries. The 11 entries are: ''Cyclopentene,'' UN2246; ''Dichloromethane,'' UN1593; ''Dimethyl sulfide,'' UN1164; Ethyl

bromide,'' UN1891; ''Glycidaldehyde,'' UN2622; ''Isohexenes,'' UN2288; ''2-Methyl-2-butene,'' UN2460; ''Methyl propyl ether,'' UN2612; ''Methylal,'' UN1234; ''Pentanes,'' UN1265; and ''Propyl chloride,'' UN1278.

—The entry ''Samples, explosive, *other than initiating explosives*'' which was inadvertently deleted is added.

—The entry ''Substances, explosive, n.o.s.'' is corrected by revising ''6'' to read ''G'' in Column (1).

—The entry ''Vinyl chloride, stabilized'' is corrected by removing the duplicative wording ''*or* Vinyl chloride, stabilized'' from the proper shipping name.

Appendix B to § 172.101. In Appendix B to § 172.101, the List of Marine Pollutants is corrected as follows:

''Cumene'' is removed. ''Cumene'' and ''Isopropylbenzene'' describe the same material. Although ''Isopropylbenzene'' was removed from the List of Marine Pollutants in the June 21, 2001, final rule, ''Cumene'' was overlooked as its synonym.

''2,4-D'' is removed. ''2,4-D'' and ''2,4 Dichlorophenoxyacetic acid'' describe the same material and we overlooked the former when removing ''2,4 Dichlorophenoxyacetic acid.''

''Dimethylphenols, liquid or solid'' is removed. ''Dimethylphenols'' and ''Xylenols'' describe the same material. We removed ''Xylenols'' and overlooked ''Dimethylphenols, liquid or solid'' as its synonym.

''Ethyl acrylate, stabilized,'' ''Methylstyrenes, stabilized'' and ''Vinyltoluenes, stabilized *mixed isomers*'' are removed. ''Ethyl acrylate, inhibited'' and ''Vinyltoluenes, inhibited *mixed isomers*'' were proposed to be removed, but were mistakenly added to the List of Marine Pollutants in the final rule, published on June 1, 2001, with the word ''stabilized'' replacing the word ''inhibited.''

Section 172.102. In § 172.102, the following corrections are made:

—In Special Provision 136, ''part 173'' is corrected to read ''part 172.''

—Paragraph (c)(4) is editorially revised for clarity.

—Paragraph (c)(7)(i) is revised by adding ''IM'' Specification portable tanks to indicate that the ''T'' Codes apply to UN and IM Specification portable tanks.

—In the paragraph (c)(7)(iv) Portable Tank Code T50 table, the maximum filling density (kg/l), 0.811954, for the entry ''UN1912, Methyl chloride and methylene chloride mixture'' is revised to read ''0.81.''

Section 172.519. The date ''September 30, 2001'' is corrected to read ''October 1, 2001'' the second place it appears in paragraph (b)(4).

Part 173

Section 173.24b. In paragraph (e)(2) introductory text, the last sentence is editorially corrected by removing the word ''be.''

Section 173.32. We are responding to a petition for reconsideration (see preamble discussion under § 171.14) by adding a clarifying phrase to paragraph (c)(2).

Section 173.150. The misplacement of the word ''and'' in paragraph (d)(2) is corrected.

Section 173.185. We are adding a clarification to paragraph (a). Included in the June 21, 2001, final rule preamble, and based on a comment to the NPRM, we stated that we were revising the definition of ''lithium content'' to make it consistent with a minor editorial clarification adopted by the Committee of Experts in its Report of the 21st Session. The intent of the clarification was to prevent possible confusion regarding the lithium-equivalent content of lithium-ion battery packs currently used in many portable devices. Although the amendment was discussed in the preamble, it was not included in the regulatory text. This document corrects the oversight.

We are also revising paragraph (e)(3). We received a petition for reconsideration concerning paragraphs (e)(3) and (e)(7). Paragraph (e) allows cells and batteries to be transported as Class 9 materials provided they meet the requirements in paragraphs (e)(1) through (e)(7). The requirement in paragraph (e)(3) states batteries containing cells or series of cells connected in parallel must be equipped with diodes to prevent reverse current flow. The petitioner stated that limiting the protective requirement to diodes unnecessarily restricts the use of equally effective alternative protection means as allowed by the UN Recommendations and impedes the transportation of large lithium batteries. We agree with the petitioner's reasoning that many lithium battery manufacturers currently employ other technology to provide equally protective means of protection. Based on the above discussion, we are revising paragraph (e)(3) to reflect the allowance of any effective means of preventing reverse current flow.

The petitioner also requested we remove the prohibition in paragraph (e)(7) to transport cells and batteries if any cell has been discharged to the extent that the open circuit voltage is less than two volts or less than two thirds of the voltage of the fully charged cell, whichever is less. The petitioner's request regarding paragraph (e)(7) is beyond the scope of this rulemaking.

Section 173.242. Paragraph (c) is editorially revised by replacing ''Specification IM'' with ''IM 101 and IM 102.''

Section 173.243. Paragraph (c) is corrected by adding ''IM 101 and IM 102'' to the portable tanks authorized for certain high hazard liquids and dual hazard materials posing a moderate hazard.

Part 174

Section 174.81. The word ''stowed'' in paragraphs (e)(6) and (g)(3)(vi) is corrected to read ''loaded and transported.'' The word ''stowed'' is specific to the corresponding vessel section of the HMR.

Part 176

Section 176.84. In paragraph (c)(2), in the List of Notes, the last note number is corrected to read ''27E.''

Part 178

Section 178.274. In paragraph (a), the wording ''refrigerated liquefied gases,'' which was deleted during the printing process, is added to the definition for test pressure. In paragraph (d)(1)(i), the reference ''through (d)(10)'' is corrected to read ''through (d)(7).''

Part 180

Section 180.605. In paragraph (d), the incorrect reference to paragraph (i) for leakage test requirements is corrected to refer to paragraph (h). Paragraph (e) is revised to clarify the provisions for the exception from the requirement for the internal inspection and hydraulic pressure test. Paragraph (h)(3) is corrected by adding the inadvertently deleted test pressure for refrigerated liquefied gases.

III. Rulemaking Analyses and Notices

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is not considered a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, was not reviewed by the Office of Management and Budget. This final rule is not considered a significant rule under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034). Because of the minimal economic impact of this final rule, preparation of a regulatory impact analysis or a regulatory evaluation is not warranted.

B. Executive Order 13132

This final rule was analyzed in accordance with the principles and

criteria in Executive Order 13132 (''Federalism''). This final rule preempts State, local and Indian tribe requirements but does not adopt any regulation that has substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazardous materials transportation law, (49 U.S.C. 5101–5127) contains express preemption provisions at 49 U.S.C. 5125(b) that preempts State, local and Indian tribe requirements on certain covered subjects. Covered subjects are:

(1) The designation, description, and classification of hazardous materials;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;

(3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous; or

(5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This final rule addresses covered subject items (1), (2), (3), and (5) above and would preempt State, local, and Indian tribe requirements not meeting the ''substantively the same'' standard. This final rule is necessary to incorporate corrections to changes already adopted in international standards. Federal hazardous materials transportation law provides at section 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. The effective date of Federal preemption will be September 30, 2002.

C. Executive Order 13175

This final rule was analyzed in accordance with the principles and criteria contained in Executive Order 13175 (''Consultation and Coordination with Indian Tribal Governments''). Because this final rule does not have tribal implications, does not impose substantial direct compliance costs, and is required by statute, the funding and consultation requirements of Executive Order 13175 do not apply.

D. Regulatory Flexibility Act

I certify that this final rule will not have a significant economic impact on a substantial number of small entities. This final rule corrects errors in a final rule published June 21, 2001 under Docket RSPA–00–7702 (HM–215D) and will not have any direct or indirect adverse economic impacts on a substantial number of small entities.

E. Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995, no person is required to respond to a collection of information unless it displays a valid OMB control number. There are no new information collection requirements in this final rule.

F. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

List of Subjects

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Reporting and recordkeeping requirements.

49 CFR Part 172

Education, Hazardous materials transportation, Hazardous waste, Labeling, Markings, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 173

Hazardous materials transportation, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

49 CFR Part 174

Hazardous materials transportation, Radioactive materials, Railroad safety.

49 CFR Part 176

Hazardous materials transportation, Maritime carriers, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 178

Hazardous materials transportation, Motor vehicle safety, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 180

Hazardous materials transportation, Motor carriers, Motor vehicle safety, Packaging and containers, Railroad safety, Reporting and recordkeeping requirements.

Issued in Washington, DC, on March 14, 2002, under authority delegated in 49 CFR part 1.

Ellen G. Engleman,

Administrator.

Reserved

Reserved
Pages 436 – 456

DEPARTMENT OF TRANSPORTATION

Federal Motor Carrier Safety Administration

49 CFR Part 397

[Docket No. FMCSA–02–13376; Docket No. RSPA–02–12773 (HM–232B)]

RIN 2126—AA74; RIN 2137–AD69

Revision to Periodic Tire Check Requirement for Motor Carriers Transporting Hazardous Materials

AGENCY: Federal Motor Carrier Safety Administration (FMCSA), DOT.

ACTION: Final rule.

SUMMARY: The Federal Motor Carrier Safety Administration is eliminating an outdated requirement for certain motor vehicle operators to stop periodically to check their tires. Eliminating this requirement enhances the security of hazardous materials shipments.

DATES: The effective date of this final rule is November 4, 2002.

FOR FURTHER INFORMATION CONTACT: William Quade, (202) 366–6121, Office of Enforcement and Compliance (MC–ECH), Federal Motor Carrier Safety Administration, 400 Seventh Street, SW., Washington, DC 20590. Office hours are from 7:30 a.m. to 4:15 p.m., e.t., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:

Background

After the terrorist attacks of September 11, 2001, the Federal Motor Carrier Safety Administration (FMCSA) and the Research and Special Programs Administration (RSPA) reviewed government and industry hazardous materials transportation safety and security programs with a view towards identifying areas where security should be enhanced. Over 800,000 shipments of hazardous materials occur each day in the United States. The overwhelming majority of these shipments—approximately 95 percent—are made by highway. Many of the hazardous materials transported by motor carriers potentially may be used as weapons of mass destruction or in the manufacture of such weapons. Since September 11, 2001, on several occasions, Federal law enforcement officials provided information indicating that terrorist organizations may be planning to use motor vehicles transporting certain hazardous materials for additional terrorist attacks on facilities in the United States.

Prior to 1975, the Secretary of Transportation regulated the transportation of hazardous materials by highway under the authority of the Motor Carrier Safety Act (MCSA). The authority to issue regulations under the MCSA is currently delegated to FMCSA. 49 CFR 1.73(g). In 1974, Congress passed the Hazardous Materials Transportation Act (HMTA). The HMTA gave the Secretary the authority to issue ''regulations for the safe transportation in commerce of hazardous materials'' applicable to ''any person who transports, or causes to be transported or shipped, a hazardous material * * *.'' Public Law 93–633; 88 Stat. 2156 (Jan. 3, 1975). The Secretary delegated this rulemaking authority to RSPA. 49 CFR 1.53(b).

Motor carriers that transport hazardous materials in interstate commerce must comply with both the Hazardous Materials Regulations (HMR; 49 CFR parts 171–180), administered by RSPA, and the Federal Motor Carrier Safety Regulations (FMCSR; 49 CFR parts 390–397), administered by FMCSA. Motor carriers that transport hazardous materials in intrastate commerce must comply with the HMR, and the FMCSR to the extent that they apply (See 62 FR 1208, 1213 (January 8, 1997) and 49 CFR 177.804). As a result of a 1984 amendment to the MCSA and a 1990 amendment to the HMTA, RSPA is authorized to eliminate or amend regulations (other than highway routing regulations) that appear in part 397 of the FMCSR and that apply solely to the maintenance, equipment, loading, or operation of motor vehicles carrying hazardous materials. Therefore, we are issuing this final rule as a joint RSPA–FMCSA rulemaking.

Section 397.17 of the FMCSR requires periodic tire inspections for certain vehicles transporting hazardous materials. Drivers of vehicles with dual tires must stop every two hours or 100 miles to inspect the tires. When

originally promulgated, this requirement was intended to prevent possible fires caused by overheated tube-type tires. With advancements in tire technology, fires caused by tire overheating occur much less frequently.

To require a vehicle transporting a hazardous material to stop at frequent regular intervals increases the security risk associated with such transportation. Any stop provides an opportunity for potential highjacking or theft of the vehicle and its cargo. Eliminating the tire check stop reduces this potential security risk. On July 16, 2002, we published a Notice of Proposed Rulemaking (NPRM) (67 FR 46624) proposing to eliminate this outdated requirement for certain motor vehicle operators to stop periodically to check their tires.

Discussion of Comments

We received eight comments on the NPRM. Most commenters support the proposal to eliminate the requirement that certain motor vehicle operators periodically stop to check their tires. They agree with us that advancements in tire technology, specifically the elimination of inner-tubes, have largely eliminated the risk of fire caused by tire overheating. Hence, stopping every two hours or 100 miles to check the tires is no longer necessary. The commenters also support our position that frequent stops compromise the security of hazardous materials shipments and increase the vulnerability to theft and hijackings.

One commenter disagrees with the proposed changes, stating that a reduction in potential security risks for motor carriers should not come from the elimination of regulations that were established to promote carrier and public safety. As stated in the NPRM, we are not eliminating all tire checks. An operator of a motor vehicle transporting hazardous materials must still check each tire at the beginning of each trip and each time the vehicle is parked. Thus, we do not agree that elimination of the periodic 2 hour/100 mile tire check requirement reduces safety. This commenter also suggests that training for drivers that includes increased security awareness concerning hijackings and theft would be beneficial. In this regard, we note that in an NPRM published under Docket HM–232 on May 2, 2002 (67 FR 22030), we are proposing to add a provision to § 172.704 to require the training of hazmat employees to include a security component covering how to recognize and respond to possible security threats.

A commenter who supports the proposal notes that 49 CFR 392.9, Safe loading, requires drivers of trucks and truck tractors to stop periodically to examine the vehicle's cargo and its load-securing devices. The commenter suggests that we also analyze the risk and benefits related to periodic inspection of load-securing devices. The requirement for safe loading of cargo applies to all types of cargo and not just hazardous materials shipments, and therefore is outside the scope of this rulemaking.

Rulemaking Analyses and Notices

Executive Order 12866 (Regulatory Planning and Review) and DOT Regulatory Policies and Procedures

The FMCSA has determined that this is not a significant regulatory action within the meaning of Executive Order 12866, or significant within the meaning of DOT regulatory policies and procedures (44 FR 11034).

Eliminating the periodic tire check requirement for motor vehicles transporting hazardous materials will not result in increased compliance costs on the industry. Instead, eliminating periodic stops to check tires will decrease costs for the industry by reducing en route shipment delays and, thus, improving overall delivery times. Because this final rule eliminates a requirement, preparation of a cost-benefit analysis is not warranted.

Regulatory Flexibility Act

In compliance with the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*), the FMCSA evaluated the effects of this action on small entities. Accordingly, we certify that this action does not have a significant economic impact on a substantial number of small entities.

Executive Order 13132 (Federalism)

This action was analyzed in accordance with the principles and criteria contained in Executive Order 13132. It has been determined that this final action does not have a substantial direct effect on States, nor would it limit the policy-making discretion of the States. Nothing in this document preempts any State law or regulation.

Executive Order 13175

This final rule has been analyzed under Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments). Because this final rule does not significantly or uniquely affect the communities of the Indian tribal governments and does not impose substantial direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply.

Unfunded Mandates Reform Act of 1995

This final rule does not impose an unfunded mandate, as defined by the Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1532 *et seq.*) that will result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of $100 million or more in any one year.

Paperwork Reduction Act

This action does not contain an information collection requirement for the purposes of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520).

Environmental Assessment

There are no significant environmental impacts associated with this final rule.

List of Subjects in 49 CFR Part 397

Administrative practice and procedure, Highway safety, Intergovernmental relations, Motor carriers, Parking, Radioactive materials, Reporting and recordkeeping requirements, Tires.

Issued on September 30, 2002.

Joseph M. Clapp,

Administrator, Federal Motor Carrier Safety Administration.

Ellen G. Engleman,

Administrator, Research and Special Programs Administration.

[FR Doc. 02–25226 Filed 10–3–02; 8:45 am]

BILLING CODE 4910–EX–P

DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

49 CFR Part 107

[Docket No. RSPA–00–8439 (HM–208D)]

RIN 2137–AD53

Hazardous Materials: Temporary Reduction of Registration Fees

AGENCY: Research and Special Programs Administration (RSPA), DOT.

ACTION: Final rule.

SUMMARY: RSPA is reducing the registration fees paid by persons who transport or offer for transportation in commerce certain categories and quantities of hazardous materials, in order to eliminate the unexpended balance in the Hazardous Materials Emergency Preparedness Grants Fund. RSPA is also revising its regulations to provide that a not-for-profit organization will pay the same registration fee as a small business.

EFFECTIVE DATE: March 3, 2003.

FOR FURTHER INFORMATION CONTACT: Mr. David Donaldson, Office of Hazardous Materials Planning and Analysis, (202) 366–4484, or Ms. Deborah Boothe, Office of Hazardous Materials Standards, (202) 366–8553, Research and Special Programs Administration, U.S. Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590.

SUPPLEMENTARY INFORMATION:

I. Background

Since 1992, the Research and Special Programs Administration (RSPA) has conducted a National registration program for persons who offer for transportation or transport certain hazardous materials in intrastate, interstate, or foreign commerce, under the mandate in 49 U.S.C. 5108. The purposes of the registration program are to (1) gather information about the transportation of hazardous material and (2) fund the Hazardous Materials Emergency Preparedness (HMEP) grants program that supports hazardous material emergency response planning and training activities by States, local governments, and Indian tribes and related activities. *See* 49 U.S.C. 5108(b), 5116. The law gives RSPA discretion to require additional persons to register, beyond those offerors and transporters of the categories and quantities of hazardous materials listed in 49 U.S.C. 5108(a)(1), and to set the annual registration fee between $250 and $5,000. *See* 49 U.S.C. 5108(a)(2), 5108(g)(2)(A).

Until 2000, only those persons who offered or transported the categories and quantities of hazardous materials set forth in § 5108(a)(1) were required to register, and the annual registration fee was set at the minimum level of $250 (plus a processing fee of $50). In each year through the July 1, 1999–June 30, 2000 registration year, the total registration fees collected by RSPA amounted to less than one-half of the total $14.3 million intended by Congress for training and planning grants and grant-related activities.

In a final rule published in the **Federal Register** (65 FR 7297) on February 14, 2000, RSPA expanded the base of registrants and adopted a two-tiered fee schedule under which the registration fee was set at $275 for a person meeting the Small Business Administration (SBA) criteria for a small business, and $1,975 for other persons (plus a $25 processing fee in all cases). A greater-than-anticipated number of persons has paid the higher registration fee applicable to a larger business. As a result, RSPA has collected more than $21 million in each registration year since 2000. These collections have created a surplus (unexpended balance) in the HMEP Fund because the current annual grants program obligations are limited to the $14.3 million designated by Congress. Section 5108(g)(2)(B) of 49 U.S.C. requires RSPA to adjust the amount being collected ''to reflect any unexpended balance'' in the HMEP Fund. Therefore, on December 7, 2000, we published a notice of proposed rulemaking (NPRM) in this docket proposing to temporarily lower the registration fee for all registrants for six registration years to $250 (plus a $25 processing fee) for small businesses and $475 (plus a $25 processing fee) for all other persons. 65 FR 76890. In addition, we proposed to specify that a not-for-profit organization (regardless of its size) pay the same fee as a small business; to reflect SBA's replacement of the Standard Industrial Classification (SIC) code system with the North American Industry Classification System (NAICS), and to allow payment by credit cards not previously authorized.

On September 16, 2002, RSPA published a final rule under Docket HM–208E (67 FR 58343) adopting the NAICS codes, allowing payment methods not previously authorized, and permitting registration via the Internet. However, we have delayed taking final action on the fee-related proposals in the December 7, 2000 NPRM because our budget requests to Congress for FY 2002 and FY 2003 proposed to fund a portion of RSPA's hazardous materials safety program from the excess registration fees (above the $14.3 million specified to be used for training and planning grants and grant-related activities). *See* the status documents we published in the **Federal Register** on May 2, 2001 (66 FR 22080), and March 14, 2002 (67 FR 11456). Since these proposals were not adopted by Congress in the FY 2002 DOT appropriations and the FY 2003 DOT appropriations bill is pending, we are now taking final action on the fee-related proposals in the December 7, 2000 NPRM.

II. Discussion of Comments and Regulatory Changes

A. General

RSPA received approximately 20 written comments to the December 7, 2000 NPRM. The commenters included representatives of organizations and individuals engaged in all modes of transportation of hazardous materials, agricultural retailers, petroleum marketers and distributors, chemical manufacturers, and industry associations representing a broad spectrum of businesses that transport or offer for transport hazardous materials.

B. Reduction of Registration Fees

Commenters supported reduction of the registration fees. However, some commenters opposed certain aspects of RSPA's proposal. Some commenters stated that RSPA should return to a single flat fee system or eliminate the requirement that a person must register if it offers or transports a quantity of hazardous materials required to be placarded.

For example, the American Trucking Associations (ATA) stated that it supports ''the efforts of RSPA to adjust and refund registration fees in order to comply with statutory limits set forth in the HMTL,'' but it ''still disagree[s] with the need for a two-tiered registration fee.'' National Tank Truck Carriers (NTTC) also ''continues to believe that RSPA should reinstate a ''single fee'' system (as opposed to the proposed two-tiered structure).''

The Petroleum Marketers Association of America (PMAA) stated that RSPA ''should revise the registration criteria by temporarily eliminating the requirement that all persons who offer for transportation or transport hazardous materials required to be placarded be registered. However, if the agency will not eliminate this particular group of registrants from the fee requirement, PMAA believes that

temporarily reducing the registration fee for all persons required to register is the best solution in eliminating the unexpended balance.''

The Fertilizer Institute (TFI) suggested that ''RSPA consider capping the registration fee at $700 for other than small businesses, while leaving small business entities, minus the farm sector, at the current $250.'' TFI also urged RSPA to eliminate the registration requirement for a person who offers or transports hazardous materials that require placarding. TFI suggested that if RSPA insisted that all placarded loads require registration, then agricultural retailers and farm cooperatives should be specifically exempted from the registration requirement.

The Petroleum Transportation & Storage Association (PTSA) suggested that RSPA eliminate the administrative fee for all registrants and the registration fee for small cargo tanks under 3,500 gallons. PTSA urged RSPA ''to use the unexpended funds to eliminate the annual registration fee for these ultra small shippers.''

The National Propane Gas Association (NPGA) opposed the proposed reduction in the registration fees as being a ''disproportionate fee reduction for large businesses over small companies'' and adding additional confusion for companies trying to learn and comply with the registration requirements.

The International Sanitary Supply Association (ISSA) recommended that RSPA: (1) Eliminate the surplus over a four-year instead of a six-year period; (2) reduce the fees for small businesses to $150, and (3) reduce the fees for other than small businesses to $1,180.

On July 1, 2002, fifteen industry associations filed a lawsuit in the United States District Court for the District of Columbia asking for an order prohibiting RSPA from collecting any additional registration fees until RSPA adjusts the amount being collected to eliminate the unexpended surplus in the registration fee account. Counsel for plaintiffs in that lawsuit stated that 49 U.S.C. 5108(g)(2)(A) gives DOT the authority to go below the statutory minimum when it is trying to reduce any unexpended balance.

In the final rule (Docket No. HM–208C) we concluded that the registration program should: (1) Be simple, straightforward, and easily implemented and enforced; (2) employ an equity factor that reflects the differences between the risk imposed on the public by the business activities of large and small businesses; (3) ensure the adequacy of funding for the HMEP grants program; and (4) be consistent with the law. *See* 65 FR 7303. We found that the most appropriate way to meet these objectives was to expand the category of persons required to register to include all persons who offer for transportation or transport hazardous materials that require placarding (with a limited exception for farmers) and to adopt a two-tiered fee schedule under which persons meeting the SBA criteria for defining a small business would pay a lower fee than larger businesses.

For all the reasons discussed in the February 14, 2000 final rule, we still believe that the findings and conclusions discussed in that rule are justified and, as far as possible, should be followed in adjusting the registration fees to reduce the unexpended surplus in the HMEP grants fund. Therefore, we disagree with suggestions that we except from registration persons added in the 2000 final rule. The present system, using the placarding requirement as a primary determinant, is risk-based and facilitates enforcement—especially by State and local enforcement personnel.

The recommendation that the processing fee be eliminated and replaced by an increase in the grants fee for registrants that do not meet the SBA standards for a small business did not take into consideration that the costs of processing the registration statement are not expenses authorized to be paid from the grants account. The costs of administering the registration program are provided in the Department's annual budget authorizations from General Treasury funds—unlike the grants program expenses, which are statutorily authorized to be paid from the grants account. Although the separate statutory authority for the processing fee is permissive, it is the Department's understanding that this permissive authority reflects Congressional intent that the registration program costs be covered by collection of that fee.

When the NPRM was published in December 2000, we estimated that the unexpended balance in the grants fund was approximately $8.5 million (65 FR 76890, December 7, 2000). Since that time, two further collection cycles have occurred. The number of registrations received during a fiscal year (including registrations for prior years and fees paid in previous years for the current registration year) has remained constant at approximately 41,000, as has the percentage of registrants that have paid the larger business fee (approximately 15 percent). We currently estimate that, as of October 1, 2002, the unexpended balance in the grants fund was approximately $25 million.

Because of this increase in the unexpended balance, RSPA believes that it is necessary to adopt reductions in the registration fees that are even greater than originally proposed. Therefore, we are temporarily (for three years) reducing the registration fee for small businesses and non-profit organizations (regardless of their size) to $125 (plus a $25 processing fee) and for all other registrants to $275 (plus a $25 processing fee). RSPA is able to set the fee level for small businesses below the usual statutory minimum of $250 because the minimum (49 U.S.C. 5108(g)(2)(A)) is subject to the requirement (49 U.S.C. 5108(g)(2)(B)) that the Secretary adjust the amount being collected to reflect any unexpended balance.

Under this temporary fee system, we estimate that we will collect approximately $6.0 million each fiscal year, thus decreasing the grants fund balance by approximately $8.3 million a year. This estimate depends on the number of persons registering for the current and prior years remaining constant and the authorization for the HMEP grants program remaining constant at $14.3 million per year. At this rate of reduction, it will take about three years to deplete the surplus. Therefore, RSPA is temporarily reducing the registration fee for three years.

In the NPRM, we stated that we were not making a ''permanent'' change in registration fees because of uncertainty about the final registration numbers. We also stated that, within three years of the end of the proposed temporary six-year reduction in the registration fees, RSPA would reevaluate the registration fees. Because we have had three years under the new registration criteria and in order to ensure that no unnecessary surplus is created, we are now revising registration fee levels for the years after the period of temporary reduction.

Applying the objectives stated in Docket HM–208C, RSPA has determined that, beginning in registration year 2006–2007, small businesses and non-profit organizations (regardless of their size) should pay a registration fee of $250 (plus a $25 processing fee) and all other persons required to register should pay a registration fee of $975 (plus a $25 processing fee). Under this fee structure, we estimate that we will collect approximately $14.5 million per year.

We recognize that, depending on many factors that may vary over the years (including registrations received for prior years and unexpended grant obligations), it may take more or less than three years to deplete the current surplus. We also recognize that the fee structure that would go into effect with the 2006–2007 registration year may

need to be revised to avoid accumulating an unexpended balance. Consequently, RSPA will reevaluate the account balance and the fee levels, during the 2005–2006 registration year.

C. Not-for-Profit Organizations

We received comments in favor of and against the proposal to establish the registration fee for not-for-profit organizations at the same level as for small businesses. For example, ATA and PMAA supported the proposal to designate all not-for-profit organizations as small businesses. However, PMAA added that:

> The definition for a not-for-profit organization should be limited to 26 U.S.C. 501(c)(3) [because] many ''large businesses,'' including electric multistate cooperatives, are classified as not-for-profit organizations. To reduce their fee to the same level as the fee for small business would be unfair, since these particular organizations compete with many small businesses.

In contrast, IME and NPGA opposed this proposal. IME stated that ''RSPA compounds the error of a fee based on business size by suggesting that an organization's educational, religious, charitable and other similar purposes should also be factored into the determination of what is the appropriate contribution any registrant should make to the HMEPG.''

NPGA stated, ''DOT should limit its definition of non-profit organization solely to charitable organizations,'' and that, ''this provision will have the effect of providing a competitive advantage in the energy marketplace to rural electric cooperatives (RECs), many of which sell propane and therefore operate contrary to the purposes for which they were originally chartered.''

The SBA criteria for small business size standards apply to business entities organized for profit. 13 CFR 121.105(a). Therefore, non-profit organizations do not technically qualify as small businesses. After the February 14, 2000 final rule was adopted, RSPA applied SBA size criteria for appropriate SIC codes to non-profit organizations. However, nearly all of the not-for-profit organizations that are currently registered, which are mostly educational institutions and hospitals, exceed the SBA size standards for a small business.

To some extent, this may result from the SBA's focus on the characteristics of for-profit businesses in establishing the size standard for an industry group. In those infrequent instances where not-for-profit organizations constitute a significant portion of an industry group, the SBA may deliberately exclude the characteristics of not-for-profit organizations when considering the appropriate size standard. Because not-for-profit organizations generally are operated for educational, religious, charitable and other similar purposes, RSPA remains interested in helping them minimize their costs of operation and believes that, in so doing, we are following a precedent established by law in the exemption of such organizations from taxation.

We considered the comments recommending narrower criteria for not-for-profit organizations than proposed and concluded that our proposal remains the most straightforward resolution for dealing with entities that do not conform to SBA's criteria for a small business. To accept the PMAA's recommendation to limit the definition of not-for-profit organizations to those included in 26 U.S.C. 501(c)(3) or the NPGA's recommendation to limit the definition solely to ''charitable organizations'' would exclude organizations that the law exempts from taxation because of their non-profit status. We recognize that by providing a new fee category for not-for-profit organizations, some relatively large organizations may pay a reduced fee in the future, but RSPA considers the adoption of the proposed broader definition of not-for-profit organizations as defined by U.S. law to be more easily applied than any attempt to distinguish between types of non-profit organizations. Even though it seems unlikely that many registering organizations would be affected by the limitation of the definition to 26 U.S.C. 501(c)(3), we decided to retain the broader group included in 26 U.S.C. 501(a) and to adopt the proposal to establish a fee for all not-for-profit organizations at the same level as that for small businesses.

III. Refunds

In response to requests from industry, in the February 14, 2000 final rule (Docket No. HM–208C) RSPA amended the HMR to allow a person to register for up to three years in one registration statement. 49 CFR 107.612(c), 65 FR at 7309–10. Approximately 4,550 advance registrations for the 2003–2004 and 2004–2005 registration years have been received. Refunds will be provided for registrations paid in advance for those years at the higher fee levels in effect at the time of payment.

A letter will be sent approximately 45 days after the publication of this final rule to each registrant that, on that date, is due a refund for fees paid in advance for the 2003–2004 and 2004–2005 registration years. The letter will specify the amount of the refund and will be accompanied by a Form W–9, Request for Taxpayer Identification Number and Certification. The form must be submitted to RSPA before a refund can be made. Registrants that have submitted registrations including payment for the 2003–2004 and 2004–2005 registration years that do not receive a letter within this time frame should contact the registration office at 202–366–4109. Refunds will be made by checks issued by the U.S. Treasury after the Form W–9 is submitted. Persons who later pay in advance for the 2003–2004 and 2004–2005 registration years at the higher fee levels being reduced by this rule will be similarly contacted for the purpose of providing refunds for the overpayment.

Of the approximately 4,550 registrants due refunds, 4,250 small businesses will receive refunds of $150 (3,050) or $300 (1,200), and 300 others will receive refunds of $1,700 (200) or $3,400 (100).

IV. Rulemaking Analysis and Notices

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is considered a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, was subject to formal review by the Office of Management and Budget. This rule is considered significant under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034). RSPA has prepared a regulatory evaluation that is available for review in the public docket.

B. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (''Federalism''). The registration requirements do not impair the ability of States, local governments, or Indian tribes to impose their own fees or registration or permit requirements on persons who offer or transport hazardous materials in commerce. RSPA encourages States, local governments, and Indian tribes to adopt and enforce requirements in the HMR and the Federal registration requirement, in order to enhance compliance with a nationally uniform set of regulations on the transportation of hazardous materials.

The consultation and funding requirements of Executive Order 13132 do not apply because this rule does not adopt any regulation that:

(1) Has substantial direct effects on the States, the relationship between the National government and the States, or the distribution of power and

responsibilities among the various levels of government;

(2) Imposes substantial direct compliance costs on State and local governments; or

(3) Preempts State law.

C. Executive Order 13175

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13175 (''Consultation and Coordination with Indian Tribal Governments''). Because this rule does not have tribal implications, does not impose substantial direct compliance costs and is required by statute, the funding and consultation requirements of Executive Order 13175 do not apply.

D. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601–611) requires each agency to analyze regulations and assess their impact on small businesses and other small entities to determine whether the rule is expected to have a significant impact on a substantial number of small entities.

In the February 14, 2000 final rule in Docket No. HM–208C, RSPA certified that that final rule did affect a significant number of small entities, but that the economic impact on these small entities will not be significant. 65 FR 7308–09. This final rule affects the same small entities that Docket HM–208C did and, therefore, this final rule affects a significant number of small entities. 65 FR 7307–09. Although this final rule is providing a $150 reduction in the combined annual fee that small businesses must pay, that reduction does not constitute a significant economic impact on a substantial number of small entities. Therefore, RSPA certifies that this final rule does not have a significant economic impact on a substantial number of small entities.

E. Unfunded Mandates Reform Act of 1995

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $100 million or more, in the aggregate, to any of the following: State, local, or Native American tribal governments, or the private sector.

F. Paperwork Reduction Act

Under 49 U.S.C. 5108(i), reporting and recordkeeping requirements pertaining to the registration rule are specifically excepted from the information management requirements of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*).

G. Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321–4347) requires Federal agencies to consider the consequences of major federal actions and prepare a detailed statement on actions significantly affecting the quality of the human environment. There are no significant environmental impacts associated with this rule. The temporary reduction of registration fees will continue to fund the HMEP grants program at the level recommended by Congress, eliminate the surplus in a reasonable amount of time, and continue the balance of equity established under Docket HM–208C. In addition, this course of action will continue to fund the HMEP grants program on a basis that is equitable, straightforward, enforceable, and sound and will eliminate the surplus in the most expedient manner possible. It will also permanently set the registration fees for the years after the surplus is eliminated and will stop creation of any unnecessary surplus. Reduction in the registration fees or elimination of the current surplus in the registration fees fund has no potential for environmental damage or contamination.

H. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document may be used to cross-reference this action with the Unified Agenda.

List of Subjects in 49 CFR Part 107

Administrative practice and procedure, Hazardous materials transportation, Packaging and containers, Penalties, Reporting and recordkeeping requirements.

Issued in Washington, DC, on January 6, 2003, under authority delegated in 49 CFR Part 1.

Ellen G. Engleman,

Administrator.

DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

49 CFR Part 172

[Docket No. RSPA–02–12064 (HM–232)]

RIN 2137–AD67

Hazardous Materials: Security Requirements for Offerors and Transporters of Hazardous Materials

AGENCY: Research and Special Programs Administration (RSPA), DOT.

ACTION: Final rule.

SUMMARY: The Research and Special Programs Administration is establishing new requirements to enhance the security of hazardous materials transported in commerce. Shippers and carriers of certain highly hazardous materials must develop and implement security plans. In addition, all shippers and carriers of hazardous materials must assure that their employee training includes a security component.

EFFECTIVE DATE: This final rule is effective March 25, 2003.

FOR FURTHER INFORMATION CONTACT: Susan Gorsky, (202) 366–8553, Office of Hazardous Materials Standards, Research and Special Programs Administration.

SUPPLEMENTARY INFORMATION:

I. Background

On May 2, 2002, the Research and Special Programs Administration (RSPA, we) published a notice of proposed rulemaking (NPRM) to enhance the security of hazardous materials in transportation (67 FR 22028). Proposals for amending the Hazardous Materials Regulations (HMR; 49 CFR parts 171–180) included a requirement for motor carriers registered with the agency to maintain a copy of their current registration certificate on each motor vehicle. We further proposed to require shipping papers to include the name and address of the consignor and consignee and the shipper's DOT Hazmat Registration number, if applicable. In addition, we proposed to require shippers and carriers of certain highly hazardous materials to develop and implement security plans. We also proposed to require hazardous materials shippers and carriers to assure that their employee training includes a security component. The NPRM provided a 30-day comment period.

On May 23, 2002, in response to a number of requests, we extended the comment period for the NPRM an additional 30 days (67 FR 36138). The comment period closed July 3, 2002.

In addition, on July 16, 2002, RSPA and the Federal Motor Carrier Safety Administration (FMCSA) published an advance notice of proposed rulemaking (ANPRM) to examine the need for enhanced security requirements for hazardous materials transported by motor carriers (67 FR 46622). The two agencies are seeking comments on the feasibility of specific security enhancements and the potential costs and benefits of deploying such enhancements. Security measures addressed in the ANPRM include escorts, vehicle tracking and monitoring systems, emergency warning systems, remote shut-offs, direct short-range communications, notification to State and local authorities, and operational measures. The comment period for the ANPRM was extended until November 15, 2002. Late-filed comments will be considered to the extent feasible.

In this final rule, we are adopting the following revisions to the HMR to enhance the security of hazardous materials transported in commerce:

—Shippers and carriers subject to the registration requirements in 49 CFR part 107 or who offer or transport select agents and toxins regulated by the Centers for Disease Control and Prevention (CDC) must develop and implement security plans.

—Hazmat employers must provide security training to their hazmat employees. Hazmat employees of companies required to have a security plan under this final rule must be trained in the plan's specifics. All hazmat employees must receive training that provides an awareness of the security issues associated with hazardous materials transportation and possible methods to enhance transportation security. This training must also include a component covering how to recognize and respond to possible security threats.

When conducting inspections at shipper and other facilities, DOT inspectors will be looking for security plans and training records related to security. If violations are found, appropriate penalty action will be initiated. Baseline penalties for these violations will be provided in a civil penalty rulemaking that we expect to issue in the near future.

II. Analysis of Comments

We received over 270 comments on the May 3, 2002, NPRM from hazardous materials shippers, carriers, industry associations, and State and local government agencies. Commenters unanimously support the NPRM's goal of enhancing the secure transportation of hazardous materials. However, most commenters have significant concerns about some or all of the specific proposals in the NPRM. For example, some commenters suggest that the NPRM proposals do not provide an appropriate balance between security and economic goals. In addition, some commenters oppose some or all of the proposed security requirements because they would not have prevented the September 11, 2001, terrorist attacks. Several commenters also suggest that we should defer to the Transportation Security Administration (TSA) or the proposed Department of Homeland Security on security issues. Further, many commenters express reservations about the scope of the NPRM and the applicability of some of its provisions to most shipments of hazardous materials. As well, a significant proportion of commenters oppose some or all of the proposals concerning registration numbers and certificates, shipping documentation requirements, security plans, and security training. Finally, many commenters suggest that we seriously underestimated the potential cost impacts of the proposals in the NPRM. These comments are discussed in detail below.

A. Security Versus Economic Efficiency

Several commenters express concern that the NPRM proposals in the aggregate will result in unacceptable economic burdens on the industry and will adversely affect the efficiency with which hazardous materials are routinely transported. ''We also are concerned that the proposed measures will be expensive to implement and will introduce inefficiencies to the manner in which hazardous materials are transported. In responding to the events of September 11th, we must not compromise our ability to move large amounts of hazardous materials in an efficient, cost-effective manner. Introducing inefficiencies to our freight transportation system helps further the terrorists' goals of disrupting the American way of life.'' (American Trucking Associations)

As we stated in the NPRM, hazardous materials are essential to the economy of the United States and the well-being of its people. Our goal in this rulemaking is to implement security requirements that will be effective in preventing hazardous materials from being used as tools of destruction and terror while permitting continued transportation of these essential products. We applaud those in the industry who have recognized their responsibility for

enhanced security for the products they manufacture and transport and have developed and implemented thorough and detailed security programs. We do not agree that the imposition of prudent, common-sense security measures will cause massive disruptions in the movement of hazardous materials. We recognize that the provisions proposed in the NPRM and adopted, with modifications, in this final rule, will impose new costs of doing business on both hazardous materials shippers and carriers. As discussed in the following sections, in this final rule we revised certain proposals in response to comments on the NPRM to increase the effectiveness and reduce potential costs impacts of the new security provisions.

Several commenters note that the security measures proposed in the NPRM would not have prevented the September 11th terrorist attacks, the 1993 attack on the World Trade Center, or the 1995 attack on the Murrah Building in Oklahoma City. Nowhere in the NPRM do we state that the proposed security requirements would have prevented past attacks. Rather, we discussed the September 11th terrorist atrocities to indicate the heightened risk of terrorism with which we all now live and the need to reassess and address security vulnerabilities in all areas of our public and private lives. The discussion of the attack on the Murrah Building was intended as an illustration of the devastating consequences that can result from a criminal or terrorist act involving hazardous materials and to provide an estimate of the economic costs of such an act. We cannot limit our actions on security to efforts to prevent terrorist attacks that have already occurred. It is incumbent on everyone responsible for the safety and security of the United States to proactively assess future terrorist threats and take actions to try to prevent future attacks. We believe that the new requirements in this final rule will enhance the security of hazardous materials in transportation and, thus, help to deter and prevent terrorists from using hazardous materials in the transportation system as weapons of destruction or intimidation.

B. Security Authority

Some commenters question whether RSPA is the appropriate agency to issue transportation security regulations. These commenters suggest that the Transportation Security Agency (TSA) or the proposed Department of Homeland Security would be better suited to issue transportation security-related regulations. One commenter points out that TSA has been given the responsibility for security in all modes of transportation, and that TSA has been authorized to issue, rescind and revise such regulations as are necessary to carry out the functions of the Administration.

The HMR are promulgated under the mandate in § 5103(b) of Federal hazardous materials transportation law (Federal hazmat law; 49 U.S.C. 5101 *et seq*., as amended by § 1711 of the Homeland Security Act of 2002, Pub. L. 107–296) that the Secretary of Transportation ''prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce.'' Section 5103(b)(1)(B) provides that the HMR ''shall govern safety aspects, including security, of the transportation of hazardous material the Secretary considers appropriate.''

Hazardous materials shippers and carriers should be aware that this final rule is the first step in what may be a series of rulemakings to address the security of hazardous materials shipments. The joint RSPA–FMCSA ANPRM described above may result in one or more proposals to require specific security measures for hazardous materials that pose a significant security risk in transportation. In addition, TSA is developing regulations that are likely to impose additional requirements beyond those established in this final rule. We consult and coordinate with TSA concerning security-related hazardous materials transportation regulations and will continue to do so after TSA becomes part of the new Department of Homeland Security.

C. Industry Consensus Standards

One commenter suggests that we should work with the hazardous materials industry to develop consensus standards for hazardous materials transportation security. ''Instead of implementing its proposals, RSPA should hold one or more public meetings to solicit recommendations from shippers, carriers, and other members of the interested public as to security enhancements, and as to regulatory approaches, that will accomplish more, and do so more efficiently.'' (National Small Shipments Traffic Conference, Inc., and the Health and Personal Care Logistics Conference, Inc.) We appreciate this suggestion; indeed, we are aware that a number of industry associations have developed and disseminated recommendations for enhancing the security of hazardous materials and expect that they will form the basis for many individual company plans. However, we do not agree that a consensus-standards approach is appropriate for this rulemaking. Consensus standards generally are specification standards; that is, they set forth specific requirements for achieving a regulatory goal. One of the goals of this final rule is to establish a performance standard for hazardous materials transportation security plans. Performance standards generally permit a regulated entity to determine the specific measures necessary to achieve compliance with the established performance goal. In the case of hazardous materials transportation security, the flexibility provided by a performance standard permits a company to implement a security plan that is tailored to its specific circumstances and operations.

A consensus-standards process is a lengthy process. It can take many months or even years for the parties developing such a standard to reach consensus on the appropriate measures to be implemented. The security threat is real and ongoing. We do not have the time to spend on development of a consensus standard for hazardous materials transportation security.

D. Registration Certificates

Currently, each motor carrier transporting certain classes or divisions of hazardous materials is required to file with RSPA a registration statement and pay an annual fee (49 CFR part 107). A Certificate of Registration (certificate), which includes a U.S. DOT Hazmat Registration Number, is then issued by RSPA to the carrier. A carrier must display its registration number on a document carried on each motor vehicle, but need not maintain a copy of the certificate itself on each vehicle. The NPRM proposed to require each motor carrier registered with RSPA to maintain a copy of its current registration certificate on each motor vehicle used to transport hazardous materials. We suggested that the actual certificate could assist State and local law enforcement personnel to determine whether a carrier is a legitimate transporter of hazardous materials.

Commenters overwhelmingly oppose this proposal, primarily because the registration system as currently structured is not designed to make determinations as to the legitimacy of registrants. ''[A] valid registration certificate is no indication that a transporter is 'legitimate.' It is not an endorsement of regulatory compliance. It is simply proof of payment.'' (Institute of Makers of Explosives) Commenters also note that the registration system has no relevance to transportation security. ''[T]he act of registering and obtaining a DOT registration certificate and number * * * does nothing to ensure that the

registrant is not a potential risk to transport security. * * * In no case is any background investigation conducted before registering an applicant, or even investigation to ensure that the applicant is a bona fide company legitimately engaged in the offering for transport and/or transport of hazardous materials.'' (The Conference on the Safe Transportation of Hazardous Articles, Inc.) In addition, commenters suggest that a registration certificate can easily be copied or falsified. Even those commenters who support the proposal for motor carriers to maintain a copy of their registration certificates on transport vehicles state that the proposal will not enhance transportation security.

We have reconsidered this issue in light of the overwhelming opposition expressed by commenters to this proposal, and it is not adopted in this final rule. We agree with commenters that, absent significant changes to the current registration system, the mere presence of a registration certificate in a motor vehicle transporting hazardous materials will do little to enhance transportation security or to assist enforcement personnel to verify the legitimacy of hazardous materials carriers.

E. Shipping Papers

Currently, the HMR generally require each person who offers a hazardous material for transportation to describe the material on a shipping paper. However, there is no requirement for a shipping paper to include the name and address of the person offering the shipment or the person to whom the shipment will be delivered. The NPRM proposed to require each shipping paper to include the name of the shipment consignor and the address from which the shipment originates and the name and address of each person to whom the shipment will be delivered. In addition, we proposed to require each shipping paper to include the U.S. DOT Hazmat Registration Number, if applicable, of the person offering the shipment for transportation. The proposal was intended to assure that shipping papers included information to assist law enforcement personnel to promptly ascertain the legitimacy of hazardous materials shipments during routine or random roadside inspections and to identify suspicious or questionable situations where additional investigation may be necessary.

As with the proposal to require motor carriers to maintain copies of registration certificates in vehicles transporting hazardous materials, commenters overwhelmingly oppose the proposal to require shippers to include registration numbers on shipping papers. Commenters say that the registration program is not designed to determine whether shippers are ''legitimate'' and that the proposed requirement will not enhance shipment security. In addition, commenters suggest that a requirement to include registration numbers on shipping papers would be expensive to implement because many shippers would have to modify computer systems and shipping paper forms to include the new information. ''Configuring computer systems to provide new data on shipping documents will cause significant problems for shippers, carriers, freight forwarders, brokers, agents, and others. Available display fields are limited and companies will need to redirect their limited Information Technology (IT) resources to reprogram their information management systems.'' (Dangerous Goods Advisory Council) While we believe that commenters have overstated the costs that might be incurred to modify information systems to accommodate the proposed registration number requirement, we agree that the paperwork burden is not justified by the limited security benefits that might result. Therefore, the registration number proposal is not adopted in this final rule.

A number of commenters support the proposal to include the names and addresses of consignors and consignees on shipping papers. ''This provision, to include the name of the shipment consignor and the address of the person to whom the shipment will be delivered, is already widely in use by most companies that ship hazardous materials and therefore is readily acceptable.'' (Dow Chemical Company) Similarly, ''[i]ndustry routinely prepares thousands of shipping papers each year and the requirement that the addresses of the consignor and consignee appear on such documents should not pose a problem or burden.'' (Nuclear Energy Institute)

Other commenters, however, express serious reservations about the proposal to require consignor and consignee names and addresses on shipping papers. Most commenters question whether such a requirement would actually make it easier to identify suspicious shipments, as stated in the NPRM, without a system in place to verify the consignor and consignee information provided. ''Establishing the legitimacy of any consignor or consignee, and their respective addresses, requires knowledge and information not 'promptly ascertainable' from the roadside more than a thousand miles from the consignor and consignee as indicated in the shipping paper.'' (The Conference on the Safe Transportation of Hazardous Articles, Inc.) As well, commenters suggest that the proposal is unnecessarily broad and would apply to shipments of hazardous materials that pose little or no security threat. In addition, commenters say that, while the proposed requirement for consignor/consignee names and addresses on shipping papers may have some security benefit for motor carrier operations, it is not appropriate for all modes of transportation. Rail carriers, for example, suggest that the proposal would result in little or no security benefit for rail car transportation. ''Adding information to the shipping papers might be useful to a law enforcement officer stopping a truck on the highway * * * but would add nothing to rail security. * * * The carload rail network is a fixed network that serves only those shippers connecting to it. The identity and location of every rail car shipper is known and only specific destinations can be reached by rail. The security issues addressed by the proposed street address requirement are simply not present in rail transportation.'' (CSX Transportation)

Further, shippers and carriers of specific classes and types of materials cite operational difficulties that they say will make it difficult to comply with the proposed new requirement. Hazardous waste generators suggest that the proposed requirement to include consignor and consignee names and addresses on shipping papers is redundant for hazardous waste shipments because the EPA hazardous waste manifest already includes sufficient information for tracking hazardous wastes from origin to destination. Other commenters are concerned that the NPRM proposal concerning shipping papers did not consider the positive security implications of electronic tracking systems that are utilized by a number of shippers and carriers to monitor shipments. ''[There are] superior technology and tracking systems in place that not only track all shipments but also the vehicle or container used to transport the freight. Unfortunately, RSPA does not give indication that it has considered the advanced or enhanced security benefits gained from having such a system in place. RSPA should recognize and waive any proposed requirements for carriers and companies with these type information

systems in place * * * '' (FedEx Express)

Commenters representing shippers and carriers of hazardous materials used in agricultural applications note that many of the locations to which they deliver do not have street addresses, making it difficult to complete a shipping paper as proposed in the NPRM. ''[Agricultural retailers] often deliver their product to farm fields that don't have addresses, or to farms with rural addresses, and in some cases in one State, no addresses. * * * Many applicators intimately know the customer's fields they are delivering to and thus don't need addresses. Some use maps or air photos that show the fields or sections of fields that need the products applied.'' (Agricultural Retailers Association) Representatives of shippers and carriers of hazardous materials used at construction sites have similar concerns. Shippers and carriers of compressed gas cylinders used in medical care and heating oil, diesel fuel, propane, gasoline, and similar materials that use individual motor vehicles to deliver product to multiple locations point out that drivers frequently make changes to their delivery schedules or make emergency or unscheduled deliveries in the course of a single day, so that a shipping paper with a list of delivery locations completed in the morning would have to be significantly altered by the driver during the course of the day as his delivery schedule is modified. ''It is common practice to have multiple deliveries of fuel throughout the day. The shipment locations may be known for some deliveries, but there are numerous instances where the location of a particular delivery is not known until the truck has already begun its route. In other words, not every gallon of petroleum is accounted for when loaded at the bulk plant.'' (BOC Oil Company and others) Finally, shippers of so-called ''blind shipments'' of hazardous materials suggest that they would be adversely affected by the proposal. Blind shipments are transported under product trading transactions in which the receiving person is not provided information about the true origin of the shipments delivered to them and the shipper may not know the true destination of the shipment. ''Thousands of shipments are made from unnamed locations or from shippers acting as agents for suppliers who do not wish to be identified for business reasons. Perhaps an equal number of shipments are made to unnamed consignees. This NPRM would eliminate this practice resulting in the loss of millions of dollars in revenue annually for shippers with no increase in security.'' (Compressed Gas Association)

We do not agree with commenters that the proposed requirement for consignor and consignee names on shipping papers would provide little or no security benefit. In the absence of requirements for route plans or electronic tracking, the name and address of the shipment consignor and consignee can help law enforcement personnel determine whether a shipment has been unreasonably diverted and, thus, whether further investigation is warranted. However, having considered the adverse comments received on this proposal, we are not adopting it in this final rule. Instead, we are considering modified procedures for making consignor and consignee information available to law enforcement personnel. A modified procedure may be proposed in a future rulemaking. We note in this regard that the UN Recommendations on the Transport of Dangerous Goods require the name and address of both the shipment consignor and consignee to be included on shipping papers (chapter 5.4.1.3). A similar requirement is also in the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (chapter 4.1.6). Moreover, a provision to require the consignor and consignee name and address has been adopted by the International Maritime Organization for inclusion in Amendment 3.1 of the International Maritime Dangerous Goods Code. We also note that the U.S. Customs Service has issued a final rule to require consignor/consignee information on bills of lading for all cargoes entering the United States (67 FR 66318; October 31, 2002).

F. Security Plans

The NPRM proposed a new subpart I in part 172 to require persons subject to the registration requirements in subpart G of part 107 and persons who offer or transport select agents and toxins regulated by CDC in 42 CFR part 73 to develop and implement written security plans. Those persons required to register under subpart G of part 107 include persons who offer for transportation or transport: (1) A highway route-controlled quantity of a Class 7 (radioactive) material; (2) more than 25 kg (55 lbs) of a Division 1.1, 1.2, or 1.3 (explosive) material; (3) more than 1 L (1.06 qt) per package of a material poisonous by inhalation in Hazard Zone A; (4) a shipment in a bulk packaging with a capacity equal to or greater than 13,248 L (3,500 gal) for liquids or gases or greater than 13.24 cubic meters (468 cubic feet) for solids; (5) a shipment in a non-bulk packaging of 2,268 kg (5,000 pounds) gross weight or more of one class of hazardous materials for which placarding is required; and (6) a shipment that requires placarding. Select agents and toxins are materials regulated by CDC because they have the potential to pose a severe threat to the public health and safety. We suggested that a security plan should focus not only on the potential threats posed by the material being transported, but on personnel, facility, and en route security issues, as well. The NPRM did not include a prescriptive list of actions that must be included in a security plan. Rather, we proposed that a company should implement a plan that is appropriate to its individual circumstances, considering the types and amounts of hazardous materials shipped or transported and the modes used for transportation.

Commenters generally support the proposed requirement. However, commenters are concerned about certain details of the proposal. A major concern for many commenters is the language used in the NPRM to describe the security plan and its purpose. In the words of one commenter, ''The written plan requirement is too strongly worded. [We are] deeply concerned with much of the language in the security plan component of the NPRM. The purpose of any planning, whether for security or safety, is to reduce and mitigate risks. However, the NPRM as worded mandates 'assurance' of 100% risk-free operations. This is not possible.'' (National Propane Gas Association) Other commenters express similar reservations. ''The security plan should 'address' various subjects, but no requirement of the regulations should require that the plan 'assure' that unauthorized or unlawful actions will not take place. The word 'assure' has a strong legal content, and would serve to impose undue strict liability on anyone who had the misfortune to experience a security incident, no matter how unavoidable that incident was.'' (Sulfur Dioxide Mutual Assistance Response Team) We agree that the term ''assure,'' as used in the NPRM to describe the purposes and goals of a security plan, was inappropriate. No plan, no matter how comprehensive and detailed, can provide absolute assurance that each shipment of hazardous materials to which it applies will be transported without incident. In this final rule, we are modifying subpart I, as suggested by commenters, to more properly

characterize a security plan in terms of addressing and reducing security risks presented by the transportation of certain hazardous materials in commerce.

Related to the liability concern, commenters ask how the proposed security plan requirement would be enforced. ''Any measurement of a security plan would be entirely subjective. * * * If our products were somehow involved in a terrorist act, does this mean our security plan failed? And if so, what enforcement action will be taken?'' (Airgas, Inc.) Other commenters ask what standard will be used to determine whether security plans comply with regulatory requirements.

Each security plan will differ because each security plan will be based on a company's assessment of the security risks associated with the materials it ships or transports. There is no ''one-size-fits-all'' security plan that will be appropriate for each company's individual circumstances; similarly, there is no ''one-size-fits-all'' enforcement standard that can be applied to individual companies. We will examine a company's security plans, including the vulnerability assessment on which the security plan is based, as necessary to ascertain that a company has a plan in place, that it includes the components specified in this final rule, and that its personnel have been trained concerning the plan's specific components.

The fact that a product is used in a terrorist, criminal, or destructive action does not automatically mean that the security plan failed or that Federal security requirements are inadequate. A security plan should represent a company's best, good-faith effort to address identified security risks. However, plans must be updated as new information and technology become available. Compliance with Federal regulatory standards may constitute an effective defense in private litigation. However, failure to comply with those standards can be argued to constitute negligence.

Several commenters suggest that the requirement for security plans should be applied more narrowly than proposed in the NPRM. For example, shipments of bulk packagings that contain residues of certain hazardous materials must be placarded and, thus, would be subject to the proposed security plan requirement. Similarly, shipments of certain corrosive or flammable materials in Packing Groups II or III, such as institutional cleaning products, must be placarded in some circumstances and, thus, would be subject to the proposed security plan requirement. Commenters suggest that ''the requirement for an offeror or transporter to develop and implement a security plan should more appropriately be predicated upon the types (in terms of hazard) and/or quantities of hazardous materials offered or transported by the person, rather than on whether that person is required to register. * * * [S]ecurity plans should only be required for offerors and transporters of hazardous materials that have the potential to pose a significant threat from a security perspective if those hazardous materials were to fall into the wrong hands.'' (Conference on Safe Transportation of Hazardous Articles, Inc.) We agree that a requirement for security plans should apply only to those materials that present significant security threats. The registration and select agent and toxins lists cover the materials that present the most significant security threats in transportation and provide a relatively straightforward way to distinguish materials that may present a significant security threat from materials that do not. Further, the requirements for security plans proposed in the NPRM and adopted in this final rule permit a shipper or carrier to develop a security plan that assesses the specific security risks of the materials to be transported and put into place measures that are commensurate with the assessed risks. If a shipper or carrier determines that the security risks of the materials it handles are relatively small, then its security plan may well be limited in scope and complexity.

One commenter suggests that materials such as propane do not present a security risk sufficient to require development of shipper and carrier security plans. ''Propane has an excellent safety record both at the storage site and in transit. Propane's narrow range of flammability, its tendency to disperse rapidly if released, and the robust, Federally-regulated systems used to contain the product all support the assertion that propane should not be considered a weapon of mass destruction.'' (National Propane Gas Association) We disagree. Propane is among the liquefied compressed gases most commonly transported throughout the nation. When liquid propane is released into the atmosphere, it quickly vaporizes into the gaseous form that is its normal state at atmospheric pressure. This happens very rapidly, and in the process, the propane combines readily with air to form fuel-air mixtures that are ignitable over a range of 2.2 to 9.5 percent propane by volume. If an ignition source is present in the vicinity of a highly flammable mixture, the vapor cloud ignites and burns very rapidly (characterized by some experts as ''explosively''). Based on these characteristics and the frequency with which propane is transported in this country, we believe that propane presents a sufficient security risk to warrant the imposition of security plan and security training requirements.

Another commenter requests an exception from the proposed security plan requirements for petroleum marketer transporters ''given the already heightened level of security practiced by this unique branch of hazardous materials transporters.'' (Ohio Petroleum Marketers Association) In support of this request, the commenter cites regulations such as State fire codes, workers compensation laws, and Federal transportation safety laws ''that reduce the potential for certain hazardous materials to be targets for terrorists, and that maintain a high level of security awareness for hazardous materials employees.'' Again, we disagree. The regulations cited by the commenter are focused on safety, not security. Products transported by petroleum marketers, such as fuel oil and motor fuel, can potentially be used as weapons of opportunity or can be combined with other materials to construct weapons of mass destruction. Indeed, trucks loaded with petroleum products have been used in terrorist attacks on at least two occasions in recent months overseas. In addition, on June 21, 2002, the Federal Bureau of Investigation disclosed that it had information that terrorists using fuel tanker trucks might try to attack fuel depots or Jewish schools or synagogues. The warning was based on interviews with captured al Qaeda fighters and other sources. Therefore, we reject the requested exceptions.

A number of commenters note that, as drafted, the NPRM suggests that the proposed security plan requirements apply to every shipment offered for transportation or transported in commerce by a person required to register by subpart G of part 107. For example, one commenter says, ''A corporation subject to the hazmat registration requirements may easily have more than one facility—some of which might perform operations that would benefit from a security plan, others of which might not. It would be patently unreasonable to require each facility operated by the same corporation subject to hazmat registration requirements * * * develop and implement a security plan regardless of whether the particular facility transports hazardous materials

subject to those requirements.'' (Utility Solid Waste Activities Group) We agree. Our intention in the NPRM was for those shipments that are listed as triggering the registration requirements in subpart G of part 107 to be subject to security plan requirements, not for every shipment transported by a registered entity or every facility operated by a registered entity. This final rule clarifies that persons who offer for transportation or transport any of the materials listed in subpart G of part 107 or a select agent or toxin regulated by CDC must develop and adhere to security plans applicable to the listed materials.

The NPRM proposed that a security plan address the security of shipments stored incidental to movement in transportation. Several commenters are concerned about the applicability of the security plan requirement to persons that do not offer or transport hazardous materials in commerce, but who may operate facilities at which hazardous materials are stored during transportation. One commenter notes that ''[i]n many situations, HAZMAT are delivered to or through facilities operated by entities that are not subject to the security plan requirements because they may not be legally required to register.'' (Dangerous Goods Advisory Council) We agree that the final rule should clarify responsibility for security plans applicable to hazardous materials stored incidental to movement in transportation. Generally, these hazardous materials will be stored at a shipper or carrier-owned or -operated facilities, and the shipper or carrier will be responsible for developing a security plan. In this final rule, the requirement for developing and adhering to a security plan applies to persons who offer for transportation or transport hazardous materials in commerce, including loading, unloading, or storage operations incidental to the movement of hazardous materials in commerce.

Another commenter proposes that we adopt a definition for ''storage incidental to movement'' to distinguish storage that is part of transportation, and therefore subject to security plan requirements, from storage that is not part of transportation. For purposes of this final rule, storage incidental to movement of a hazardous material in commerce is storage that takes place between the time that a hazardous material is offered for transportation to a carrier and the time it reaches its destination. This definition is consistent with long-standing administrative determinations and letters of interpretation concerning the applicability of the HMR to materials stored incidental to their movement in commerce. We note in this regard that this agency is currently engaged in a rulemaking to clarify the applicability of the HMR to specific functions and activities, including storage of hazardous materials during transportation (HM–223; RSPA–98–4952). The NPRM issued under HM–223 proposed to define ''storage incidental to movement'' to mean ''storage of a transport vehicle, freight container, or package containing a hazardous material between the time that a carrier takes physical possession of the hazardous material for the purpose of transporting it until the package containing the hazardous material is delivered to the destination indicated on a shipping document, package marking, or other medium, or, in the case of a private motor carrier, between the time that a motor vehicle driver takes physical possession of the hazardous material for the purpose of transporting it until the driver relinquishes possession of the package containing the hazardous material at its destination and is no longer responsible for performing functions subject to the HMR.'' We are currently in the process of evaluating comments to the HM–223 NPRM. If a final rule issued under docket HM–223 revises the definition of ''storage incidental to movement'' in a way that affects the applicability to such storage of the security plan requirements in this final rule, we will address such revision, including its implications for security plans and any transition time necessary to implement changes, in the HM–223 final rule.

Most commenters support ''the flexibility RSPA provides in [the] proposal to regulated entities in how they go about meeting [the security plan] requirement.'' (National Association of Chemical Distributors) These commenters agree that ''the regulated community needs the flexibility to select those elements [of a security plan] that are consistent with their methods of operation.'' (Independent Fuel Terminal Operators Association) Other commenters, however, are concerned that the elements suggested in the NPRM for possible inclusion in a security plan are ''extremely general. In fact, they are so general as to be either unenforceable, or worse, subject to widely varying interpretations by field inspectors and adjudicators. The security plans and codes that have been developed by industry and are being further refined at the current time are far more specific and useful in addressing the security issues facing the various hazardous materials moving in commerce. If it is RSPA's purpose simply to require security plans for transporters and offerors without specifying the nature or content of those plans, [we] have no objection. If on the other hand, RSPA intends to somehow oversee the substance of such plans, the proposed requirements are too vague to be enforced.'' (The Chlorine Institute) Similarly, other commenters do not agree with the NPRM approach to list non-mandatory items in the regulatory text for security plans, such as the specific elements listed in the NPRM for possible inclusion in a security plan to address en route shipment security issues. These commenters suggest that recommendations should not be made part of regulatory text because of enforcement and liability concerns. Additionally, commenters are concerned that establishing specific requirements for security plans could be counter-productive. One commenter cites as an example the proposal in the NPRM that a security plan must include a process to verify information provided by job applicants. ''While a natural temptation would be to specify exactly the kind of checks to be applied, doing so would merely lay out a road map for the potential terrorist seeking employment with a carrier. If a check of X, Y, and Z is required, the terrorist organization will select operatives who can pass a check of X, Y, and Z, but perhaps not A or B. The essence of security is unpredictability—concept in conflict with regulatory precision.'' (CSX Transportation)

We carefully considered the comments offered concerning the security plan requirements proposed in the NPRM. We continue to believe that, if it is to be effective, a regulation mandating development and implementation of a security plan must provide sufficient flexibility so that a shipper or carrier can adapt its requirements to individual circumstances. Thus, the requirement for a security plan adopted in this final rule sets forth general requirements for a security plan's components rather than a prescriptive list of specific items that must be included. In this final rule, the proposed security plan requirements are modified as follows:

Applicability. The security plan requirement applies to persons who offer for transportation or transport in commerce one or more of the hazardous materials listed in subpart G of 49 CFR part 107 or a select agent or toxin regulated by CDC. The security plan requirement also applies to persons who operate facilities at which one or more

of the hazardous materials listed in subpart G of 49 CFR part 107 or select agent or toxin regulated by CDC is stored incidental to the movement of the hazardous material(s) in commerce. As indicated above, for purposes of this final rule, ''storage incidental to movement'' is storage that takes place between the time that a hazardous material is offered for transportation to a carrier and the time it reaches its destination. The security plan requirement applies only to shipments of the specified hazardous materials and to facilities at which the specified hazardous materials are prepared for transportation or stored during transportation.

Security plan components. A security plan must address risks related to the transportation of hazardous materials in commerce. Thus, this final rule requires persons subject to the security plan requirement to perform an assessment of the transportation security risks associated with the materials they handle. As we stated in the preamble to the NPRM, we have developed a security template to illustrate how risk management methodology can be used to identify points in the transportation process where security procedures should be enhanced within the context of an overall risk management strategy. The security template is posted on our website at *http://hazmat.dot.gov/rmsef.htm.* Other risk assessment tools are equally valid, however. This final rule does not require persons subject to the security plan requirement to use a specific risk assessment tool to meet the risk assessment requirement.

Using risk assessment methodology, a company will select an appropriate level of detail for its security plan based on the assessed risks identified for such material or materials. Factors that may be considered are the type or types of materials transported, the quantity of material transported, the area from or to which the material is shipped, and the mode of transportation used.

A security plan must include a method or methods for confirming information provided by applicants for jobs that involve access to or handling of the hazardous materials covered by the plan. In response to commenters' concerns, we revised this aspect of the security plan to substitute the term ''confirm'' for the term ''verify.'' Commenters are concerned that the standard implied by the term ''verify'' may be impossible to meet. In addition, this final rule requires employers to confirm information provided by job applicants who are hired to perform jobs that involve access to or handling of the hazardous materials covered by the plan. Read literally, the NPRM language would have required employers to confirm information provided by all job applicants.

Also in response to commenters, we have added language to indicate those persons to whom the requirement applies. Some commenters suggest that we should specify that the requirement applies to hazmat employees, as defined in § 171.8 of the HMR. We do not believe that this is necessary, although an employer may decide to include all hazmat employees. The requirement in this final rule is limited to applicants for hazmat employee positions that involve access to or handling of the hazardous materials covered by the security plan. We do not believe it necessary to include persons whose sole responsibility is preparing shipping documentation, for example, nor do we believe it necessary to include persons who manufacture, maintain, or requalify packagings.

We do not expect companies to confirm all of the information that a job applicant may provide as part of the application process. However, employers should make an effort to check information related to an applicant's recent employment history, references, and citizenship status. In short, we expect companies to take reasonable and prudent measures to address personnel security issues. In response to commenters, in this final rule we added a requirement that efforts to confirm information provided by job applicants must be consistent with applicable Federal and State laws concerning employment practices and individual privacy.

A security plan must also include methods to address the possibility that unauthorized persons may attempt to gain access to hazardous materials or transport vehicles being prepared for transportation. Some commenters suggest that we include a definition of ''unauthorized persons'' in this final rule. The term ''unauthorized persons'' as used in this final rule includes persons who are not employed by the company or members of the general public, unless such persons are specifically authorized by the company to have access to hazardous materials or transport vehicles being prepared for transportation. Beyond these persons, however, each entity to whom the security plan requirement applies will need to define the universe of unauthorized persons to account for the nature of the facility and the type of activity that takes place there. An unauthorized person is any person who is not authorized by the shipper or carrier to have access to hazardous materials or transport conveyances being prepared for transportation.

The third element of a security plan is a method or methods to address en route security risks. As noted above, commenters express a number of concerns about this provision of the NPRM. Many commenters address the shared responsibility of shippers and carriers for reducing security risks related to the transportation of hazardous materials in commerce. In particular, some commenters suggest that ''[r]esponsibility for the security of a shipment in transit should in the final analysis rest with the transporter. The shipper does not ultimately determine the routes for movement of cargo or the locations for incidental stops or storage. This responsibility appropriately rests with the carrier.'' (Boeing Company) Other commenters agree that en route security should primarily be the responsibility of the carrier. ''[T]o a great extent, shippers must rely on the carriers to generate en route security plans. This may mean that in some cases there would be two separate plans instead of a joint shipper and carrier plan. * * * [We] believe that shippers and carriers should have the flexibility to determine the best way to address en route security.'' (American Chemistry Council) Other commenters suggest that the proposal places ''too much emphasis on the shipper and recipient, and effectively absolves the transporter of responsibility for security. The carrier has control of the HM for the majority of any shipment, and should also bear the responsibility for ensuring an adequate safety plan and implementation of same.'' (CF Industries)

We agree that a hazardous materials transporter's security plan will address en route security issues in some detail. However, we do not agree that shippers need not address this aspect of transportation security. As one commenter suggests, ''[C]arrier 'security plans' must involve considerable input from the shipper community. It is the shipper who has best access to information relative to the hazardous properties of the commodity. It is the shipper who controls: Carrier selection and order entry; loading; time and method of dispatch; and, destination.'' (National Tank Truck Carriers) At the same time, we recognize that ''the carrier has the best information relative to the route taken and the security along that route. This includes driving time, route deviations, and rest stop selection.'' (American Chemistry Council) We expect shippers to work with carriers to address en route security risks of the materials covered

by their security plans. In some cases, a shipper and carrier may have a joint plan; in others, a shipper and carrier may have two separate security plans. This final rule provides shippers and carriers with the flexibility necessary to determine the best methods for addressing en route security issues.

A number of commenters object to the NPRM language that a security plan should include a system for verifying that a carrier has an on-going transportation security program. ''In effect, this aspect of the proposal would require that customers of carriers take an active role in ensuring that carriers are in compliance with the security plan requirements proposed by RSPA. In effect, RSPA is deputizing offerors of hazmat to police their carrier's compliance efforts.'' (International Sanitary Supply Association) We are not requiring shippers to compel compliance by carriers. At a minimum, however, a shipper should satisfy itself that the carrier that will be transporting its material has a security plan in place that adequately addresses the assessed security risks of the material to be transported, including risks related to storage of the material during transportation.

Relationship to other requirements. The NPRM included a provision permitting security plans that conform to regulations of other Federal or international agencies to be used to satisfy the requirement proposed for the HMR. All commenters support this provision. Several suggest that we specify that plans that conform to requirements of the Department of Defense or the Nuclear Regulatory Commission are acceptable. We do not think it is necessary to specifically list in the regulation Federal or international agencies that have now or may in the future impose security plan requirements on persons who handle hazardous materials. A security plan that conforms to regulations issued by any other Federal agency is acceptable, so long as it includes the requirements for security plans in this final rule. Other commenters request that we include plans developed by industry associations, such as the American Chemistry Council or the Association of American Railroads. Certainly, we expect that many companies will develop security plans using guidance and recommendations developed by the industry. In fact, we encourage companies to take advantage of existing guidance, model security plans, and the like when developing security plans tailored to their own operations. This includes industry-developed protocols or guidelines and recommendations issued by other Federal or international agencies. This provision is modified in this final rule to clarify that regulations, protocols, guidelines, or standards developed by other Federal agencies, international organizations, or industry are acceptable, provided such regulations or guidelines address the specific security vulnerabilities of the company.

We note in this regard that, while a security plan developed in conformance with regulations issued by another Federal agency may suffice to meet the requirements of this final rule, the reverse is not necessarily true. For example, air cargo security requirements promulgated by TSA are more stringent than the security requirements in this final rule. Similarly, requirements promulgated by NRC to address the transportation security of radioactive materials may be more stringent than the requirements in this final rule. Shippers and carriers should be aware that they may be subject to additional, more stringent security requirements promulgated by other Federal agencies, depending on the materials they transport and the mode of transportation.

Availability to the public. Several commenters express concern about the possibility that security plans may become publicly available. ''It is critical that carrier and shipper plans remain confidential; not subject to public disclosure and Freedom of Information Act requests.'' (CSX Transportation) Commenters are particularly concerned about plans that may be obtained by enforcement personnel during a compliance inspection.

Generally, RSPA will not collect or retain security plans. With regard to security plans, our enforcement focus during the compliance inspection is to ensure that companies have developed a security plan. Inspectors will review the existing plan on site and generally will not take copies with them or require companies to submit security plans.

In the rare instance that RSPA enforcement personnel identify a need to collect a copy of a security plan, or if a company voluntarily submits a copy of its security plan, we will analyze all applicable laws and Freedom of Information Act exemptions to determine whether the information or portions of information in the security plan can be withheld from release. Prior to submission of a security plan to DOT in these unusual instances, companies should follow the procedures described in 49 CFR 105.30 for requesting confidentiality. Under those procedures, a company should identify and mark the information it believes is confidential and explain why. We will then determine whether the information may be released or protected under the law.

Timing of implementation. Commenters are concerned that the final rule provide sufficient time for development and implementation of security plans. The NPRM did not specify a transition period. We agree that a transition period is necessary. Therefore, in this final rule, we provide persons subject to the security plan requirement 6 months from the effective date of the final rule to develop and implement security plans.

G. Training

The HMR currently require hazmat employees to be trained so they are: (1) Familiar with the general provisions of the HMR and can recognize and identify hazardous materials; (2) knowledgeable about specific HMR requirements applicable to functions performed; and (3) knowledgeable about emergency response information, self-protection measures, and accident prevention methods. A hazmat employee is one who directly affects hazardous materials transportation safety (§ 171.8). Hazmat employers must ensure that their hazmat employees are trained. For new employees, training must be completed within 90 days after employment or a change in job function. All hazmat employees must receive recurrent training every three years.

The safety training provided by hazmat employers may include the physical security of hazardous materials and ways to prevent vandalism and theft. However, such training may not be adequate to meet current threats. Because many hazardous materials transported in commerce may potentially be used as weapons of mass destruction or weapons of convenience, it is critical to the assurance of public safety that training for persons who offer and transport hazardous materials in commerce include a security component. Therefore, in the May 2, 2002 NPRM, we proposed to add a provision to § 172.704 to require the training of each hazmat employee to include a security component. We proposed that hazmat employees of persons required to have a security plan must be trained in the plan's specifics. In addition, we proposed that all hazmat employees must receive training that provides an awareness of the security issues associated with hazardous materials transportation and possible methods to enhance transportation security. As proposed in the NPRM, all hazmat employees would be required to

be trained within three months of issuance of a final rule.

Commenters generally support the proposal to require hazmat employee training to include a security component. However, commenters suggest that three months is not sufficient to implement and conduct training programs, particularly for hazmat employees of companies subject to the requirement for security plans. ARequiring security training for each hazmat employee within three months of the final rule effective date will be very difficult to implement. Once the requirements are published by DOT, companies will then be able to finalize development of their security training by combining components of the final rule with other requirement[s] of the hazmat employer's circumstances. Subsequently, training must be approved, disseminated within the company, trainers educated on the module's requirements, and hazmat employees scheduled for training.'' (Air Products) Some commenters suggest that security training should be required on a schedule consistent with current 3-year training cycles for hazmat employees. Others request implementation periods ranging from 6 months to one year.

We do not agree with commenters that development and implementation of transportation security awareness training will require a lengthy period for development and implementation. As we stated in the NPRM, to assist hazmat employers to meet any new security training requirements, we are developing a Hazardous Materials Transportation Security Awareness Training Module directed at law enforcement, industry, and hazmat personnel. Imminently, this training module will be available for distribution and use, free of charge. The module takes one hour to complete. This training module or similar training programs that may be developed by commercial vendors or hazmat employers will be sufficient to meet the security awareness training requirement in this final rule. However, we are sympathetic to the industry's concerns about the time required to complete training for all affected hazmat employees. Therefore, this final rule permits hazmat employers to provide security awareness training on the same 3-year schedule as other types of required hazmat training; thus, security awareness training must be provided an at employee's next scheduled retraining at or within the 3-year training cycle. However, we strongly encourage hazmat employers to provide security awareness training to hazmat employees on an accelerated schedule wherever possible.

We agree with commenters that 3 months from the effective date of a final rule does not provide sufficient time for training of hazmat employees by hazmat employers who are subject to the new requirement for security plans. However, once a security plan is implemented, we believe that employee training about its provisions should be completed no later than 3 months after the plan's implementation. Therefore, in this final rule, we are providing up to 9 months (6 months to develop and implement a security plan plus 3 months to train employees) for completion of training for these hazmat employees. As with the new requirement for security awareness training, it is not necessary to test or retain records concerning this new security plan training requirement until an employee's next scheduled retraining at or within the 3-year training cycle.

III. Regulatory Analyses and Notices

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is a significant regulatory action under Executive Order 12866 and the regulatory policies and procedures of the Department of Transportation (44 FR 11034) because of substantial public interest. The Office of Management and Budget reviewed this final rule.

Compliance costs resulting from this final rule are associated with the new requirements for certain shippers and carriers to implement security plans and for hazmat employee training to include a security component. An analysis of the costs and benefits of this final rule is included in the rulemaking docket. The cost-benefit analysis also addresses comments we received on the estimates included in the May 2, 2002 NPRM.

Costs. We estimate that companies subject to the security plan requirement in this final rule will incur first-year compliance costs totaling about $54.3 million to develop and implement security plans and subsequent-year costs totaling about $11 million/year for annual updates to the plans. Each security plan will be unique; thus, it is difficult to develop cost estimates for the measures that companies may implement to enhance hazardous materials transportation security. Ultimately, we expect each company to make reasonable decisions on measures it can take to improve security. Because companies will set security priorities and factor costs into their decisions, we believe the measures they choose will be cost-effective. Accordingly, we have not attempted separately to cost out or justify these actions as part of this rulemaking.

For the security training mandated in this final rule, we estimate that companies will incur first-year compliance costs totaling about $34 million, with subsequent-year costs totaling about $18 million/year for recurrent training.

Benefits. Safety benefits of regulatory changes frequently can be estimated with some degree of precision. Incident and accident history often provide a basis for estimating fatality, injury, property damage, environmental damage, and similar costs to society that can be avoided by the implementation of new requirements. Models can even estimate the costs to society of high consequence, low probability accidents. Benefit estimates can then be balanced against the estimated costs of new requirements to determine whether the changes are justified.

Estimating the security benefits of new requirements is much more challenging. Accident causation probabilities, based on previous accident histories and analysis, can be estimated in a way that the chances of a criminal or terrorist act cannot. Indeed, the threat of attack is virtually impossible to assess from a quantitative standpoint. That hazardous materials in transportation are a possible target of terrorism or sabotage is undeniable; the probability that hazardous materials in transportation will be targeted is, at best, a guess. Similarly, the projected outcome of a terrorist attack cannot be precisely estimated. Given a decision to attack the system, one must assume that choices will be made to maximize consequences and damage.

It is possible to envision scenarios where hazardous materials in transportation could be used to inflict hundreds or even thousands of fatalities. Direct costs and those attributable to transportation system disruption that would surely result could easily total in the billions of dollars. We are operating under the premise that, in today's environment, it is necessary to take reasonable measures to reduce the likelihood that such events will be successful. The presence of such measures should, in fact, help deter potential attacks. The provisions we are adopting have been crafted with this in mind.

If the measures adopted by this rule have the potential of reducing the likelihood of success of such an attack, we believe they are worthwhile. Moreover, the American public has an expectation that reasonable measures will be taken to help ensure the security

of chemicals and substances present in our society so that they are not used for nefarious purposes. We believe many, if not most, companies are taking or have already taken steps to develop systematic security plans and security awareness training. These requirements will help ensure a consistent approach in the area while permitting flexibilities that are important in keeping costs at reasonable levels.

In the end, when security measures are evaluated, an element of judgment is required to determine whether the costs of the measures are justified by the benefits that will accrue. We believe that the relatively small costs imposed on individual companies by the new security requirements in this final rule are more than offset by the potential benefits if there is a finite chance that these measures might avert a successful attack. The new requirements are not onerous. They are prudent, common-sense security measures that are in line with public expectations about the need to take action to protect hazardous materials shipments from terrorist acts.

B. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities unless the agency determines that a rule is not expected to have a significant impact on a substantial number of small entities. A complete analysis of the small business impacts of this final rule is available in the rulemaking docket. I hereby certify that, while the requirements in this final rule apply to a substantial number of small entities, there will not be a significant economic impact on those small entities.

C. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (''Federalism''). This final rule preempts State, local, and Indian tribe requirements but does not impose any regulation with substantial direct effects on the States, the relationship between the National government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

In the NPRM, we invited comments on whether, and to what extent, State or local governments or Indian tribes should be permitted to impose similar additional requirements to those proposed in the NPRM. Commenters who address this issue unanimously agree that State, local, or tribal governments should not be permitted to impose hazardous materials transportation security requirements that differ from or are in addition to those adopted in this final rule. We agree. Therefore, in the absence of a waiver of preemption by the Secretary under 49 U.S.C. 5125(e) or unless it is authorized by another Federal law, a hazardous materials transportation security requirement of a State, political subdivision of a State, or Indian tribe is explicitly preempted if: (1) Complying with a requirement of the State, political subdivision or Indian tribe and a requirement of this chapter or a regulation issued under this chapter is not possible; or (2) the requirement of the State, political subdivision, or Indian tribe, as applied or enforced, is an obstacle to accomplishing and carrying out this chapter or a regulation prescribed under this chapter.

D. Executive Order 13175

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13175 (''Consultation and Coordination with Indian Tribal Governments''). Because this final rule does not significantly or uniquely affect the communities of the Indian tribal governments and does not impose substantial direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply.

E. Unfunded Mandates Reform Act of 1995

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in annual costs of $100 million or more, in the aggregate, to any of the following: State, local, or Indian tribal governments, or the private sector. This rule is the least burdensome alternative to achieve the objective of the rule.

F. Paperwork Reduction Act

We submitted the information collection and recordkeeping requirements contained in this final rule to the Office of Management and Budget (OMB) for approval under the provisions of the Paperwork Reduction Act of 1995, section 1320.8(d). Title 5, Code of Federal Regulations requires us to provide interested members of the public and affected agencies an opportunity to comment on information collection and recordkeeping requests. Under the Paperwork Reduction Act, no person is required to respond to an information collection unless it has been approved by OMB and displays a valid OMB control number.

The May 2, 2002, NPRM included the following estimate for the information and recordkeeping burden resulting from the development and maintenance of security plans:

Hazardous Materials Security Plans

OMB No. 2137–xxxx

First Year Burden:
Total Annual Number of Respondents: 44,000.
Total Annual Responses: 44,000.
Total Annual Burden Hours: 880,000.
Total Annual Burden Cost: $26,400,000.

Subsequent Year Burden:
Total Annual Number of Respondents: 44,200.
Total Annual Responses: 44,200.
Total Annual Burden Hours: 48,000.
Total Annual Burden Cost: $1,440,000.

In the NPRM, we estimated that most companies would require about 20 hours to develop and implement a security plan conforming to the new regulatory requirements. This estimate was based on our understanding, confirmed by commenters to the NPRM, that many industry groups have developed guidance and model security plans for use by their members. Further, to assist persons to perform the risk management analysis required by this final rule, we designed a security template for the Risk Management Self-Evaluation Framework (RMSEF), developed to assist regulators, shippers, carriers, and emergency response personnel to examine their operations and consider how they assess and manage risk. The security template illustrates how risk management methodology can be used to identify points in the transportation process where security procedures should be enhanced within the context of an overall risk management strategy. Because of the widespread availability of tools to assist persons to develop and implement security plans, we concluded that the cost to an individual company to comply with the security plan requirement would average about $600 per affected entity.

Commenters who address security plan costs disagree with our conclusion. For example, one commenter estimates that, ''[f]or the 6000 (15% of the total registrants) large HAZMAT registrants, [we] estimate that it will take a minimum of 200 hours to develop a comprehensive security plan (estimated cost for the 6000 registrants: $100 per hour x 200 hours = $120 million).'' (Dangerous Goods Advisory Council) Other commenters offered similar cost estimates.

As commenters themselves point out, a number of industry associations have developed guidelines and model security plans that can be readily adapted to meet a company=s individual circumstances, thereby reducing individual company costs. Indeed, on June 5, 2002, the American Chemistry Council (ACC) made enhanced security activities mandatory for its members, to help assure the public that all member facilities are involved in making their neighbors and America more secure. The ACC Board approved a new Security Code under Responsible Care®, the industry's initiative for improving performance, that consists of increased specific commitments to further safeguard chemical operations from potential terrorist attacks. The Security Code includes measures to enhance chemical transportation security. Over 200 chemical companies are ACC members; in addition, nearly 40 industry associations are Responsible Care® Partner Associations.

Further, the Association of American Railroads has developed a ''comprehensive Terrorism Risk Analysis and Security Management Plan. The industry formed a security task force * * * Outside consultants with expertise in intelligence and counter-terrorism were retained to provide advice on best practices. * * * The task force undertook a comprehensive risk analysis which identified critical assets, vulnerabilities, and threats, and assessed the overall risk to people, national security, and the nation's economy. The task force then proceeded to identify over fifty countermeasures. The Terrorism Risk Analysis and Security Management Plan * * * is now in effect. * * *'' The Association of American Railroads includes 14 Class I railroads and 10 non-Class I railroads.

Many companies will not need to perform sophisticated analyses or develop complicated security plans in order to comply with the new requirement. Companies that only occasionally transport one of the hazardous materials to which the security plan requirement applies may be able to utilize one of the off-the-shelf security manuals now being marketed by several vendors. These manuals include information and guidelines that assist companies to identify and address areas of concern, including concerns related to personnel safety and security, site security, en route security, and training. One such security manual sells for $165, with regular updates available under an annual subscription costing about $80.

Because there is such a wealth of information and assistance available to companies subject to the security plan requirements of this final rule, we do not agree with commenters who suggest that our cost estimate for developing hazardous materials transportation security plans in the May 2 NPRM was ''greatly under-estimated.'' Actual per-company costs will vary, depending on the nature of the materials transported and the size and complexity of a company's operations. We estimate that the time necessary to develop a security plan will range between our initial estimate of 20 hours per company and the industry estimate of 200 hours per company. For purposes of this analysis, we believe that, on average, a large company, using information available from RSPA, industry associations, or vendors, will require about 50 hours to develop a security plan that meets the requirements of this final rule. A smaller company, on average, will require about 25 hours to develop a security plan that meets the requirements of this final rule. Using Bureau of Labor Statistics information on employee compensation (March 2001), we estimate that the cost per hour of developing a security plan is $45.00 (one professional plus one administrative support staff). Thus, for the large companies subject to the security plan requirements of this final rule, we estimate that the costs to develop a security plan will total $14,512,500 (6,450 large entities × 50 hours/entity × $45/hour) or $2,250 per entity. For the small companies subject to the security plan requirements of this final rule, we estimate that the costs to develop a security plan will total $41,118,750 (36,550 small entities × 25 hours/entity × $45/hour) or $1,125 per entity.

This final rule requires companies to update security plans as necessary to account for changing circumstances. We expect that most companies will update their security plans at least once a year. We estimate the hours required to update a security plan will average 10 hours for a large company and 5 hours for a small entity. Thus, for large companies, we estimate the costs to update a security plan will total $2,902,500/year (6,450 large entities × 10 hours/entity × $45/hour), or $450 per entity. For small companies, we estimate the costs to update a security plan will total $8,223,650/year (36,550 small entities × 5 hours/entity × $45/hour), or $225 per entity.

Our revised estimate of the information collection and recordkeeping burden related to the security plan requirements in this final rule is shown below. This new information collection, ''Hazardous Materials Security Plans'', will be assigned an OMB control number after review and approval by OMB. We estimate that the new total information collection and recordkeeping burden resulting from the development and maintenance of security plans under this rule is as follows.

Hazardous Materials Security Plans

OMB No. 2137–xxxx

First Year Annual Burden:
Total Annual Number of Respondents: 42,000.
Total Annual Responses: 42,000.
Total Annual Burden Hours: 1,207,500.
Total Annual Burden Cost: $54,337,500.

Subsequent Year Burden:
Total Annual Number of Respondents: 42,200.
Total Annual Responses: 42,200.
Total Annual Burden Hours: 247,250.
Total Annual Burden Cost: $11,126,250.

Requests for a copy of this information collection should be directed to Deborah Boothe, Office of Hazardous Materials Standards (DHM–10), Research and Special Programs Administration, Room 8422, 400 Seventh Street, SW., Washington, DC 20590–0001. Telephone (202) 366–8553. We will publish a notice advising interested parties of the OMB control number for this information collection when assigned by OMB.

G. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

H. Environmental Assessment

There are no significant environmental impacts associated with this final rule. An environmental assessment is available in the docket for this rulemaking.

List of Subjects in 49 CFR Part 172

Hazardous materials transportation, Hazardous waste, Labeling, Packaging and containers, Reporting and recordkeeping requirements.

Issued in Washington DC on March 19, 2003, under authority delegated in 49 CFR part 1.

Ellen G. Engleman,

Administrator, Research and Special Programs Administration.

DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

49 CFR Parts 171, 172, 173, 175, 176, 178 and 180

[Docket No. RSPA–2002–13658 (HM–215E)]

RIN 2137–AD41

Harmonization With the United Nations Recommendations, International Maritime Dangerous Goods Code, and International Civil Aviation Organization's Technical Instructions

AGENCY: Research and Special Programs Administration (RSPA), DOT.

ACTION: Final rule.

SUMMARY: RPSA is amending the Hazardous Materials Regulations (HMR) to maintain alignment with international standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations and vessel stowage requirements. Because of recent changes to the International Maritime Dangerous Goods Code (IMDG Code), the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions), and the United Nations Recommendations on the Transport of Dangerous Goods (UN Recommendations), these revisions are necessary to facilitate the transport of hazardous materials in international commerce.

DATES: *Effective Date:* The effective date of these amendments is October 1, 2003.

Voluntary Compliance Date: RSPA is authorizing immediate voluntary compliance. However, RSPA may further revise this rule as a result of appeals it may receive for this rule.

Delayed Compliance Date: Unless otherwise specified, compliance with the amendments adopted in this final rule is mandatory October 1, 2004.

Incorporation by Reference Date: The incorporation by reference of the publication adopted in § 171.7 of this final rule has been approved by the Director of the Federal Register as of October 1, 2003.

FOR FURTHER INFORMATION CONTACT: Joan McIntyre, Office of Hazardous Materials Standards, telephone (202) 366–8553, or Shane Kelley, International Standards, telephone (202) 366–0656, Research and Special Programs Administration, U.S. Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590–0001.

SUPPLEMENTARY INFORMATION:

I. Background

On December 3, 2002, the Research and Special Programs Administration (RSPA, we) published a notice of proposed rulemaking (NPRM) (67 FR 72034) under Docket HM–215E. The NPRM proposed changing the Hazardous Materials Regulations (HMR), 49 CFR parts 171–180, to align it with updates and revisions to the UN Recommendations, the IMDG Code and the ICAO Technical Instructions with respect to hazard communication, classification, and packaging requirements. Our intent was to facilitate the international transportation of hazardous materials by ensuring a basic consistency between the HMR and international standards, while at the same time ensuring the safe transportation of hazardous materials.

On January 8, 2003, we published a final rule under Docket HM–215E (68 FR 1013) authorizing the use of the 2003–2004 edition of the ICAO Technical Instructions, Amendment 31 to the IMDG Code, and the twelfth revised edition of the UN Recommendations beginning January 1, 2003, the effective date of the international standards.

The UN Recommendations are not regulations, but rather are recommendations issued by the UN Committee of Experts on the Transport of Dangerous Goods. These recommendations are amended and updated biennially by the UN Committee of Experts. They serve as the basis for National, regional, and international modal regulations; specifically, the IMDG Code developed by the International Maritime Organization (IMO) Dangerous Goods, Solid Cargoes and Containers Subcommittee, and the ICAO Technical Instructions developed by the ICAO Dangerous Goods Panel. Subject to certain conditions and limitations, § 171.12 of the HMR authorizes domestic transportation of hazardous materials shipments prepared in accordance with the IMDG Code if all or part of the transportation is by vessel. Subject to certain conditions and limitations, § 171.11 of the HMR authorizes the offering, acceptance and transport of hazardous materials by aircraft, and by motor vehicle either before or after being transported by aircraft, provided the shipment is in accordance with the ICAO Technical Instructions.

On December 21, 1990, RSPA published a final rule (Docket HM–181; 55 FR 52402) based on the UN Recommendations, which comprehensively revised the HMR for harmonization with international standards. Since publication of the 1990 final rule, we have issued four additional international harmonization final rules (Dockets HM–215A, 59 FR 67390; HM–215B, 62 FR 24690; HM–215C, 64 FR 10742; and HM–215D, 66 FR 33316). The rules provided additional harmonization with international transportation requirements by more fully aligning the HMR with the corresponding biennial updates of the UN Recommendations, the IMDG Code and the ICAO Technical Instructions.

The large volume of hazardous materials transported in international commerce warrants the harmonization of domestic and international requirements to the greatest extent possible. Harmonization serves to facilitate international transportation, reduces cost to industry, and ensures the safety of people, property and the environment. While the intent of the harmonization rulemakings is to align the HMR with international standards, we review and consider each amendment on its own merit. Each amendment is considered on the basis of the overall impact on transportation safety and the economic implications associated with its adoption into the HMR. Our goal is to harmonize without sacrificing the current HMR level of safety and without imposing undue burdens on the regulated public. In our efforts to continue to align the HMR with international requirements, this final rule makes changes to the HMR based on the twelfth revised edition of the UN Recommendations, Amendment 31 to the IMDG Code, and the 2003–2004 ICAO Technical Instructions, which became effective January 1, 2003. Petitions for rulemaking concerning harmonization with international standards and the facilitation of international transportation are also addressed in this final rule and serve as the basis of certain amendments. Other amendments are based on feedback from the regulated industry, other DOT modal administrations and our initiative. Also included are various editorial clarifications. Unless otherwise stated, the revisions are for harmonization with international standards.

Various commenters raised issues that are beyond the scope of this rulemaking. Such issues will not be addressed in this final rule and must first be addressed in an NPRM to afford industry and the public opportunity to comment.

II. Overview of Changes in this Final Rule

Amendments to the HMR in This final rule include, but are not limited to the following:

- Amendments to the Hazardous Materials Table (HMT) which add, revise or remove certain proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, bulk packaging requirements, passenger and cargo aircraft maximum quantity limitations and vessel stowage provisions.
- Amendments to the List of Marine Pollutants.
- Revisions and additions of special provisions. Included is the addition of a special provision for assignment to aerosol entries setting forth the criteria for classifying aerosols.
- Addition of a requirement to enter the subsidiary hazard class or subsidiary division number on shipping papers.
- Addition of a requirement to indicate the number and types of packagings on shipping papers.
- Addition of an alternative basic description sequence on shipping papers.
- Revision of marking requirements for limited quantities.
- Addition of an air eligibility marking requirement.
- Revision of requirements in § 173.27 for packagings intended for transportation by aircraft, including revision of requirements for use of absorbent material for such packagings.
- Revision to the classification of air bag modules, air bag inflators and seat-belt pretensioners from Division 2.2 to Class 9.
- Revision of the non-liquefied and liquefied compressed gases descriptions, and the addition of high pressure and low pressure liquefied gases categories.
- Revisions and additions to the Self-Reactive Materials Table.
- Revisions and additions to the Organic Peroxide Table.
- Revision of the net weight restrictions for explosives in freight containers exceeding 20 ft (6 m) in length.

III. Summary of Regulatory Changes by Section

Part 171

Section 171.6. We are revising the table in paragraph (b)(2) to incorporate a new information collection, OMB No. 2137–0613, ''Subsidiary Hazard Class and Number/Type of Packagings,'' and the affected sections, §§ 172.202 and 172.203.

Section 171.7. We are adding Regulation 19 of an IMO standard titled ''International Convention for the Safety of Life at Sea,'' 1974, as amended, Chapter II–2. Regulation 19 is incorporated into a new paragraph (f) in § 176.63 to address hatchless container ship requirements.

Section 171.8. In the definition for ''Large packaging,'' we are adding the words ''Chapter 6.6'' to let readers know the location in the UN Recommendations for the construction, testing and marking of such packagings.

Section 171.11. We are revising paragraphs (c), (d)(5) and (d)(17) to address certain limitations for the use of the ICAO Technical Instructions.

In paragraph (c), for hazardous materials being transported in accordance with the ICAO Technical Instructions, the restrictions for the use of the Instructions are revised to include hazardous materials that are forbidden by passenger and cargo aircraft, as designated in Columns (9A) and (9B) of the § 172.101 HMT. Prior to this revision, the paragraph restricted materials that are forbidden according to § 173.21 and Column (3) of the HMT only.

In paragraph (d)(5), we are removing the wording ''except for Division 2.2'' relating to shipping paper requirements for air bag inflators, air bag modules and seat-belt pretensioners. This amendment is consistent with the removal of the Division 2.2 air bag inflator, air bag module and seat-belt pretensioner entry in the HMT (see § 172.101).

Paragraph (d)(17) is revised to clarify the current requirement that, in addition to organic peroxides, self-reactive substances not specifically identified by name in § 173.224(b) also must be approved by the Associate Administrator in accordance with the requirements in § 173.124(a)(2)(iii).

Section 171.12. We are revising paragraphs (b)(3), (b)(19), and (b)(20).

In paragraph (b)(3), we are removing certain viscous flammable liquids as an example of a material designated as a hazardous material subject to the HMR, but not subject to the IMDG Code. The IMO removed the exception in Amendment 31 to the IMDG Code.

In paragraph (b)(19), we are removing the wording ''except for Division 2.2'' relating to shipping paper requirements for air bag inflators, air bag modules and seat-belt pretensioners. This revision is consistent with the removal of the Division 2.2 air bag inflator, air bag module and seat-belt pretensioner entry in the HMT (see § 172.101).

In paragraph (b)(20), we are clarifying the current requirement that, in addition to organic peroxides, self-reactive substances not specifically identified by name in § 173.224(b) must also be approved by the Associate Administrator in accordance with the requirements in § 173.124(a)(2)(iii).

For the readers' information, recently adopted amendments to the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended, will require mandatory of the use of the IMDG Code effective January 1, 2004. This issue will be addressed under a separate rulemaking.

Section 171.12a. We are revising paragraph (b)(18) to clarify the existing requirement that, in addition to organic peroxides, self-reactive substances not specifically identified by name in § 173.224(b) also must be approved by the Associate Administrator in accordance with the requirements in § 173.124(a)(2)(iii).

Section 171.14. We are revising paragraphs (d), (d)(1), (d)(2), (d)(4), and (d)(5). We received several comments concerning the proposed transitional provisions. Several commenters requested that we implement an overall two-year transition period from the October 1, 2003 effective date, and several commenters requested an overall three-year transition period. In the NPRM, we proposed a mandatory compliance date of October 1, 2004.

While we do not agree that all amendments require an additional extended compliance date, we do agree that certain amendments warrant the additional time. We are, therefore, authorizing an October 1, 2007 mandatory compliance date for the new requirement in § 172.202(a)(5) to include the number and types of packagings on shipping papers. This requirement was identified by commenters as requiring additional time to offset any associated burden. Additionally, we are adopting an October 1, 2007 transition date for modifications to package markings that will change as a result of changes to certain proper shipping names. We are also adopting an October 1, 2005 compliance date for use of proper shipping names that did not identify specific isomers by numbers or letters preceding the chemical name. Finally, we are authorizing an October 1, 2005 mandatory compliance date for the requirement to include the subsidiary hazard class or division number on shipping papers.

We are revising paragraphs (d) and (d)(1) to authorize an October 1, 2004 implementation date for the amendments in this final rule.

We are revising paragraph (d)(2) to authorize certain intermixing of old and new requirements until October 1, 2004.

We are revising paragraph (d)(4) to allow until June 1, 2010, DOT

Specification 51 portable tanks to conform with the T Codes (Special Provisions) in effect on September 30, 2001.

We are revising paragraph (d)(5) to allow proper shipping names that included the word ''inhibited'' prior to the June 21, 2001 final rule, to continue to be shown on packagings and shipping papers in place of the word ''stabilized'' until October 1, 2007. Additionally, the October 1, 2007 date applies to the proper shipping names in this final rule that are revised by removing the word ''compressed'' (see § 172.101, HMT).

Paragraph (d)(6) authorizes use of the shipping paper requirement to include the total quantity of packages on shipping papers until October 1, 2007.

Paragraph (d)(7) authorizes use of the non-mandatory provision to include the subsidiary hazard class or division number on shipping papers until October 1, 2005.

Paragraph (d)(8) authorizes the marking of certain other proper shipping names on packagings until October 1, 2005. The proper shipping names are those that are revised to include the position identifiers of the substituents, such as 2-Ethylbutyl acetate (see § 172.101, HMT preamble discussion).

Part 172

Section 172.101. In the regulatory text preceding the Hazardous Materials Table, the following changes are made:

Paragraph (c)(15) is revised by removing the words ''of inorganic substances.'' Prior to this revision, unless a hydrate was specifically listed in the HMT, only hydrates of inorganic substances were authorized to be identified using the proper shipping name for the equivalent anhydrous substance, provided the hydrates met the same hazard class, division, subsidiary risk(s) and packaging group. With the removal of the phrase ''of inorganic substances,'' paragraph (c)(15) applies to all hydrates.

Section 172.101 Hazardous Materials Table (HMT). We are making various amendments to the HMT. Readers should review all changes for a complete understanding of the Table amendments. For purposes of the Government Printing Office's typesetting procedures, changes to the HMT will appear under three sections of the Table, ''remove,'' ''add'' and ''revise.'' Certain entries in the HMT, such as those with revisions to the proper shipping names, will appear as a ''remove'' and ''add.'' Amendments to the HMT for the purpose of harmonizing with international standards, unless otherwise stated, include, but are not limited to the following:

- ''*Accumulators, pressurized, pneumatic or hydraulic (containing non-flammable gas), see* Articles, pressurized, pneumatic *or* hydraulic (*containing non-flammable gas*)'' is added as a ''see'' entry into the HMT to aid the reader in locating the updated entry. This action is based on feedback we received from users of the HMR after we removed the domestic entry (''Accumulators, pressurized, pneumatic,'' UN1956), as well as certain other domestic entries from the HMT in a final rule, HM–215D (66 FR 33316), published June 21, 2001. The entries were removed because we determined that they were no longer necessary considering the HMT already includes equally appropriate international entries. (Also see § 173.306(f) for a related editorial revision.)
- ''Air bag inflators, compressed gas *or* Air bag modules, compressed gas *or* Seat-belt pretensioners, compressed gas,'' Division 2.2, UN3353 is removed. All air bag inflators, air bag modules and seat-belt pretensioners currently classified as Division 2.2 may be reclassified as Class 9. We are also incorporating into the HMR a provision to allow this reclassification without further testing (see § 173.166). In line with the removal of this entry, Special Provision 133 is also removed. We are aware that removal of the UN3353 entry will require repackaging, remarking and relabeling of all compressed gas air bag assemblies. We received a comment from the North American Automotive Hazmat Action Committee (NAAHAC) expressing this concern; however, the NAAHAC stated that the proposed mandatory compliance date of October 1, 2004, would be sufficient time to implement the new requirements. We also believe that the mandatory compliance date of October 1, 2004, and the transitional provisions in § 171.14(d)(2), authorizing certain intermixing of old and new requirements, will offer sufficient time and flexibility to implement the new requirements and reduce the costs of meeting this requirement.
- ''Air bag inflators, *pyrotechnic* or Air bag modules, *pyrotechnic or* Seat-belt pretensioner, *pyrotechnic*'' UN0503, Division 1.4G, is amended by removing the word ''pyrotechnic'' from the proper shipping names in Column (2), revising Columns (8A) and (8C) to read ''None,'' revising Column (8B) to read ''§ 173.62'' (also see § 173.62), adding new Special Provision 161 (see § 172.102), and revising the vessel stowage columns (10A) and (10B). We are adding Special Provision 161 because we believe that a more appropriate name is ''Articles, pyrotechnic *for technical purposes,*'' UN0431. We believe that an article meeting the criteria for Division 1.4G should be considered a pyrotechnic article and not an air bag. We received a comment from NAAHAC supporting this revision and stating that if an inflator does not pass the UN Recommendations' Series 6 test criteria, it is considered a pyrotechnic article and not an airbag. (Also see Special Provision 161.)
- ''Air bag inflators, *pyrotechnic* or Air bag modules, *pyrotechnic or* Seat-belt pretensioner, *pyrotechnic,*'' UN3268, Class 9, is amended by removing the descriptive word ''pyrotechnic'' and adding new Special Provision 160 (see § 172.102). NAAHAC requested that we retain the word ''pyrotechnic'' as a descriptive word in the shipping name to provide time for depletion of existing inventories. Although we are removing the word ''pyrotechnic'' in this rulemaking, we believe that extending the mandatory compliance date from October 1, 2004, as proposed in the NPRM, to October 1, 2005, as adopted in this final rule (see § 173.166(d)(5)), will provide the necessary time requested by the commenters.
- ''Ammonium nitrate, *with not more than 0.2% combustible substances, including any organic substance calculated as carbon to the exclusion of any other added substance,*'' UN1942 is amended by editorially correcting the italicized portion of the proper shipping name by adding the word ''total'' after ''0.2%.''
- ''Ammonium nitrate fertilizers,'' UN2071, and ''Ammonium nitrate fertilizers,'' UN2067 are amended by removing the italicized portion of the proper shipping names, adding new Special Provision 150 to the UN2067 entry, and revising Special Provision 132 which applies to the UN2071 entry (see § 172.102 for Special Provision amendments).
- ''Ammonium nitrate fertilizers,'' NA2072 and ''Ammonium nitrate mixed fertilizers,'' NA2069 are removed. We believe that the international entry ''Ammonium nitrate fertilizers,'' UN2067 can be used in place of the domestic entries, which do not provide any additional exceptions.
- A new entry, ''Ammonium nitrate emulsion *or* Ammonium nitrate suspension *or* Ammonium nitrate gel, *intermediate for blasting explosives*,'' UN3375 (also see § 172.102, Special Provisions 52 and 147) is added.
- For the entry ''Calcium hypochlorite, hydrated *or* Calcium hypochlorite, hydrated mixtures, *with*

not less than 5.5 percent but not more than 10 percent water,'' UN2880, the wording ''*not more than 10 percent water*'' is revised to read ''*not more than 16 percent water*.''

• Four proper shipping names are revised by adding the position identifiers of the substituents. The proper shipping names are ''Diethylaminopropylamine,'' position identifier ''3'; ''Dimethylcyclohexylamine,'' position identifiers ''N,N'; ''Ethylbutyl acetate,'' position identifier ''2''; ''Propyl chloride'' which is replaced by ''1-Chloropropane,'' and ''Tetrachloroethane,'' position identifiers ''1,1,2,2,''. Also, see § 171.14(d)(6) for the continued use provision of these proper shipping names.

• The entry ''Hydrazine hydrate *or* Hydrazine aqueous solutions, *with not less than 37 percent but not more than 64 percent hydrazine, by mass*,'' UN2030 and ''Hydrazine, anhydrous *or* Hydrazine aqueous solutions *with more than 64 percent hydrazine, by mass*,'' UN2029 are removed and ''Hydrazine aqueous solution, *with more than 37% hydrazine, by mass*,'' UN2030 and ''Hydrazine, anhydrous,'' UN2029'' are added.

• Eleven entries are revised by removing the qualifying word ''compressed.'' This action is consistent with the revisions to proper shipping names for compressed and liquefied gases that were incorporated into the Twelfth Edition of the UN Recommendations and which we are adopting into the HMR (see § 173.115 for additional discussion). The eleven entries are ''Boron trifluoride, compressed,'' UN1008; ''Carbonyl fluoride, compressed,'' UN2417; ''Diborane, compressed,'' UN1911; ''Ethylene, compressed,'' UN1962; ''Hexafluoroethane, compressed *or* Refrigerant gas R 116,'' UN2193; ''Nitrogen trifluoride, compressed,'' UN2451; ''Phosphorus pentafluoride, compressed,'' UN2198; ''Silane, compressed,'' UN2203; ''Silicon tetrafluoride, compressed,'' UN1859; ''Tetrafluoromethane, compressed *or* Refrigerant gas R 14,'' UN1982; and ''Xenon, compressed,'' UN2036. Also, see § 171.14(d)(6) for the continued use provision of these proper shipping names.

• For the proper shipping name ''Lighters *or* Lighter refills *cigarettes, containing flammable gas*,'' UN1057, the word ''cigarettes'' is removed.

• The proper shipping name ''Lithium hydroxide, monohydrate *or* Lithium hydroxide, solid,'' UN2680 is revised to read ''Lithium hydroxide.''

• For the entry ''Medicine, liquid, toxic, n.o.s.,'' UN1851, we are adding Special Provision 36. The special provision, which limits the maximum net quantity per package to 5 L (1 gal) for liquids and 5 kg (11 lbs) for solids, is currently assigned to ''Medicine, liquid, flammable, toxic, n.o.s.,'' UN3248 and ''Medicine, solid, toxic, n.o.s.,'' UN3249.

• For the entry ''Motor fuel anti-knock mixtures,'' UN1649, we are removing the subsidiary risk hazard from the labeling requirement, and adding new Special Provision 151. This action is based on a petition for rulemaking (P–1420) we received (see discussion under § 172.102).

• The proper shipping name ''Uranium nitrate hexahydrate solution,'' UN2980 is corrected by replacing the word ''Uranium'' with ''Uranyl.'' The typographical error occurred in the April 3, 2002 document published in the **Federal Register** (67 FR 15736).

• The entry ''Xylidines, solution,'' UN1711 is revised to read ''Xylidines, liquid.''

• In addition to those entries identified above, we are adding the following new entries: ''Chlorosilanes, toxic, corrosive, n.o.s.,'' UN3361; ''Chlorosilanes, toxic, corrosive, flammable, n.o.s.,'' UN3362; ''Ethylene glycol diethyl ether,'' UN1153; ''Fibers, animal *or* fibers, vegetable *burnt, wet or damp*,'' UN1372; ''Fibers, vegetable, dry,'' UN3360; ''4-Nitrophenylhydrazine, *with not less than 30% water, by mass*,'' UN3376; ''Organometallic compound, solid, water-reactive, flammable, n.o.s.,'' UN3372; ''Rags, oily,'' UN1856; ''Rubber scrap *or* Rubber shoddy, *powdered or granulated, not exceeding 840 microns and rubber content exceeding 45%*,'' UN1345; ''Sodium dinitro-o-cresolate, wetted, *with not less than 10% water by mass*,'' UN3369; ''Textile waste, wet,'' UN1857; ''Trinitrobenzene, wetted, *with not less than 10% water by mass*,'' UN3367; ''Trinitrobenzoic acid, wetted, *with not less than 10% water by mass*,'' UN3368; ''Trinitrochlorobenzene (picryl chloride), wetted, *with not less than 10% water by mass*,'' UN3365; ''Trinitrophenol (picric acid), wetted, *with not less than 10% water by mass*,'' UN3364; ''Trinitrotoluene (TNT), wetted, *with not less than 10% water by mass*,'' UN3366 and ''Wool waste, wet,'' UN1387.

• Various entries are amended by revising the vessel stowage columns (10A) and/or (10B). The entries include the following: the five ''Aerosols,'' UN1950 entries; ''Ammunition, smoke *with or without burster, expelling charge or propelling charge*,'' UN0303; ''Battery fluid, alkali,'' UN2797; ''Methacrylic acid, stabilized,'' UN2531; ''Sulfur, molten,'' UN2448; and ''Urea, nitrate, *wetted with not less than 20 percent water, by mass*,'' UN1357.

Also, see § 172.102 for additional HMT amendments.

Appendix B to § 172.101. In Appendix B to § 172.101, List of Marine Pollutants, we are revising paragraphs ''4'' and ''5'' to update the location in the IMDG Code for the ''Guidelines for the Identification of Harmful Substances in Packaged Form.'' This update is based on the IMDG Code's change in location from the General Introduction to Chapter 2.10.

In addition, we are removing the entries ''Alkylphenols, liquid, n.o.s. *(including C2–C12 homologues)*,'' ''Alkylphenols, solid, n.o.s. *(including C2–C12 homologues)*,'' ''Chlorophenols, liquid,'' and ''Chlorophenols, solid,'' from the List of Marine Pollutants. We are revising the entry ''Alkylbenzenesulphonates, branched and straight chain'' by adding a qualifying phrase to clarify that C11-C13 straight chain or branched chain homologues are not regulated as marine pollutants. Finally, we are adding the entry ''Decyl acrylate.''

Section 172.102. We are amending § 172.102, Special Provisions, as follows:

• Special Provisions 7 and 10 are removed. These special provisions are assigned to the entries ''Ammonium nitrate mixed fertilizers,'' NA2069 and ''Ammonium nitrate fertilizers,'' NA2072, respectively, which we are removing (see § 172.101, HMT).

• Special Provision 15, which is assigned to ''Chemical kits,'' UN3316 and ''First aid kits,'' UN3316, is revised for consistency with packagings authorized for limited quantity exceptions. We are also relocating the authorized packagings to § 173.161. Revised Special Provision 15 specifies (1) which chemical and first aid kits are properly described by the entries; (2) that materials forbidden by air may not be included in the kits when they are transported by air; and (3) that kits carried on board transport vehicles for first aid or operating purposes are not subject to the HMR.

• Special Provision 30 is revised to include an exception from the placarding requirements for ''Sulfur, molten'' UN2448 and ''Sulfur,'' UN1350. Prior to this change, the domestic entries ''Sulfur, molten,'' NA2448 and ''Sulfur,'' NA1350 did not require placards because both entries are Class 9 materials and meet the placarding exceptions for the hazard

class in § 172.504(f)(9). Revised Special Provision 30 provides the same placarding exceptions for the international entries provided the bulk packagings are marked in accordance with § 172.325.

• Special Provision 52 is editorially revised by removing the wording specific to fertilizers. The special provision, which is currently applied to ''Ammonium nitrate fertilizers,'' UN2067, is added to the new entry ''Ammonium nitrate emulsion *or* Ammonium nitrate suspension *or* Ammonium nitrate gel, *intermediate for blasting explosives,*'' UN3375. The special provision states that a material using the assigned entries may not exhibit explosive properties of Class 1 (explosive) when tested in accordance with the UN Manual of Tests and Criteria, Part I, Test Series 1 and 2.

• Special Provision 130, which excepts dry batteries from the HMR, is revised by adding a requirement that such batteries must be securely packed and protected against short circuits and by clarifying that dry batteries specifically named in the § 172.101 Table are not eligible for the exception.

• Special Provision 132 is revised to add the criteria for use of this special provision. The special provision is added to the revised entry ''Ammonium nitrate,'' UN2071, Class 9.

• Special Provision 133 is removed. This special provision was assigned to the entry ''Air bag inflators, compressed gas *or* Air bag modules, compressed gas *or* Seat-belt pretensioners, compressed gas'' UN3353, Division 2.2, which is removed from the HMT by this final rule (see discussion under § 172.101, HMT.)

• Existing Special Provision 134 is revised to include vehicles powered by lithium batteries. This revision is based on comments from Argonne National Laboratories and the Conference on Safe Transportation of Hazardous Articles.

• New Special Provision 145 is added to the existing entry ''Hydrogen peroxide and peroxyacetic acids mixtures, stabilized, *with acids, water and not more than 5 percent peroxyacetic acid,*'' UN3149. The special provision describes the formulations for which this entry apply.

• New Special Provision 146 is added to the entries ''Environmentally hazardous substances, liquid, n.o.s.,'' UN3082 and ''Environmentally hazardous substances, solid, n.o.s.,'' UN3077 to clarify that the entries may be used to describe a material that poses a hazard to the environment if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination, even if it is not an environmentally hazardous substance under the HMR.

• New Special Provision 147 is added to the new entry, ''Ammonium nitrate emulsion *or* Suspension *or* Gel, *intermediate for blasting explosives,*'' UN3375. The special provision describes the composition of the material for which the use of the entry is authorized and prohibits the material from being classified and transported unless approved by the Associate Administrator.

• New Special Provision 149 is added to the Packing Group II entries for 13 existing proper shipping names. The special provision allows the maximum net capacity for inner packagings to be increased to no more than 5 L (1.3 gal) when the material is transported as a limited quantity. The National Paint and Coatings Association (NPCA) supports the increase for inner packagings, stating that the potential for errors will be greatly reduced by allowing the same quantity limits for PG II and PG III materials. However, NPCA, along with the Association of Hazmat Shippers and PPG Industries, requests that we clarify that the special provision is applicable to consumer commodities as well as limited quantities. We revised the special provision accordingly. The 13 entries are: ''Adhesives, *containing a flammable liquid,*'' UN1133; ''Coating solution *(includes surface treatments or coatings used for industrial or other purposes such as vehicle undercoating, drum or barrel lining),*'' UN1139; ''Extracts, aromatic, liquid,'' UN1169; ''Extracts, flavoring, liquid,'' UN1197; ''Printing ink, *flammable or* Printing ink related material *(including printing ink thinning or reducing compound), flammable,*'' UN1210; ''Paint *including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler, and liquid lacquer base,*'' UN1263; ''Paint related material *including paint thinning, drying, removing, or reducing compound,*'' UN1263; ''Perfumery products *with flammable solvents,*'' UN1266; ''Rubber solution,'' UN1287; ''Wood preservatives, liquid,'' UN1306; ''Resin solution, *flammable,*'' UN1866; ''Tars, liquid *including road asphalt and oils, bitumen and cut backs,*'' UN1999; and ''Polyester resin kit,'' UN3269 for Packing Group II resin kits as specified in Special Provision 40.

• New Special Provision 150 is added to the entry ''Ammonium nitrate based fertilizer,'' UN2067 to authorize the use of the entry for uniform mixtures containing ammonium nitrate as the main ingredient within certain composition limits.

• New Special Provision 151 is added to the new entry ''Hydrazine aqueous solution, *with more than 37% hydrazine, by mass*'' UN2030, Packing Group I and to the existing entry ''Motor fuel anti-knock mixtures,'' UN1649. This special provision requires a packaging containing a material meeting the definition of a flammable liquid to display a FLAMMABLE LIQUID label, and it requires a Class 3 subsidiary hazard to be shown on shipping papers.

With regard to the entry ''Motor fuel anti-knock mixtures,'' UN1649, as discussed in the NPRM, we received a petition for rulemaking (P–1420) requesting that we remove the flammable subsidiary risk for this entry. The petitioner stated that the international standards do not assign the entry a flammable subsidiary risk and that the inconsistency with the HMR causes a regulatory compliance burden when transporting the material internationally. The petitioner stated that removing the subsidiary risk is additionally justified because motor fuel anti-knock mixtures containing tetramethyl lead, with fire points greater than 54 °C (129.2 °F), are no longer manufactured or transported. Although the UN Recommendations, the ICAO Technical Instructions and the IMDG Code do not assign a flammable subsidiary risk to the entry, all three standards assign a special provision stating that mixtures with a flashpoint of less than 60.5 °C (141 °F) must bear a flammable liquid subsidiary risk label. We are removing the flammable subsidiary risk from the label requirements in Column (6) of the HMT for ''Motor fuel anti-knock mixtures,'' UN1649 and adding a new Special Provision 151 to require a FLAMMABLE LIQUID subsidiary label only when the mixtures have a flashpoint of less than 60.5 °C (140.9 °F). Also, see preamble text under the § 172.101 Table changes.

• New Special Provision 153 is added to the five ''Aerosols,'' UN1950 entries to provide the criteria for classifying aerosols.

• New Special Provision 155 is added to two entries, ''Fish meal, stabilized *or* Fish scrap, stabilized,'' UN2216 and ''Fish meal, unstabilized *or* Fish scrap, unstabilized,'' UN1374. The special provision specifies that the fish scrap or fish meal may not be transported if the temperature of fish scrap at the time of loading either exceeds 35 °C (95 °F), or exceeds 5 °C (41 °F) above the ambient temperature, whichever is higher. Also see § 173.218 for additional discussion.

• New Special Provision 156 is added to three entries, ''Blue asbestos (*Crocidolite*) or Brown asbestos (*amosite, mysorite*),'' UN2212, ''White

asbestos (*chrysotile, actinolite, anthophyllite, tremolite*),'' UN2590, and ''Asbestos,'' NA2212. The special provision provides an exception from the HMR for certain asbestos. Prior to this change, the exception was located in § 173.216(b) and excepted asbestos immersed or fixed in a natural or artificial binder material and asbestos contained in manufactured products. Before the development of the HM–215E NPRM, we received comments that § 173.216 was not an appropriate location for this exception because it is referenced in the non-bulk column of the HMT, leading readers to believe that the exception applies to non-bulk packagings only. To clarify that this exception applies to both non-bulk and bulk packagings, we are moving the exception from § 173.216(b) to new Special Provision 156.

• New Special Provision 157 is added to the entries ''Vehicle, flammable gas powered,'' and ''Vehicle, flammable liquid powered,'' each of which is assigned to UN3166. The new special provision specifies that the entries include hybrid electric vehicles powered by both internal combustion engines and wet, sodium or lithium batteries. NAAHAC agrees with the adoption of Special Provision 157, and requests that we clarify whether we are addressing all wet batteries. We do intend for the entries ''Vehicle, flammable gas powered'' and ''Vehicle, flammable liquid powered,'' and Special Provision 157 to apply to all wet batteries. While we are not aware of any hybrid vehicles that utilize wet batteries as a source of propulsion power, we included the reference in order to provide flexibility to encompass all wet batteries contained in the vehicle.

• New Special Provision 159 is added to the entry ''5-tert-Butyl-2,4,6-trinitro-m-xylene *or* Musk Xylene,'' UN2956. The special provision requires this material to be protected from direct sunshine and kept in a cool, well-ventilated place away from sources of heat.

• New Special Provision 160 is added to the entry ''Air bag inflators, *or* Air bag modules, *or* Seat-belt pretensioner,'' UN3268, Class 9. The special provision includes the requirement that air bag inflators and modules must be tested in accordance with Test series 6 (c) of Part I of the UN Manual of Tests and Criteria, and also includes an exception from testing air bag modules that contain an inflator that has been previously approved for transportation. We received a comment from NAAHAC supporting adoption of this special provision.

• New Special Provision 161 is added to the entry ''Air bag inflators, *pyrotechnic or* Air bag modules, *pyrotechnic or* Seat-belt pretensioners, *pyrotechnic,*'' UN0503, Division 1.4G. One commenter stated that the addition of this special provision poses an unnecessary burden for international shippers by requiring the use of the proper shipping name, ''Articles, pyrotechnic *for technical purposes,*'' UN0431. Special Provision 161 applies only to domestic shipments. Shipments offered and transported in accordance with the provisions of §§ 171.11 and 171.12 are not subject to this special provision. The special provision specifies that the UN0503 entry may not be used for domestic shipments and that the more appropriate description is ''Articles, pyrotechnic *for technical purposes,*'' UN0431. We believe that describing articles meeting the Class 1.4G criteria as air bags is misleading and may cause confusion for emergency responders. The wording ''or seat belt pretensioners'' was inadvertently omitted from the NPRM's regulatory text and is added in this final rule. Also, see § 172.102, HMT, which includes the amendment to remove the italicized word ''pyrotechnic'' from the UN0503 entry.

• New Special Provision 162 is added to eight new entries and two existing entries. The Special Provision authorizes the material to be transported under the provisions of Division 4.1, only if it is packed so that at no time during transport will the percentage of diluent fall below the percentage that is specified in the proper shipping name. The new entries are ''4-Nitrophenylhydrazine, *with not less than 30% water, by mass,*'' UN3376; ''Sodium dinitro-o-cresolate, wetted, *with not less than 10% water by mass,*'' UN3369; ''Trinitrobenzene, wetted, *with not less than 10% water by mass,*'' UN3367; ''Trinitrobenzoic acid, wetted, with not less than 10% water by mass, UN3368; ''Trinitrochlorobenzene (picryl chloride), wetted, *with not less than 10% water by mass,*'' UN3365; ''Trinitrophenol (picric acid), wetted, with not less than 10% water by mass,'' UN3364; ''Trinitrotoluene (TNT), wetted, *with not less than 10% water by mass,*'' UN3366; and ''Urea nitrate, wetted, *with not less than 10% water by mass,*'' UN3370. The two existing entries are ''Barium azide, wetted *with not less than 50 percent water, by mass,*'' UN1571 and ''Dipicryl sulfide, wetted *with not less than 10 percent water, by mass,*'' UN2852.

• New Special Provisions A54 and A55 are added to address certain requirements for the transportation of lithium batteries by aircraft. Special Provision A54 provides for an approval provision that authorizes lithium batteries and lithium batteries contained in equipment or packed with equipment to exceed the quantity limits as specified in Column (9B) of the HMT when transported by cargo aircraft, if approved by the Associate Administrator. Based on a comment we received from the Portable Rechargeable Battery Association (PRBA) stating that we did not take into account large lithium batteries contained in equipment, we are increasing the quantity in the HMT for lithium batteries contained in equipment from 5 kg to 35 kg for consistency with the maximum quantity per package specified for lithium batteries packed with equipment. Additional comments submitted by PRBA are beyond the scope of this rulemaking. Special Provision A55 provides for an approval provision to authorize prototype batteries to be transported by cargo aircraft, if approved by the Associate Administrator. We are assigning Special Provisions A54 and A55 to the entries ''Lithium battery,'' UN3090, ''Lithium batteries, contained in equipment,'' UN3091 and ''Lithium batteries packed with equipment,'' UN3091.

• New Special Provision A56 is added to address the air transport of radioactive material with subsidiary hazards of Division 4.2, PG I, and Divisions 2.1 or 2.3. Division 4.2, PG I subsidiary hazard materials are authorized for transportation by aircraft in Type B packagings only. Materials with a 2.1 subsidiary hazard are prohibited from transport aboard passenger aircraft. The special provision is in alignment with the ICAO Technical Instruction's Special Provision A78, with regard to radioactive materials with Division 2.1 subsidiary hazard but not the Division 4.2, PG I packaging requirement or the Division 2.3 subsidiary hazard approval provision. New Special Provision A56 includes Division 4.2, PG I because we believe it was inadvertently omitted in ICAO's Special Provision A78, and we understand that steps are being taken to address the matter with the ICAO Dangerous Goods Panel. See the § 172.101 HMT in the regulatory text of this rule for specific entries.

• Special Provision IB3 is revised by excepting ''Ammonia solutions, *relative density between 0.880 and 0.957 at 15 degrees C in water, with more than 10 percent but not more than 35 percent ammonia*,'' UN2672 from the Special Provision's ''Additional Requirement'' that authorizes liquids with a vapor pressure less than or equal to 110 kPa

at 50 °C (1.1 bar at 122 °F), or 130 kPa at 55 °C (1.3 bar at 131 °F). New Special Provision IP8 is also added to the UN2672 entry.

• Special Provision IB52 (Table 2) is revised by adding additional packaging authorizations for certain entries and correcting various typographical errors. The entry ''Dicumyl peroxide,'' UN3110 is corrected by adding ''2000'' as the maximum quantity in liters. In addition, we are moving the approval provision for formulations not covered in Special Provision IB52 to § 173.225(e)(5). Section 173.225(e) currently contains an approval provision for portable tanks, and we believe this paragraph is a more appropriate location for the IB52 approval provision.

• New Special Provision IP8 (Table 3) is added to the existing entry ''Ammonia solutions, *relative density between 0.880 and 0.957 at 15 degrees C in water, with more than 10 percent but not more than 35 percent ammonia,*'' UN2672 (see Special Provision IB3). We received a comment from the Industrial Packaging Alliance of North America supporting this addition. The special provision authorizes ammonia solutions to be transported in rigid or composite plastic intermediate bulk containers (IBCs) (31H1, 31H2 and 31HZ1), if the rigid plastic and composite IBCs have successfully passed, without leakage or permanent deformation, the hydrostatic test specified in § 178.814 at a test pressure that is not less than 1.5 times the vapor pressure of the contents at 55 °C (131 °F).

• New Special Provision N83 is added to the new entry ''Urea nitrate, wetted, *with not less than 10% water by mass,*'' UN3370. This special provision limits the quantity of this material to no more than 11.5 kg (25.4 lbs) per package.

• New Special Provision N84 is added to six new entries and one existing entry. The special provision limits the quantity per package to no more than 500 g (1.1 lbs.). The six new entries are: ''Trinitrophenol (picric acid), wetted, *with not less than 10% water by mass,*'' UN3364; Trinitrochlorobenzene (picryl chloride), wetted, *with not less than 10% water by mass,*'' UN3365; ''Trinitrotoluene (TNT), wetted *with not less than 10% water by mass,*'' UN3366; ''Trinitrobenzene, wetted, *with not less than 10% water by mass,*'' UN3367; ''Trinitrobenzoic acid, wetted, *with not less than 10% water by mass,*'' UN3368; and Sodium Dinitro-o-cresolate, wetted, *with not less than 10% water by mass,*'' UN3369. The existing entry is Dipicryl sulfide, wetted *with not less than 10 percent water, by mass,*'' UN2852.

• New Special Provision N85 is added to two existing entries, ''Isosorbide dinitrate mixture *with not less than 60 percent lactose, mannose, starch or calcium hydrogen phosphate,*'' UN2907 and ''Pentaerythrite tetranitrate mixture, desensitized, solid, n.o.s. *with more than 10 percent but not more than 20 percent PETN, by mass,*'' UN3344. The special provision prohibits the material from being transported in packagings conforming to the requirements of Part 178 of the HMR at the Packing Group I performance level. This action addresses over-confinement hazards associated with these materials by prohibiting the use of packagings meeting the Packing Group I performance criteria.

• Special Provision T23 is revised to correct typographical errors for the entries ''tert-Butyl peroxyacetate, not more than 32% in diluent type B'' and ''tert-Butyl peroxypivalate, not more than 27% in diluent type B.'' The word ''tyupe'' is corrected to read ''type'' and the control temperature, ''–5 °C,'' is corrected to read ''+5 °C.''

• Special Provision TP3 is editorially revised for clarity.

Section 172.202. We are revising paragraphs (a)(2), (a)(5) and (b) as discussed below.

Requirement To Include the Subsidiary Hazard on Shipping Papers

In paragraph (a)(2), we are requiring the subsidiary hazard class(es) or subsidiary division number(s) to be entered in parentheses following the primary hazard class or division number on shipping papers. Prior to this amendment, the requirement only applied to transportation by vessel. As discussed in the NPRM, this amendment responds to four petitions for rulemaking, P–1363, P–1398, P–1402 and P–1418. One petitioner (P–1363) stated that the lack of such a requirement poses problems for motor carriers concerning segregation, separation and placarding requirements and poses a safety hazard. The petitioner pointed out that when the hazardous materials being transported include a subsidiary hazard such as ''dangerous when wet'' or a subsidiary hazard requiring more stringent requirements than the primary hazard, there is no indication of the subsidiary hazards on the shipping papers and no indication of the subsidiary risks on placards. The petitioner stated that when motor vehicles are being loaded at a dock, labels are not enough to alert hazardous materials employees loading the vehicles or emergency responders of the subsidiary risks of materials contained in the vehicle.

Two petitions (P–1398 and P–1402) were specific to Division 4.3 materials. The petitioners requested that we require the shipping paper to contain the words ''dangerous when wet'' following the basic description for hazardous materials classed as Division 4.3 or having a Division 4.3 subsidiary hazard. The petitioners stated that the additional information would aid emergency responders by more clearly identifying the hazard.

We agree with the petitioners and we are adding a requirement to identify all subsidiary risks of a hazardous material on the shipping paper.

We do not agree with the petitioner's (P–1363) suggestion to provide an exception from the revised requirement to include the subsidiary hazard on shipping papers when the subsidiary hazard is identified in the proper shipping name (for example, ''Flammable liquid, toxic, n.o.s.''). This suggested approach is inconsistent with the UN Recommendations and would result in the addition of a domestic exception that would not enhance hazard communication.

Some commenters supported the requirement to indicate the subsidiary hazard in the basic shipping description; however, other commenters asked that we provide a delayed implementation date in order to minimize associated costs resulting from changes that will need to be made to computer generated shipping forms. One commenter estimates that adding subsidiary hazard information to shipping papers will necessitate modifications to 80,000 active data profiles and case-by-case updates to possibly 200,000 additional data profiles. Another commenter suggests that our cost estimates in the NPRM understate the actual costs that shippers will incur, stating that its costs to comply with the shipping paper revisions proposed in the NPRM will total about $3,600,000. Other commenters agree that substantial time and resources, including modifications to systems and training programs, will be required to implement the new requirements. We agree that additional time is necessary and are extending the mandatory compliance date for this change until October 1, 2005 (*See* § 171.14). This date provides industry two years from the effective date of this final rule to implement the requirement and should help to reduce the implementation burden and costs of compliance with the change.

Requirement To Include Number and Types of Packages on Shipping Papers

We are also revising paragraph (a)(6) regarding the indication on shipping papers of the total quantity of hazardous materials. The amendment makes it mandatory for shippers to include on shipping papers the number and types of packages, such as drums, boxes, jerricans, *etc.,* being used to transport hazardous materials by all modes of transportation. In the NPRM, we proposed a one-year implementation period and requested comments specific to this issue, including suggestions to minimize any impacts that would be associated with the change, such as providing an extended transition period. A number of the commenters suggested that because of the costs associated with implementing the changes, such as to computer programs and systems, we should extend the compliance date. Most commenters suggested that a two or three-year implementation period would be sufficient. We agree that this new requirement warrants additional time to implement. To help reduce the implementation burden and associated costs, we are authorizing use of the current requirements until October 1, 2007 (*see* § 171.14). This date will provide companies four years from the effective date of this final rule.

One commenter requested that we justify the requirement to indicate package types and numbers on shipping papers. We believe that the requirement to indicate types and numbers of packages will enhance the safety and security of hazardous materials transportation while enhancing international harmonization. When incidents occur during transportation, it is essential to know the number of packages present in a given shipment. For example, emergency responders at the scene of an incident would use the information to be certain that they have accounted for all of the packages. After a release of hazardous materials from a motor vehicle involved in a highway traffic accident, it is important for the emergency responders to quickly ascertain the number and types of packages when determining their emergency response actions.

From a security perspective, an indication of the number and type of packages facilitates accountability of the packages. With today's heightened risk of terrorism, the requirement to include the number and types of packages on shipping papers is an effective tool in promoting public safety by allowing carriers, transportation workers, emergency responders and law enforcement personnel to quickly determine whether packages may be missing, such as from theft. The requirement will assist law enforcement personnel in identifying questionable shipments where further investigation may be warranted. The requirement will help deter and prevent hazardous materials in transportation from being used in a criminal manner, such as weapons of terrorism.

Finally, for ease of compliance with the appropriate regulations, international carriers engaged in the transportation of hazardous materials by aircraft generally elect to comply with the ICAO Technical Instructions, while vessel operators generally elect to comply with the IMDG Code. Because the ICAO Technical Instructions and the IMDG Code currently require the number and types of packages to be included on shipping papers, shippers complying with these international regulations are presently subject to conformance with this requirement. Consistency between international regulations and the HMR with respect to requiring the number and types of packages to be included on shipping papers is another step towards our goal of international uniformity.

One commenter requested that we allow the newly required indication of package types and numbers information to be entered before or after the basic description. We agree and have adopted this placement in this final rule.

Several commenters asked whether we would allow abbreviations for package type, noting that EPA allows certain abbreviations on the hazardous waste manifest. We agree that abbreviations may be used for package types and have revised paragraph (a)(6) accordingly.

We reformatted paragraph (a)(5) in response to a comment from the Dangerous Goods Advisory Council (DGAC) requesting clarification on the structure of paragraph. For the purpose of consolidation, we also transferred to paragraph (a)(5) the existing additional requirements for transportation by vessel currently located in § 172.203(i)(1), (i)(2), (i)(3) and (i)(6).

Optional Sequence of Information

Paragraph (b) is revised to allow an alternative to the basic description sequence currently required in this paragraph. Under the alternate format, the identification number is listed first, followed by the proper shipping name, the hazard class and subsidiary risk, and packing group number. Several commenters stated that authorizing a new sequence of information will cause confusion, and two commenters requested that a single sequence of information be adopted at the international level. While we believe that the new sequence is necessary for harmonization with international regulations, we are making it optional, rather than requiring it in this final rule. We agree that it would be beneficial to work with the appropriate international bodies to adopt on a single sequence of information.

Structure of 172.202(a)(5)

One commenter requested that 172.202(a)(5) be restructured to clarify the requirements. We agree and have made the necessary changes.

Description of Cylinders on Shipping Papers

One commenter requested that cylinders not be excepted from the requirement to indicate the total quantity on the shipping paper. This comment is outside the scope of this rulemaking as it addresses an existing requirement. Another commenter requested that we clarify § 172.202(a)(5) to indicate that cylinders may be described by a net or gross quantity, in addition to by number of cylinders. The commenter is correct that a net or gross mass may be used to describe cylinders and that this information is not mandatory. As previously discussed, however, we are requiring that the number and types of packages be included on shipping papers. This final rule, therefore, continues to allow the option of indicating the mass of cylinders, but makes mandatory the indication of the number of cylinders in a shipment. One commenter questioned whether airbags containing compressed gas cylinders would be subject to this requirement. We do not consider cylinders employed for use in airbags or other articles to be in the package, so the requirement does not apply in this instance. In the case of airbags and other articles containing cylinders, the package containing the airbag or article is considered to be the package.

Requirement To Indicate Net or Gross Mass

One commenter noted that the removal of the words ''as otherwise appropriate'' implies that shippers can no longer use other more relevant units of radioactivity to account for the quantity of radioactive materials in a consignment. This was not our intent, and we have specifically added text to allow the use of units more appropriate to radioactive material shipments.

Several commenters suggested that we eliminate the words ''net mass'' and ''gross mass'' from the example ''1box, net mass, 30 kg'' or ''2 drums, gross

mass, 200 kg.'' We agree that the example may be misleading and have removed the example from the section.

Several commenters noted that the sentence ''Abbreviations may be used to specify the unit of measurement for the total quantity'' is redundant because it is permitted in 172.202(c). We agree and have removed the sentence.

One commenter requested we retain the current phrase ''* * * of the hazardous material covered by the description * * *'' and not adopt the new phrase ''* * * of each hazardous material bearing a different proper shipping name, UN number or packing group * * *.'' We agree that the existing wording is adequate considering each element of the proposed language is a part of the ''description'' and have retained the current text.

One commenter suggested we use the term ''packages containing only residue'' rather than the term ''empty packagings.'' This comment is outside the scope of this rulemaking.

One commenter requested that we require a gross mass, and not a net mass or volume, due to placarding requirements. Because this was not proposed in the NPRM, the comment is beyond the scope of this final rule.

Section 172.203. We are removing and relocating paragraphs (i)(1), (i)(2), (i)(3) and (i)(6). With adoption of the requirement to indicate types of packagings on shipping papers in § 172.202, we are consolidating the four vessel requirements in § 172.203(i) by moving them to the description requirements in § 172.202(a)(5). The paragraphs address additional shipping paper requirements for the identification of the type, number and gross mass of packagings, and the identification of subsidiary hazards consistent with international standards. The current paragraphs (i)(4) and (i)(5) are redesignated (i)(1) and (i)(2).

Section 172.301. Paragraph (a)(1) is revised to reflect the new alternative marking requirement in § 172.315 for packages containing limited quantities of hazardous materials. Packages containing limited quantities of hazardous materials must be marked with the proper shipping name in accordance with § 172.301, or in accordance with the new alternative marking in § 172.315 that consists of an identification number placed within a diamond. (See § 172.315). Several commenters requested that we allow a shipment to be transported solely via highway and rail when marked and labeled for transport by aircraft. These comments, however, were based on the NPRM text which proposed to incorporate the marking as a mandatory requirement. Because we are adopting the marking as an alternative to the current requirements, a limited quantity package prepared for air transport is also acceptable for transportation solely by highway and rail without adding the marking as specified by § 172.315.

Section 172.312. A new paragraph (c)(6) is added to allow packages containing liquid infectious substances in primary receptacles not exceeding 50 ml (1.7 oz) to be excepted from the requirements in § 172.312(a). Section 172.312(a) requires liquid hazardous materials packaged in non-bulk combination packagings to be packed with closures upward and to be legibly marked with orientation markings.

Section 172.315. A new section, § 172.315, is added as an alternative marking requirement for packagings containing limited quantities of hazardous materials. This section allows limited quantity packagings to be marked with the identification (ID) number placed within a diamond. After considering the comments discussed below, we are incorporating the diamond marking into the HMR as an alternative to, rather than a replacement of, the existing marking requirements for limited quantities. In addition, the UN Committee of Experts on the Transport of Dangerous Goods will be addressing requirements for limited quantities and consumer commodities during their 2003–2004 work program. While we are not aware of any proposals to change the package marking for limited quantities, there is a possibility that changes may be discussed and adopted, and therefore, replacing the existing requirement would be premature at this time.

Not all commenters support adopting the requirement. Several commenters opposed the requirement because the diamond marking is not contained in the ICAO Technical Instructions. One commenter incorrectly stated that the requirement is not contained in any of the international standards, including the IMDG Code, and asked us to explain our purpose for proposing the limited quantity marking. Currently, the diamond marking is contained in Chapter 3.4.5.1.2 of the IMDG Code and in Chapter 3.4 of the UN Recommendations. By incorporating the marking as an alternative requirement, persons have the flexibility to continue using the current limited quantity package marking.

With respect to the ICAO Technical Instructions, we agree with the commenters' argument that incorporating the marking requirement will create unnecessary problems. Several commenters noted that under the current limited quantity requirements, they may mark and label packages containing limited quantities prepared for air transport and also ship them domestically by ground. URS Corporation stated that if we adopted this requirement, packages prepared for air transport displaying a hazard label and marked with the ID number and proper shipping name would need to be additionally marked with the new limited quantity marking when also transported by highway or rail. This would preclude shippers from using a single system of marking and labeling when packages marked and labeled for air transport are also being transported by highway or rail. We agree that applying the new limited quantity marking for packages prepared for air transport would be redundant. The commenters requested that we allow a shipment to be shipped via ground when marked and labeled for air transport, regardless of whether any portion of the transport includes transportation by air. In response to the commenters' request, we are revising the regulatory text in paragraph (a) by adding the words ''Except for transportation by aircraft.''

Some commenters requested an extended transition period, until October 1, 2006, for the continued use of the existing limited quantity requirement. The commenters pointed out that the October 1, 2004 delayed implementation date may not afford industry enough time to clear their stocks of packagings marked in accordance with the current marking requirements. With the adoption of this requirement as an option, the current limited quantity marking is retained and, therefore, an extended transition period is not necessary.

The Florida Department of Environmental Protection, Bureau of Emergency Response (FDEP–BER) believes that all packages should display the proper shipping name in order to determine the contents. FDEP–BER stated that ID numbers are not as easy and quick to identify as proper shipping names. In addition, using the ID number instead of a proper shipping name may require a person to consult reference materials to determine the contents of the packages because certain ID numbers apply to more than one chemical or reference only a generic shipping description that lacks the specific composition of the material. While we recognize the concerns of the commenters, we do not agree that indicating the UN number in lieu of the proper shipping name will compromise safety. We believe the proper shipping name can be quickly determined using

the Emergency Response Guidebook's section containing ID numbers.

One commenter requested a clarification regarding color specification for the limited quantity marking. Consistent with the UN Recommendations and the IMDG Code, we are not restricting the marking to a specific color.

Two commenters requested early voluntary compliance, as of January 1, 2003, with the new limited quantity marking. Because the NPRM did not include this requirement together with the proposed early compliance date for the incorporation-by-reference materials, the request is considered beyond the scope of this final rule. We are, however, authorizing immediate voluntary compliance upon the date of publication of this final rule.

Based on the above discussion, we are adding a new section, § 172.315, as an alternative marking requirement for packages containing limited quantities of hazardous materials. When marked in accordance with this section, limited quantity packages must be marked with the identification (ID) number placed within a square-on-point. Marking the proper shipping name on limited quantity packages is not required when using this marking, but is permissible. The line forming the square-on-point must be at least 2 mm thick and the height of the ID number no less than 6 mm. For packages containing more than one limited quantity of hazardous materials with different ID numbers, the packaging must be marked with either individual diamonds bearing a single ID number, or a single diamond large enough to include each applicable ID number. The marking must be durable, legible and of a size relative to the packaging as to be readily visible.

Section 172.321. A new section, § 172.321, is added to incorporate an air eligibility marking requirement into the HMR for non-bulk packages offered for transportation by aircraft. Section 172.321 replaces the proposed § 172.323 as the location for this requirement because § 172.323 is now the marking section for infectious substances. The marking certifies compliance with all the applicable air transport requirements that apply to a package containing hazardous materials that is offered for transport by air, including pressure differential requirements, package markings and labels, inner packaging limits, selection of appropriate types of packagings, use of closure instructions for inner packagings, use of absorbent materials, application of the cargo aircraft handling label (when applicable), and proper classification of the contents of the packaging.

We received approximately 10 comments addressing the proposed air eligibility mark. Some commenters are in favor of the marking, but request certain revisions, while other commenters are opposed to the adoption of the mark altogether.

Several commenters addressed the distinction between the use of the words ''package'' and ''packaging.'' The ICAO's use of the word ''package'' in the Technical Instructions and our use of the word ''package'' as proposed in the NPRM has led to misunderstandings of the meaning and applicability of the air eligibility mark. One commenter suggested that we postpone adoption of this requirement until ICAO has considered this issue. Another commenter suggested that we submit a variation to ICAO if we adopt the air eligibility mark as proposed. We interpret the current ICAO text that states shipments must ''meet all the applicable requirements for air transport'' to include the packaging plus its contents (the ''package'') and not the packaging alone. On the basis of a proposal to ICAO to revise the Technical Instructions by clarifying that the certification marking applies to the package, the ICAO Dangerous Goods Panel recently agreed to amend the ICAO Technical Instructions to indicate that the air eligibility mark is an indication that the shipper has determined that the ''package'' meets the applicable air transport requirements. Based on the foregoing, the text, as proposed, will be consistent with the ICAO Technical Instructions. Therefore, we believe it is appropriate to adopt this change at this time.

The Air Transport Association (ATA), the Air Line Pilots Association (ALPA) and Delta Airlines stated that the wording ''each person'' in paragraph (a) suggests that any person, including the carrier and the forwarder would be responsible for marking the package with the air eligibility mark. ALPA maintains that it is important for the marking to be applied when the package is being prepared. We agree that the offeror is the appropriate person to assume responsibility for the mark and that the carrier is responsible for ensuring that the mark is present. We are revising paragraph (a) by replacing the wording ''each person who offers for transportation or transports'' with ''each person who offers for transportation.'' This revision also responds to a comment that we received from DGAC in which DGAC cited the Federal hazardous materials transportation law concerning ''Representation'' and questioned the authority to place the air eligibility marking on a package. DGAC stated that, as proposed, requiring the mark to represent total certification of compliance would suggest that the only person who may ''display the marking on a package would be the same person making the certification'' in accordance with § 172.204. DGAC went on to question whether a packaging manufacturer may pre-certify compliance because there is no signature involved in the display of the marking. As discussed in the paragraph above, it is the offeror who is responsible for the certification. The packaging manufacturer is not certifying that the package is in compliance with all applicable requirements. The marking has no significance as a certification until the package is offered for transportation. With respect to the statement suggesting that only a signature can represent certification, the commenter is incorrect. Although the air eligibility mark, as a form of certification, does not waive the shipping paper certification, the air eligibility mark certifies that the package meets all applicable requirements for air transport. This is consistent with existing regulatory text in § 172.316 that states the ORM–D marking is the certification that the material is properly described, classed, packaged, marked and labeled.

Several commenters disagree with allowing the air eligibility mark to be hand drawn. Currently, the HMR does not prohibit any markings from being hand drawn provided all applicable specifications are met. We did not propose a specific graphic for the marking and do not believe it is necessary to single out the air eligibility mark from being hand drawn as long as it clearly depicts an airplane in a circle and says ''Air Eligible.'' However, we may consider proposing a specific graphic for the air eligibility marking in future rulemaking, preferably based on a consensus standard.

Dupont, the Air Transport Association (ATA), ALPA and Delta Airlines disagree with allowing the air eligibility mark to be preprinted on packages. The commenters believe that preprinted packages can inadvertently be used for shipments that are not suitable for air transport. Currently, the HMR authorizes UN markings and other package markings to be preprinted and we view the air eligibility mark as similar. In certain instances it may be more cost effective for the shipper to preprint the mark. It is our position that it is the responsibility of the offeror to ensure that every package bearing the

mark is air eligible, regardless of whether it is preprinted or not.

One commenter incorrectly questions why we except dry ice from the air eligibility mark when the ICAO Technical Instructions do not provide the exception. The ICAO Technical Instructions contain the same exception in the dry ice packing instruction (see ICAO Technical Instruction 904).

One commenter opposing the incorporation of the air eligibility mark is concerned that currently marked shrink-wrapped packages will be required to be remarked. As discussed earlier in this preamble, we are providing an extended transition period, until October 1, 2004, which will allow sufficient time for such packages to be transported as they are currently marked.

One commenter believes there is not enough space for another marking and states that if the package has been tested under UN certification, ''it is fit for air.'' We disagree. The size requirement specifies only that mark be visible. Meeting the UN packaging test requirements is not an assurance that the package is suitable for its contents or that it complies with the applicable air transport requirements.

Several commenters are opposed to the air eligibility marking stating that our interpretation of what the air eligibility mark certifies is too broad or that the mark is unnecessary because the certification statement on the shipping paper is sufficient. We disagree. The air eligibility mark communicates the certification directly on the package. In addition to consistency with the ICAO Technical Instructions, we believe that the use of an air eligibility mark will be beneficial in heightening shipper awareness and responsibility for meeting the additional air transport package requirements. Adoption of this requirement will reduce the inadvertent acceptance for transportation by aircraft of packages that conform only to highway, rail or vessel requirements.

Based on the above discussion, we are incorporating the air eligibility marking requirement into the HMR for all non-bulk packages offered for transportation or transported by aircraft with certain exceptions. The shipper is responsible for the application of the marking, but is not required to physically place it on the package. The marking can be applied by using a durable sticker or label, preprinting it on the packaging, or drawing it on the package by hand. The marking must be durable, legible, and of such size relative to the packaging as to be readily visible. Preprinting by the packaging manufacturer requires the manufacturer and the shipper to closely coordinate to ensure that the package meets the applicable air transport requirements. The shipper is responsible for ensuring that the package meets the applicable air transport requirements.

A number of changes to the proposed text are made in this final rule to clarify the purpose of the marking and requirements. The text of paragraph (a) is revised to more clearly identify the purpose of the mark as certification by the person offering a package that the package meets requirements for air transportation and to provide examples of those requirements. A sentence is added to § 172.321(a) to clarify that the air eligibility mark does not eliminate a requirement for a certification on a shipping paper. Paragraph (b) is reformatted and a sentence is added to clarify that an overpack or outer packaging containing a cylinder must be marked rather than the cylinder. Paragraph (c) is revised editorially and to clarify that packagings which are excepted from marking requirements are not subject to the air eligibility marking. A new paragraph (d) is added to clearly indicate that the air eligibility marking may not be displayed on a package which does not meet requirements for air transportation.

Section 172.411. We are revising the section heading and paragraphs (b) and (d), and adding new paragraphs (e) and (f). In the June 21, 2001 HM–215D final rule, we removed the requirement to differentiate between primary and subsidiary labels by requiring the class number to be displayed on both types of labels. The primary explosive label, but not the explosive subsidiary label, required the appropriate division number and compatibility group to be displayed. This disparity was an oversight, and we are correcting this section by adding the pictorial of the explosive subsidiary label and revising the text accordingly.

Section 172.504. Based on an oral comment we received from a shipper, paragraph (g) is editorially revised to explain the distinction between the words ''explosive articles'' and ''explosive substances.'' The commenter stated that the paragraph is often misinterpreted because the two phrases are not understood as having different meanings.

Part 173

Section 173.2a. In paragraph (b), the second line of the title of the Precedence of Hazard Table is editorially revised to include the word ''division.'' In addition, the Table is revised for the first three entries by inserting ''4.3'' under the Division 4.3 column to indicate that Division 4.3 takes precedence over Class 3 when classifying a material having more than one hazard.

Section 173.21. In paragraph (f)(3)(ii), we are updating the location reference to the control temperature requirements in the IMDG Code to its current location in Chapter 7.7.

Section 173.22. We are revising paragraph (a)(4) to clarify that, in addition to complying with the Part 178 requirements, the shipper is responsible for ensuring that packages comply with the Part 173 requirements. This revision is consistent with the new amendments to § 173.24a relative to closures, and to § 173.27 relative to packages intended for air transport.

Section 173.24. Certain comments that we received are beyond the scope of this rulemaking and will not be addressed in this final rule. In the NPRM we proposed to add a new paragraph (b)(4) and revise paragraph (f)(1). Paragraph (b)(4) proposed general requirements applicable to the integrity of packagings. It also proposed to specify that packagings must be closed in accordance with the closure instructions provided by the manufacturer. Prior to this final rule, § 178.2 required packaging manufacturers to provide closure instructions. Although implied under the requirements of §§ 173.22a(2) and 173.24(d) and (f)(2), there was no specific requirement that shippers follow closure instructions. Also in the NPRM, paragraph (f)(1) proposed to revise requirements for the construction and design of closures.

The National Solid Wastes Management Association (NSWMA) submitted a comment supporting the requirement that packages be closed in accordance with the manufacturer's instructions. The Reusable Industrial Packaging Association (RIPA) also supported the proposal, but requested a revision to permit shippers to close packages in a manner that differs from the closure instructions in § 173.28 provided such procedures are fully documented. RIPA states that the word ''must'' is restrictive for the requirement that packages must be closed in accordance with the manufacturer's instructions and suggests the word be replaced with ''should.'' The commenter further stated that it is impossible for a packaging manufacturer to anticipate every climatic and work condition in which filling may take place and that the manner in which packages are closed often varies from plant to plant. The commenter recommends that closure procedures varying from the

manufacturer's instructions be authorized.

We agree that there may be cases in which certain deviations from the specific closing instructions provided by the manufacturer may be warranted, and note that certain changes are currently permitted under packaging variations in Subpart M of Part 178. We do not agree with revising the word ''must'' to ''should.'' Where the manufacturer has specified closure instructions, those instructions may be critical to performance of the packaging in transportation. We understand the commenter's concerns that a shipper should be able to vary from the closure instructions if an equivalent level of safety is achieved and the procedure is documented. However, to the extent that such changes are not currently permitted and were not proposed in the NPRM, we consider them outside the scope of this rulemaking.

RIPA's concerns highlight the need for collaboration between packaging manufacturer and customer in the design, testing and use of packagings. There is a need for manufacturers of hazardous materials packagings to take into account the various conditions of transport that the packaging may experience. If a packaging has limited capability under specific conditions, then the manufacturer's instructions should indicate these limitations. Effective communication of the packagings' capabilities will serve to avoid the potential for a shipper to inadvertently use a packaging that was not intended for certain transport environments. The closure instructions should provide specifics relative to the packagings' capabilities when specific conditions of transport would impact the packagings' capability to contain hazardous materials.

RIPA commented that several different gasket configurations may need to be used dependent on the filling and transport conditions. If this is the case, and the different gasket configurations were taken into account in the packaging design qualification, the closure instructions should provide appropriate closure information with respect to all of the gasket configurations that were approved according to the design type testing.

Shippers should not be arbitrarily changing closure devices without coordination with the packaging manufacturer or conducting additional testing to verify that the packaging integrity has not been compromised. As specified in Subpart M of Part 178, the substitution of closures or gaskets (for example, changing from a metal bung closure to a plastic bung closure on a closed head steel drum) may change the packaging design type for purposes of UN performance design qualification testing. Closure changes are permitted according to the selective testing variations in accordance with § 178.601(g)(1) and (g)(5). Only when the conditions of the selective testing conditions have been met (including the specified limited additional testing according to § 178.601(g)(5)), if applicable, may a different closure or gasket be used without the packaging being considered a new design requiring the full UN performance testing prescribed in Part 178. The regulatory text we are adopting in this final rule does not negate the ability of the shipper to use different closures consistent with the selective testing provisions.

The instructions provided by the manufacturer should indicate variations to closure procedures that would compensate for environmental conditions or conditions based on the types of materials that are contained in the packaging. To ensure proper closure of packagings and to avoid leaks in transport, shippers and manufacturers need to work in coordination to ensure that the closure methods used will provide an effective seal taking into account the various conditions involved during transport.

Additionally, RIPA commented that (b)(4) and (f)(1) should use consistent wording, and that the text in (f)(1) concerning the requirement for closures to be designed in a manner that make improper closure unlikely should be removed. We do not agree with RIPA's proposed editorial revisions that suggest adding wording such as ''reasonable changes in temperature,'' ''normal altitude variations'' or ''normal vibration ranges.'' We believe this wording is vague and will not enhance the clarity of either paragraph. We agree that the sentence, as proposed in the NPRM, requiring the closure device to be so designed that it is unlikely to be incorrectly or incompletely closed may not be realistic and may be subject to a range of interpretation. We are not, therefore, including the requirement in this final rule.

We believe that the amendments to this section will enhance safety by ensuring that adequate consideration is given to the effects of transportation conditions on packages and that packages are securely and effectively closed.

Section 173.25. In paragraph (a)(2), we are including the air eligibility marking as part of the marking requirements pertaining to overpacks.

Section 173.27. We are revising paragraph (e) and adding a new paragraph (i). Paragraph (e) is revised to require packagings with plastic and metal inner packagings to be packaged using absorbent material when Packing Group I or II liquids of Class 3, 4 or 8 or Division 5.1, 5.2 or 6.1 are offered for transport by passenger or cargo aircraft. Prior to this amendment, the requirement to use absorbent material applied to Packing Group I and II materials when offered for transport by passenger aircraft, and to Packing Group I materials when offered for transport by cargo aircraft. We are applying this requirement to Packing Group II materials offered for transport by cargo aircraft. Existing absorbent material requirements apply when inner packagings are constructed of glass or earthenware. Prior to this final rule, the absorbent material requirement did not apply to Division 5.2 liquids. The amendments are consistent with the 2003–2004 edition of the ICAO Technical Instructions.

We received four comments concerning the absorbent material requirement in paragraph (e). Two commenters suggested that we clarify or remove paragraph (e)(5), which provides an exception from the use of absorbent materials when the inner packagings are not fragile. Paragraph (e)(5) is existing text that was not proposed to be revised in the NPRM. However, we agree that this exception needs to be reconsidered and we have submitted a working paper to the ICAO Dangerous Goods Panel to address it. One commenter, addressing paragraph (e)(2), believes that one absorbent material requirement should apply to transportation by passenger and cargo aircraft. Because these are existing requirements that we did not address in the NPRM, the comment is beyond the scope of this rulemaking.

The Conference on Safe Transportation of Hazardous Articles (COSTHA) stated that the proposed regulatory text is broader than that contained in the ICAO Technical Instructions because it requires absorbent material for all liquid hazardous materials except Class 9. The commenter suggests that we align the paragraph with the wording in the ICAO Technical Instructions by specifically stating that the applicability of the requirement is for liquids in Classes 3, 4, 8 and Divisions 5.1, 5.2 and 6.1. It was not our intent to differ from the requirements of the ICAO Technical Instructions. We agree and are revising the regulatory text accordingly.

We are also adding a new paragraph (i) to refer the reader to new section § 172.321 for the air eligibility marking

requirement for packagings containing hazardous materials being transported by aircraft. See § 172.321 for the discussion on this requirement.

Section 173.62. In § 173.62, in the paragraph (b) Explosives Table, the entry ''UN0503'' is added to the packing instruction P135. This is consistent with international regulations. UN0503 is assigned to the proper shipping name ''Air bag inflators, *or* Air bag modules, *or* Seat-belt pretensioners,'' Division 1.4G (also see § 172.101, HMT). The Class 9 ''Air bag inflators, *or* Air bag modules, *or* Seat-belt pretensioners'' entry continues to be packaged in accordance with § 173.166.

In addition, the obsolete ID number UN0223 is removed from the packing instruction 112(b) in the Explosives Packing Instructions Table. The entry was removed from the § 172.101 Table in a previous rulemaking.

Section 173.115. In paragraphs (d) and (e), we are amending the regulatory text that describes ''non-liquefied compressed gas'' and ''liquefied compressed gas.'' The amendment revises the reference temperature from 20 °C to −50 °C, consistent with internationally accepted definitions for gases and consistent with the twelfth edition of the UN Recommendations.

We are also dividing compressed liquefied gases into high and low pressure categories. The UN Subcommittee revised the terminology for gases to align it with the terminology used in the International Organization for Standardization (ISO) Standard 10286. This standard establishes the terminology applicable to gas cylinders and provides definitions for gases. The new regulatory text affects 11 entries in the § 172.101 Table by removing the word ''compressed'' from the proper shipping names. Under a separate rulemaking, we will address whether the affected gases should be reassigned to more appropriate packagings sections, such as revising the packaging authorization from § 173.302 to § 173.304 in Column (8B) in the § 172.101 Table. We will also address the use of the high- and low-pressure compressed liquefied gas designations.

Sections 173.152, 173.153 and 173.154. The following sections are revised by increasing the inner packaging net capacity limit for Packing Group III liquids from 4 L (1.1 gal) to 5 L (1.3 gal): § 173.152(b)(2), exceptions for Division 5.1 oxidizers and Division 5.2 organic peroxides; § 173.153(b)(1), exceptions for Division 6.1 poisonous materials; and § 173.154(b)(2), exceptions for Class 8 corrosive materials. Section 173.152(b)(4)(ii) is also revised by raising the net capacity of inner packagings containing PG II flammable liquids in polyester resin kits from 1 L (0.3 gal) to 5 L (1.3 gal) each.

Section 173.159. A new sentence is added to paragraph (a) requiring packagings for certain batteries to include an acid/alkali proof liner or a supplementary packaging with sufficient strength and adequate sealant to prevent leakage of electrolyte fluid in the event of spillage. This requirement applies to packagings transported by aircraft and containing electric storage batteries with electrolyte acid or alkaline corrosive battery fluid.

A new paragraph (d)(4) is added to require non-spillable batteries, that are excepted from all other requirements of the HMR, to meet the condition that at a temperature of 55 °C (131 °F), the electrolyte will not flow from a ruptured or cracked case and there is no free, unabsorbed liquid in the battery.

Section 173.161. We are revising this section to specify the packaging requirements for chemical and first aid kits consistent with international standards. We received several comments stating that in paragraph (b), as proposed, the first sentence suggests we are requiring specification packaging for air transport. This was not our intent. The ''except when offered by air'' phrase was intended to apply only to labeling. Therefore, we are revising the first sentence to indicate chemical and first aid kits are excepted from specification packagings for all modes of transportation.

Section 173.166. This section is revised consistent with the removal of the Division 2.2 entry for ''Air bag inflators, compressed gas or Air bag modules, compressed gas or Seat-belt pretensioners, compressed gas,'' UN3353 (see § 172.101, HMT). We are authorizing reclassification to Class 9 without further testing for air bag inflators, air bag modules and pretensioners previously approved for transportation as Division 2.2. We received comments from NAAHAC supporting the adoption of this revision.

Section 173.185. Paragraphs (e)(4) and (e)(7) are revised and a new paragraph (k) is added. We are combining paragraphs (e)(4) and (e)(5) into one paragraph, (e)(4), and removing and reserving paragraph (e)(5).

The revised paragraph (e)(4) allows the use of dividers or other suitable means as alternative methods to inner packagings for effective means of preventing short circuits of lithium cells and batteries.

Based on a comment that was beyond the scope of the HM–215D final rule, we are revising paragraph (e)(7) by applying the prohibition to offer for transportation or transport certain cells and batteries to only those with a liquid cathode containing sulfur dioxide, sulfuryl chloride or thionyl chloride. Prior to this amendment, any cell or battery with a cell that has been discharged to the extent that the open circuit voltage is less than 2 volts, or less than two-thirds of the open circuit voltage of the fully charged cell, whichever is less, is prohibited from being offered for transportation or transported. We are including sulfuryl chloride in this amendment. The UN Recommendations do not include this prohibition. The reduced voltage condition was included in the HMR to address lithium sulfur dioxide, sulfuryl chloride and lithium thionyl chloride primary batteries on the basis of safety issues with low-voltage cells. The lithium sulfur dioxide batteries present hazards in transportation when the sulfur dioxide is depleted. The depletion can cause the removal or breakdown of the passivation film on the lithium anode which could result in a undesirable exothermic reaction of the lithium metal and the electrolyte solvent leading to high temperatures, cell venting, cell rupture, and fires. In addition, a new paragraph (k) is added to allow batteries with a mass of 12 kg or greater and having strong, impact-resistant outer casings to be packed in strong outer packagings, protective enclosures, or unpacked on pallets. Packaging in this mannermay be transported by cargo-only aircraft and is permitted only with the approval of the Associate Administrator.

Additional amendments to the requirements for lithium batteries are being addressed in a separate rulemaking, under Docket HM–224C (NPRM published on April 2, 2002, 67 FR 15510). One of the proposals under Docket HM–224C addresses a reorganization of § 173.185.

Section 173.216. We are moving the exceptions for asbestos in paragraph (b) to a new special provision (see Special Provision 156 in § 172.102). Paragraph (b) excepts asbestos immersed or fixed in a natural or artificial binder material and also excepts asbestos contained in manufactured products. We understand that because the exception is located in § 173.216 and referenced in Column (7) of the HMT for non-bulk packagings, the exception appears to be limited to non-bulk packagings. To clarify the applicability, we are removing and reserving paragraph (b) and transfering the exception to new Special Provision 156. The exception continues to apply to three entries, ''Blue asbestos (Crocidolite) or Brown asbestos (amosite, mysorite),'' UN2212, ''White

asbestos (chrysotile, actinolite, anthohyllite, tremolite),'' UN2590, and ''Asbestos,'' NA2212.

Section 173.218. Paragraph (a) introductory text is revised and paragraph (b) is removed. Paragraph (a) introductory text is editorially revised to reflect the relocation of the requirement previously contained in paragraph (b). In paragraph (b), the requirement for the maximum temperature at which fish meal or fish scrap may not be offered for transportation is revised from 49 °C (120 °F) to 35 °C (95 °F), or 5 °C (41 °F) above ambient temperature, whichever is higher, and relocated to Special Provision 155 (see § 172.102).

Section 173.220. We are adding a new paragraph to include additional requirements for certain engines and vehicles. Existing paragraph (e) is redesignated (f) and the new paragraph becomes paragraph (e). The new paragraph includes several additional requirements for internal combustion engines and vehicles equipped with certain devices when transported by aircraft or vessel. When engines are shipped separately, we are requiring that all fuel, coolant, hydraulic fluids or any other hazardous materials that meet the definition of a hazardous material, must be drained as far as practicable, must have disconnected fluid pipes sealed with leak-proof caps that are positively retained, and for transportation by aircraft, any installed theft-protection devices, radio communications equipment or navigational systems must be disabled.

We received several comments to the proposed new paragraph. UPS supports the revisions and believes the new paragraph will help eliminate confusion when offering or transporting engines. URS Corporation stated that the last sentence requiring certain equipment to be disabled should be omitted because it is not contained in the UN Recommendations. The commenter is correct that the requirement is not contained in the UN Recommendations, however, because it is contained in the ICAO Technical Instructions, we are revising the sentence to apply to air shipments only.

Lynden Incorporated, which represents several tug/barge operators, commented that the terminology ''internal combustion engine'' has become synonymous with the term ''vehicle.'' Lynden Incorporated states that as proposed, paragraph (e) may lead to confusion with respect to which engines must be drained of fluids and must have disconnected fluid pipes sealed with leak-proof caps. Although the words ''shipped separately'' in the proposed text were intended to mean that we are not referring to engines that are installed in a vehicle or machinery, we have decided to further revise the sentence by specifying that the paragraph pertains to engines that are not installed in vehicles or equipment.

Finally, COSTHA requested that paragraphs (a)(2) and (c) be aligned with new Special Provision 157 and the current Special Provision 134 by specifically referencing sodium and lithium batteries. We agree and are making the revisions accordingly.

Section 173.223. We are adding a new packaging section, § 173.223, for musk xylene. Prior to this amendment, the authorized packaging section for musk xylene, § 173.214, required approval by the Associate Administrator. We are adding a new section that is consistent with the UN packing instruction P409 assigned to musk xylene, so that approval by the Associate Administrator is no longer necessary.

Section 173.224. In paragraph (b)(4), the incorrect reference for bulk packaging authorizations, § 173.225(d), is corrected to read § 173.225(e). In the Self-Reactive Materials Table following paragraph (b)(7), five entries in Column (1) are revised and four new entries are added. The five revised entries appear first as ''removes'' and then ''adds'' in the regulatory text section of this rulemaking. For the entry ''2,2′-Azodi(isobutryonitrile) as a water based paste,'' the misaligned column entries are corrected. A new Note 4 is added following the table for assignment to the new entry ''2-Diazo-1Naphthol sulphonic acid ester mixture, Type D.''

Section 173.225. We are amending the paragraph (b) Organic Peroxide Table, the Notes following the Table, and paragraphs ¶ (e)(3)(xii) and (e)(5). The amendments to the Organic Peroxide Table include the addition of bulk and IBC packaging authorizations for certain entries, the addition of several new entries and various corrections to certain entries.

Note 9 following the Table is revised by correcting the paragraph reference ''(e)(3)(ii)'' to read ''(e)(3)(xii).'' A new Note 27 is added for the new entry ''Peroxyacetic acid, distilled, Type F, stabilized,'' UN3110. A new Note 28 is added to clarify that ''Peroxyacetic acid'' and Peracetic acid'' are synonymous.

Paragraph (e)(3)(xii) is revised to clarify that DOT Specification 57 portable tanks are not subject to any other requirements in paragraph (e).

We are also moving the approval provisions contained in the § 172.102(c)(4) Table 2, Special Provision IB52, to paragraph (e)(5). We believe this is a more appropriate section for the approval provisions, which we are expanding to provide for the use of IBCs other than those indicated in the IB52 Table when approved by the Associate Administrator.

Section 173.244. We are revising paragraph (c) by adding a clarification that UN portable tanks are also authorized for use if a T code is specified in Column (7) of the HMT for the specific hazardous material.

Section 173.306. We are revising the paragraph heading in § 173.306(f) by adding the proper shipping name ''Articles, pressurized, pneumatic *or* hydraulic containing *non-flammable gas*.'' The revision is based on the proper shipping name replacing the domestic entry ''Accumulators, pressurized, pneumatic *or* hydraulic (*containing non-flammable gas*),'' which was removed in HM–215D published on June 21, 2001. We received oral comments requesting the addition to the paragraph heading to clarify the intent of the paragraph.

We are also adding a new paragraph (j) to reference the exception for certain compressed gases in § 173.307.

Section 173.307. We are adding a new paragraph (a)(5) to except Division 2.2 gas aerosols with a capacity of not more than 50 ml and with a pressure not exceeding 970 kPa (141 psig) from the HMR.

Section 173.418. Consistent with the addition of Special Provision A56, which requires pyrophoric Class 7 (radioactive) materials to be shipped in Type B packages when transported by aircraft, we are amending § 173.418 to reflect this change.

Section 173.422. We are revising the certification statements in paragraphs (a)(2), (a)(3) and (a)(4) to reflect the updated proper shipping names and UN identification numbers currently authorized in the § 172.101 Table for excepted packages of radioactive materials.

Part 175

Section 175.10. We are adding a new sentence to paragraph (a)(4)(iv) to clarify that the paragraph (a)(4) passenger or crew member personal use exceptions apply to aircraft operators when transporting baggage that has been separated from a passenger or crew member before reaching its final destination, including transfer to another air carrier for delivery. The exceptions were included in the HMR to accommodate the needs of the traveling public to allow passengers and crew members to carry certain quantities and types of articles, such as medicines and toiletries, in checked and carry-on

baggage. The existing regulatory text does not clearly indicate that baggage may be transported when not accompanied by the crew member or passenger, such as when the baggage has been separated from the crew member or passenger due to misroutings, delays, etc. Rather than adding a new paragraph (c) as proposed, we are including this clarifying language at the end of paragraph (a)(4).

We received a comment from Alaska Airlines requesting that this exception be clarified to include scenarios in which the baggage is offered to another carrier by adding the words ''or offering'' to the paragraph. Alaska Airlines suggested replacing the words ''when transporting passenger or crew member baggage'' with ''when transporting or offering passenger baggage.'' Alaska Airlines also requested that we extend the passenger or crew member personal use exceptions to carriers in other modes of transportation to accommodate such instances when the passengers' or crew members' bags are transported to their intended destination by a mode of transportation other than aircraft. We do not agree that the addition of the words ''or offering'' is the most appropriate means of addressing the situation whereby one carrier provides separated checked baggage to another carrier for transport to its intended destination. In this scenario, the carrier that provides the baggage to another carrier is not the offeror. The passenger or crew member is the offeror and is responsible for the contents of the baggage. The passenger or crew member is responsible for ensuring compliance with the HMR when the baggage is offered to the carrier.

We agree with Alaska Airlines that the exceptions should apply when an air operator arranges with another carrier to transport the baggage to its intended destination, including by modes other than air. Although we do not agree that the words ''or offering'' should be added as requested by the commenter, we are including revised regulatory text to clarify that the exceptions also apply when a carrier provides the baggage to another carrier for the purpose of reuniting the baggage with the passenger or crew member who offered it.

We are also revising paragraph (a)(25) to allow two small carbon dioxide cartridges fitted in self-inflating life jackets and two spare cartridges to be carried by a passenger or crew member in checked or carry-on baggage. Prior to this amendment, paragraph (a)(25) allowed, with the approval of the aircraft operator, one small carbon dioxide cylinder fitted into a self-inflating life-jacket, plus one spare cartridge.

Section 175.30. We are adding a new paragraph (a)(5) requiring that the air eligibility marking requirement in § 172.321 must be met before a person may accept hazardous materials for transportation by aircraft.

Section 175.90. We are revising paragraphs (b) and (c). Paragraph (b) is revised to include amendments relative to an aircraft operator's responsibility concerning packagings, baggage or cargo that have become contaminated by leaking hazardous materials. This amendment is consistent with the 2003–2004 edition of the ICAO Technical Instructions and is in response to a National Transportation Safety Board (NTSB) recommendation (A–96–30) issued to the Federal Aviation Administration. The NTSB recommendation resulted from an incident involving an undeclared shipment of a hydrogen peroxide solution that leaked, resulting in injuries to airline personnel and a potential fire hazard aboard a passenger aircraft. Paragraph (c) prohibits a person from placing a damaged packaging aboard an aircraft. We are revising the paragraph by including the words ''baggage or cargo'' when referring to damaged or leaking cargo.

Part 176

Section 176.27. In paragraph (c)(2), we are removing the words ''of 49 CFR 176.27(c)'' at the end of the certification statement and adding the words ''of 49 CFR'' or ''of the IMDG Code.''

Section 176.63. We are adding a new paragraph (f) to include the conditions for the authorized stowage of containers on board hatchless container ships.

Section 176.83. We are adding a new paragraph (l) to include the requirements for the segregation of containers on board hatchless container ships. Paragraph (f) is revised to reflect the addition of the new paragraph.

Section 176.84. In the paragraph (b) Table of Provisions, we are adding nine new provisions (codes) for certain stowage and segregation requirements for hazardous materials that are transported by vessel. The terms ''separated from'' and ''away from'' in the codes are defined in § 176.83 of the HMR.

Code 124 is added to the entry ''Ammonium nitrate emulsion *or* Ammonium nitrate suspension *or* Ammonium nitrate gel, *intermediate for blasting explosives,*'' UN3375 and requires the material to be stowed ''separated from'' bromates.

Code 125 is added to the new entry ''Chlorosilanes, toxic, corrosive, flammable, n.o.s.,'' UN3362 and requires segregation to be the same as for flammable liquids; however, also requires UN3362 to be ''away from'' flammable solids.

Code 126 is added to the five current UN1950 aerosol entries and requires segregation to be the same as for Class 9 miscellaneous hazardous materials.

Code 127 is added to ''5-tert-Butyl-2,4,6-trinitro-m-xy-xylene,'' UN2956 and requires packagings carrying a subsidiary risk of Class 1 (explosives) to be segregated as required for Class 1, Division 1.3.

Code 128 is added to ''Fish meal, stabilized,'' UN2216 and ''Fish meal, unstabilized,'' UN1374 and requires stowage to be in accordance with the IMDG Code, sub-section 7.1.10.3.

Code 129 is added to ''Radioactive material, low specific activity (LSA–I) *non fissile or fissile-excepted,*'' UN2912 (the international entry); ''Radioactive material, low specific activity, n.o.s. *or* Radioactive material, LSA, n.o.s.,'' UN2912 (the domestic entry); ''Radioactive material, low specific activity (LSA–II) *non fissile or fissile-excepted,* ''UN3321; and ''Radioactive material, low specific activity (LSA–III) *non fissile or fissile excepted,*'' UN3322. This code requires stowage to be in accordance with Stowage Category A, with certain exceptions noted.

Code 130 is added to ''Radioactive material, Type A package *non-special form, non fissile or fissile-excepted,*'' UN2915 to require Stowage Category A. Certain exceptions are noted.

Code 131 is added to ''Radioactive material, Type A package, fissile *non-special form,*'' UN3327 to require Stowage Category A, with certain exceptions noted.

Code 132 is added to ''Uranium hexafluoride, fissile (*with more than 1 percent U–235*),'' UN2977; ''Uranium hexafluoride, *fissile excepted or non-fissile,*'' UN2978; ''Radioactive material, uranium hexafluoride, fissile,'' UN2977; and ''Radioactive material, uranium hexafluoride *non fissile or fissile-excepted,*'' UN2978. This code requires stowage to be in accordance with Stowage Category A and notes that any supplementary requirements specified in the transport documents must be considered.

Section 176.140. The reference to the IMDG Code in paragraph (b) is updated by removing the wording ''General Introduction.''

Section 176.170. Paragraph (b) is removed and reserved. For alignment with a revision made in Amendment 31 of the IMDG Code, we are removing the

requirement that prohibits freight containers exceeding 6 m (20 feet) in length from carrying more than 5000 kg (11,023 lbs) net explosive weight of most explosive substances. This provision was removed from the IMDG Code because it placed an inconsistent and unnecessary restriction on containers exceeding 6 m (20 ft) in length, while placing no such restriction on smaller containers. We received a comment from the Sporting Arms and Ammunition Manufacturers' Institute supporting this revision.

Sections 176.410 and 176.415. We are updating these sections for consistency with international standards and with the prior removal of ammonium nitrate fertilizer proper shipping names from the HMR.

Part 178

Section 178.2. Paragraph (c)(1)(ii) is revised by clarifying the information that the packaging manufacturer and each subsequent distributor are required to provide to packaging users. We received several comments concerning this revision. DGAC supports the revision stating that the clarification recognizes the flexibility necessary for effective communication between the manufacturer and packaging user. RIPA supports the general intent of the revision and stated that it is consistent with the UN Model Regulations and should result in ensuring that shippers do a better job of closing packages. RIPA believes that packaging manufacturers and distributors should be required to clearly describe the complete closure system needed for proper closure, including inner packagings, and closure procedures used in passing the applicable performance tests. We agree with this statement and believe that the text, as proposed, adequately addressed these intentions.

RIPA also states we should recognize that shippers often diverge from the manufacturer's instructions to accommodate site-specific conditions, and that ''recommended closure torque values may safely be expressed as minimum values, median values, or a range of values.'' In response to RIPA's comment about allowing shippers to deviate from the closure instructions, our intent, as stated in the NPRM, was to clarify the information that the packaging manufacturer must provide. We did not propose provisions for deviating from closure instructions and considered these recommendations beyond the scope of this rulemaking. For the same reasons, we disagree with RIPA's recommendation to use the phrase ''procedural guidelines for closure recommended by the packaging manufacturer'' instead of ''procedures to be followed.'' RIPA's proposal that we add a new paragraph (c)(1)(ii)(A) to allow the use of torque values is not necessary because current requirements do not preclude ranges of values from being specified in the closure instructions.

RIPA also states that ''the manner in which shippers (*i.e.* fillers) close packagings will often vary from plant to plant'' and provides an example indicating ''that some shippers will tighten drum plugs just prior to shipping to account for possible expansion of the metal or plastic that results from heat exposure that occurs from the time the drum is filled and the time it is placed on a transport vehicle and that other plants have found no need for such a practice.'' Our position is that the manufacturer could easily and realistically include guidance in the closure instructions to indicate, for example, that ''after filling and prior to transport, the shipper should check the tightness of closures to determine if the effects of heating, cooling or gasket relaxation have resulted in the need to tighten the closure.'' While we agree that the shipper has the responsibility for determining the suitability of packagings for the hazardous materials offered for transport, and for ensuring that a package is assembled, closed, or otherwise prepared for transport in compliance with the applicable specifications and requirements for the applicable packaging design type, we believe that the manufacturer needs to provide specific information to allow the shipper to fulfill his responsibilities. The amendments to this section are intended to improve the quality of information provided by manufacturers to shippers in order to enhance safety.

PPG Industries submitted a comment requesting that the last sentence concerning the package being capable of withstanding the pressure differential requirements be removed. PPG Industries indicated that the pressure-differential capability needed by a given packaging is dependent on the material packaged, and that the packaging manufacturer cannot determine full compliance. Single packages for containing liquids are tested and marked with a pressure test rating, which may or may not be suitable for air shipment. It is up to the shipper to determine whether a packaging is suitable for air shipments based on it size, and to determine the appropriate pressure test capability to contain the particular hazardous material packaged. While we agree that the shipper must determine that the package is suitable for the intended hazardous material to be transported, we do not agree that the requirement for the manufacturer to provide guidance to assist the shipper in ensuring that the packaging meets the relevant air transport pressure differential requirement is beyond the capability of the packaging manufacturer. For example, the instruction could indicate that the inner packaging was successfully tested to a pressure differential test at 95 kPa and clearly describe the complete closure system needed for proper closure and the closure procedures used in passing the applicable performance tests. While some hazardous materials may require a different pressure differential, the closure instructions should be sufficient to allow the shipper to determine whether the packaging is suitable for the material, modes of transport and transport conditions. The closure instructions should provide sufficient details relevant to the procedures for closures consistent with the procedure necessary to enable the packaging to meet the pressure differential for which it was tested. Considering this information, the shipper would be able to properly determine whether the package was suitable for the material and for air transport. Based on the foregoing, we are adopting the revised paragraph with editorial changes for clarity.

Section 178.274. Based on oral comment submitted to HM–215D, in paragraph (j)(6) the size of the ''NOT FOR RAIL TRANSPORT'' marking is revised from 20 cm (8 inches) to no less than 10 cm (4 inches) in height. We agree with the commenter's reasoning that 8 inches is excessive for portable tanks in that it could require a decal as long as 14 feet, 3 inches.

Section 178.705. We are correcting the paragraph (c)(1)(iv)(A) wall thickness table for metal IBCs. During the typesetting process of the HM–215D final rule (66 FR 33316), the headings for the IBC types were misaligned, and we are correcting them as presented in the HM–215D NPRM (65 FR 63294) published on October 23, 2000.

Section 178.812. In § 178.812(b)(1), we are adding the words ''with the load being evenly distributed,'' consistent with the wording in § 178.812(b)(2). This text is necessary to clarify that the test must not be conducted with the load unequally applied to an individual lifting device. Although we discussed this revision in the preamble of the NPRM, the word ''evenly'' was inadvertently omitted from the regulatory text.

Part 180

Section 180.350. We are amending § 180.350 by revising the section heading from ''Applicability'' to ''Applicability and definitions'' and by adding definitions for ''Remanufactured IBCs,'' ''Repaired IBCs'' and ''Routine Maintenance of IBCs.''

Section 180.352. Two paragraphs are revised and one new paragraph is added. Paragraph (d)(1)(i) is revised to specify that a repaired IBC must be retested and inspected in accordance with the applicable requirements in this section. Paragraph (f) is revised to require that a record of such tests performed on repaired IBCs must be kept by the IBC owner or lessee. Two commenters, DGAC and COSTHA, noted that with the proposed revision of paragraph (f), a portion of the existing text was omitted from the regulatory text. The unintentionally omitted text, which addresses record retention, is included in this final rule. In addition, as proposed, a new paragraph (d)(1)(iv) is added to specify a requirement for marking repaired IBCs. One commenter requested that we incorporate a provision from the UN Model Regulations to specify that tests performed in conjunction with repairs may be used to satisfy periodic testing requirements. Because the HMR currently does not prohibit tests in conjunction with repairs from being used to satisfy the periodic testing requirements, we do not believe this amendment is necessary. Several commenters asked that we include a marking requirement consistent with the UN Recommendations that applies to the routine maintenance of IBCs. Such a marking was not proposed in the NPRM and inclusion of such a requirement in the HMR is beyond the scope of this final rule.

Section 180.605. Paragraph (k) is revised to restore the inadvertently omitted inspection and test marking requirements for Specification DOT 51, 56, 57 and 60 portable tanks. The text, which was previously located in § 173.32, was omitted during the process of consolidating certain requirements and moving them to part 180 in the final rule, HM–215D. For the height of the marking when displayed on the portable tank, we are also revising the ''0.5 inches'' conversion for 12 mm to ''0.47'' inches consistent with § 178.3.

IV. Rulemaking Analyses and Notices

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is not considered a significant regulatory action under section 3(f) of Executive Order 12866. However, this final rule was informally reviewed by the Office of Management and Budget. This final rule is not considered a significant rule under the Regulatory Policies and Procedures of the Department of Transportation [44 FR 11034]. Benefits resulting from the adoption of the amendments in this final rule include enhanced transportation safety resulting from the consistent domestic and international hazard communications requirements, and continued access to foreign markets by domestic shippers of hazardous materials. This rulemaking applies to offerors and carriers of hazardous materials, such as chemical manufacturers, chemical users and suppliers, packaging manufacturers, distributors, battery manufacturers, and radiopharmaceutical companies.

The majority of amendments in this final rule should result in cost savings and ease the regulatory compliance burden for shippers engaged in domestic and international commerce, including trans-border shipments within North America. For example, cost savings will be realized by shippers and carriers as a result of the following:

- Eliminating the differences between proper shipping names, UN number assignments and hazard classification, including subsidiary hazards, between the HMR and international regulations. As a result of these changes, shippers and carriers would not have to re-mark or repackage hazardous materials that are offered in both domestic and international transportation.
- Providing certain exceptions including a placarding exception for sulfur and molten sulfur when the UN number is displayed on bulk packagings, and providing a packaging exception for large, hard-cased robust lithium batteries.

We are authorizing a delayed effective date and a one-year transition period to allow for training of employees and to ease any burden on entities affected by the amendments.

In addition, we recognize that there may be costs associated with two of the shipping paper amendments and we are providing extended compliance dates to minimize any costs associated with those amendments. We are authorizing an extended compliance date, until October 1, 2007, for the amendment requiring the types and numbers of packaging(s) (§ 172.202(a)(5)) to be entered on shipping papers. We are authorizing, until October 1, 2005, an extended transition period for the amendments requiring the subsidiary hazard class or division number to be entered on shipping papers (§ 172.202(a)(2)). We are also providing an extended compliance date of October 1, 2007, for package, marking and shipping paper requirements requiring replacement of the word ''inhibited'' with the word ''stabilized,'' and until October 1, 2005 for the proper shipping names affected by the removal of the word ''compressed.''

Many companies involved in domestic, as well as international operations, will realize economic benefits as a result of the adoption of amendments in this rulemaking. If the changes are not adopted, U.S. companies will be at an economic disadvantage by being forced to comply with a dual system of regulations. The total net increase in costs to businesses in implementing this rulemaking is considered to be minimal and a regulatory evaluation is available for review in the Docket.

B. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (''Federalism''). This rulemaking preempts State, local and Indian tribe requirements but does not propose any regulation that has substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazardous material transportation law, 49 U.S.C. 5101–5127, contains an express preemption provision (49 U.S.C. 5125(b)) that preempts State, local, and Indian tribe requirements on certain covered subjects. Covered subjects are:

(1) The designation, description, and classification of hazardous materials;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;

(3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous; or

(5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This final rule addresses covered subject items (1), (2), (3), and (5) above

and would preempt State, local, and Indian tribe requirements not meeting the ''substantively the same'' standard. This final rule is necessary to incorporate changes adopted in international standards, effective January 1, 2003. If the changes in this final rule were not adopted in the HMR, U.S. companies, including numerous small entities competing in foreign markets, would be at an economic disadvantage. These companies would be forced to comply with two systems of regulations. The changes in this rulemaking are intended to avoid this result. Federal hazardous materials transportation law provides at section 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of this final rule and not later than two years after the date of issuance. The effective date of Federal preemption is October 29, 2003.

C. Executive Order 13175

This final rule was analyzed in accordance with the principles and criteria contained in Executive Order 13175 (''Consultation and Coordination with Indian Tribal Governments''). Because this final rule does not have tribal implications, does not impose substantial direct compliance costs, and is required by statute, the funding and consultation requirements of Executive Order 13175 do not apply.

D. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities, unless the agency determines that a rule is not expected to have a significant impact on a substantial number of small entities. This final rule would serve to facilitate the transportation of hazardous materials in international commerce by providing consistency with international standards. This final rule applies to offerors and carriers of hazardous materials, some of whom are small entities, such as chemical users and suppliers, packaging manufacturers, distributors, and battery manufacturers. As discussed above, under *Executive Order 12866,* the majority of amendments in this final rule should result in cost savings and ease the regulatory compliance burden for shippers engaged in domestic and international commerce, including trans-border shipments within North America.

Many companies will realize economic benefits as a result of the amendments. If the changes in this final rule were not adopted, U.S. companies, including small entities competing in foreign markets, will be forced to comply with two systems of regulations to their economic disadvantage. Therefore, I certify that these amendments will not, if promulgated, have a significant economic impact on a substantial number of small entities.

This final rule has been developed in accordance with Executive Order 13272 (''Proper Consideration of Small Entities in Agency Rulemaking'') and DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts of draft rules on small entities are properly considered.

E. Paperwork Reduction Act

Information collection and recordkeeping requirements contained in this final rule were submitted to the Office of Management and Budget (OMB) for approval under the provisions of the Paperwork Reduction Act of 1995, Section 1320.8(d). Title 5, Code of Federal Regulations requires us to provide interested members of the public and affected agencies an opportunity to comment on information collection and recordkeeping requests. Under the Paperwork Reduction Act, no person is required to an information collection unless it has been approved by OMB and displays a valid OMB control number.

The new information collection requirements in this rule requiring additional shipping paper documentation, was submitted to OMB for review and approval on June 24, 2003. OMB approved this new information collection under OMB No. 2137–0613, ''Subsidiary Hazard Class and Number/Type of Packagings'' on June 25, 2003 until June 30, 2006. This new information collection, OMB Control Number 2137–0613, requiring the subsidiary hazard class or division number and number and type of packagings to be included on shipping papers increased the information collection burden. RSPA currently has an approved information collection under OMB Control Number 2137–0557, ''Approvals for Hazardous Materials'' with 18,405 burden hours and $415,237.40. There were minor editorial revisions for section designations with no change in the burden for OMB Control Number 2137–0557 under this rule. OMB approved this information collection request under OMB No. 2137–0557, ''Approvals for Hazardous Materials'' as proposed under this rule on December 20, 2002, until December 31, 2005.

OMB approved this information collection request under OMB No. 2137–0613, ''Subsidiary Hazard Class and Number/Type of Packagings'' as adopted under this rule on June 25, 2003, until June 30, 2006. We estimated total information collection and recordkeeping burden resulting from additional information required on shipping papers under the following new information collection to be:

''Subsidiary Hazard Class & Number/Type of Packagings''

OMB No. 2137–0613.
Total Annual Number of Respondents: 250,000.
Total Annual Responses: 6,337,500.
Total Annual Burden Hours: 17,604.
Total Annual Burden Cost: $216,705.
Total First Year Start Up Burden Hours: 45,705.
Total First Year Annual Start Up Cost: $1,115,992.

OMB approved the editorial changes under this rule with no increase in burden for OMB No. 2137–0557, ''Approvals for Hazardous Materials.'' The total information collection and recordkeeping burden is estimated as follows:

''Approvals for Hazardous Materials''

OMB Number: 2137–0557.
Total Annual Number of Respondents: 3,523.
Total Annual Responses: 3,874.8.
Total Annual Burden Hours: 18,405.
Total Annual Burden Cost: $415,237.40.

Requests for a copy of this information collection should be directed to Deborah Boothe or T. Glenn Foster, Office of Hazardous Materials Standards (DHM–10), Research and Special Programs Administration, Room 8422, 400 Seventh Street, SW., Washington, DC 20590–0001, Telephone (202) 366–8553.

F. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

G. Unfunded Mandates Reform Act

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $100

million or more to either State, local or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of the rule.

H. Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA) requires Federal agencies to consider the consequences of major Federal actions and prepare a detailed statement on actions significantly affecting the quality of the human environment. We developed an assessment to determine the effects of these revisions on the environment and whether a more comprehensive environmental impact statement may be required. Our findings conclude that there are no significant environmental impacts associated with this rule. Consistency in the regulations for the transportation of hazardous materials aids in the shipper's understanding of what is required and permits shippers to more easily comply with safety regulations and avoid the potential for environmental damage or contamination. An environmental assessment is available in the public docket.

List of Subjects

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

49 CFR Part 172

Education, Hazardous materials transportation, Hazardous waste, Labeling, Markings, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 173

Hazardous materials transportation, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

49 CFR Part 175

Air carriers, Hazardous materials transportation, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 176

Hazardous materials transportation, Maritime carriers, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 178

Hazardous materials transportation, Motor vehicle safety, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 180

Hazardous materials transportation, Motor carriers, Motor vehicle safety, Packaging and containers, Railroad safety, Reporting and recordkeeping requirements.

Issued in Washington, DC on July 21, 2003, under authority delegated in 49 CFR part 1.

Samuel G. Bonasso,

Acting Administrator.

[FR Doc. 03–19016 Filed 7–30–03; 8:45 am]

BILLING CODE 4910–60–P

DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

49 CFR Part 171

[Docket No. RSPA–99–5013 (HM–229)]

RIN 2137–AD21

Hazardous Materials: Revisions to Incident Reporting Requirements and the Hazardous Materials Incident Report Form

AGENCY: Research and Special Programs Administration, DOT.

ACTION: Final rule.

SUMMARY: RSPA is revising the incident reporting requirements of the Hazardous Materials Regulations and the hazardous materials incident report form, DOT Form F 5800.1. The major changes adopted in this final rule include: Collecting more specific information on the incident reporting form; expanding reporting exceptions; expanding reporting requirements to persons other than carriers; reporting undeclared shipments of hazardous materials; and reporting non-release incidents involving cargo tanks. These revisions will assure an increase in the usefulness of data collected for risk analysis and management by government and industry and, where possible, provide relief from regulatory requirements.

DATES: *Effective Date:* This final rule is effective July 1, 2004.

Compliance Date: Only the revised DOT Form F 5800.1 (01–2004) specified in this final rule will be accepted for incidents occurring on, or after July 1, 2004. Filers must use the previous DOT Form F 5800.1 (Rev 6/89) form for all incidents up to, and including June 30, 2004.

FOR FURTHER INFORMATION CONTACT: T. Glenn Foster, (202) 366–8553, Office of Hazardous Materials Standards, Research and Special Programs Administration or Kevin Coburn, (202) 366–4555, Office of Hazardous Materials Planning & Analysis, Research and Special Programs Administration.

SUPPLEMENTARY INFORMATION:

List of Topics

I. Background

Quality data that supports causal, trend, and risk analysis is fundamental to an effective safety program. The importance of data to the hazardous materials transportation safety program was highlighted in both a Department-wide initiative (ONE DOT Flagship Initiative on Hazardous Materials Handling/Incidents; ''HazMat Flagship'') which began in 1999 and a Department-wide Hazardous Materials Program Evaluation (HMPE) completed in 2000. The HazMat Flagship Initiative identified a set of new and ongoing actions relating to hazardous materials transportation that have the greatest potential impact on safety and program operation and that benefit from a cooperative approach. The HMPE used a multi-modal team to conduct a Department-wide program evaluation to document and assess the effectiveness of the Department's hazardous materials transportation safety program. The team's final report can be found at: *http://hazmat.dot.gov/hmpe.htm.*

Both the HazMat Flagship initiative and the HMPE emphasized the need to obtain more accurate and complete data on incidents. The hazardous materials transportation safety program relies on DOT Form F 5800.1, Hazardous Materials Incident Report, to gather basic information on incidents that occur during transportation and that meet specified criteria in § 171.16 of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171–180). The Research and Special Programs Administration (RSPA, we) last revised this form in 1989. In 2001, we received approximately 17,500 incident reports. RSPA uses the data and information reported by carriers to:

- Evaluate the effectiveness of the existing regulations;
- Determine the need for regulatory changes to cover changing transportation safety problems; and
- Identify major problem areas that should receive priority attention.

In addition, both government and industry use this information to chart trends, identify problems and training inadequacies, evaluate packagings, and assess ways to reduce releases.

Although the current incident report form provides useful information and is generally recognized as being fundamentally sound, there is room for improvement. We believe the opportunity exists to obtain better, more detailed information on events, such as more descriptive information to help determine root causes of events; to offer better linkages so that data can be coupled; and to better structure the report form to facilitate complete and accurate responses.

Our experience using data generated by the current form has identified certain deficiencies. Rulemakings such as Docket HM–225A, ''Revision to Regulations Governing Transportation and Unloading of Liquefied Compressed Gases,'' and Docket HM–213B, ''Safety Requirements for External Product Piping on Cargo Tanks Transporting Flammable Liquids,'' have demonstrated the difficulties involved with using DOT Form F 5800.1 data to determine precise failure modes and causes. These rulemakings also underscore the unreliability of reported incident cost information and the need to update this and other data as better information becomes available after initial submission of the form.

A study performed by the Argonne National Laboratory and the University of Illinois (National Risk Assessment for Selected Hazardous Materials Transportation) for RSPA used incident data as a basic input into the study, and recommended changes in a number of areas of incident data collection. Also, risk practitioners in government and industry offered suggestions for improved reporting of incident data in a white paper produced under the auspices of the Transportation Research Board.

The National Transportation Safety Board (NTSB) has issued several recommendations related to data collection and processing identified during the course of their investigations:

(1) NTSB Recommendation H–92–6 suggests establishment of a program to collect information necessary to identify patterns of cargo tank equipment failures, including the reporting of all accidents involving a DOT specification cargo tank, with or without a release of hazardous materials.

(2) NTSB recommendation R–89–52 suggests implementing regulations to ensure that there is formal feedback

from carriers to shippers when an incident has occurred.

(3) NTSB recommendation H–99–58 asks RSPA to establish a specific time period for reporting incidents meeting criteria in § 171.15 (telephonic notification).

Undeclared hazardous materials shipments, particularly in the air mode, are a serious safety concern within the Department. This issue received significant attention in the HazMat Flagship, and was recognized by the HMPE as an important area where better understanding of the frequency and impact of such shipments is essential. Data obtained through reporting discoveries of such shipments, whether or not the material is released, can help in defining the extent of the problem and in developing programs to mitigate the risk involved. DOT Form F 5800.1 is an efficient way to collect this data. Such data, even though it represents only undeclared hazardous materials that are discovered rather than the full spectrum of undeclared hazardous material shipments, can play a significant role in monitoring trends and measuring the effects of efforts to reduce undeclared shipments.

We are cognizant of the burden often imposed by regulatory requirements. As we developed changes to the incident reporting requirements, we attempted to minimize any additional burden associated with the revised requirements. For instance, we are adding exceptions to reporting requirements for small releases of materials that pose the least hazard where sufficient data already exists to manage risk. Further, we have deleted certain data fields that ask for information that is obtainable from other sources, for example, land use at the incident site. In addition, we are allowing electronic submission of the form, such as through an internet-based form or through a bulk data transfer, in order to facilitate the process. An internet-based form will ask only the questions the reporter is required to complete, based on previous answers. Accepting the data through a bulk file transfer allows larger companies to configure reporting software for their particular operations, maintain the information electronically, and eliminate paper and postage.

As a result of a meeting between DOT and members of several trade associations concerning hazardous materials incident reporting, the Association of American Railroads (AAR) sponsored a workgroup with segments of the transportation community to discuss the DOT Form F 5800.1 and the reporting requirements of §§ 171.15 and 171.16. The workgroup meetings were held during the winter of 1997–98. Participants included representatives from all four transportation modes, RSPA, shippers, container manufacturers, and labor. The workgroup submitted recommendations to RSPA. We developed questions based on input from these meetings, the DOT modal agencies, other concerned individuals, and on our own initiative.

On March 23, 1999, we published an advance notice of proposed rulemaking (ANPRM; 64 *FR* 13943) that asked a series of questions regarding the need to change current reporting requirements or the incident report form. We received approximately 40 comments from industry associations, State and local governments, non-profit associations, and carriers. Based on these comments, we developed proposed regulatory language and published a notice of proposed rulemaking (NPRM; 66 FR 35155) on July 3, 2001. We identified ten general issues in the NPRM, which are reviewed in Section III of this document. RSPA received over 30 comments on the NPRM. RSPA's decisions on the proposals of the NPRM and review of these comments are discussed in Section III, below.

II. Current Requirements

Currently, § 171.15 requires carriers to immediately notify the National Response Center (NRC) after any incident that occurs during transportation in which, as a direct result of hazardous materials:

(1) A person is killed;

(2) A person receives injuries requiring his or her hospitalization;

(3) Estimated carrier or other property damage exceeds $50,000;

(4) An evacuation of the general public occurs lasting one or more hours;

(5) One or more major transportation arteries or facilities are closed or shut down for one hour or more;

(6) The operational flight pattern or routine of an aircraft is altered;

(7) Fire, breakage, spillage, or suspected contamination occurs involving shipments of radioactive material or infectious substances (etiologic agents);

(8) There has been a release of a marine pollutant in a quantity exceeding 450 L (119 gallons) for liquids or 400 kg (882 pounds) for solids; or

(9) A situation exists of such a nature (*e.g.*, a continuing danger to life exists at the scene of the incident) that, in the judgment of the carrier, it should be reported to the National Response Center even though it does not meet any other immediate notification criteria. Carriers may report any of these incidents involving aircraft to the Federal Aviation Administration (FAA) Security Field Office. In addition, certain incidents involving infectious substances must be reported to the Centers for Disease Control and Prevention (CDC).

Each carrier required to make a report under § 171.15 is also required to complete DOT Form F 5800.1 in accordance with § 171.16. Additionally, unless excepted, a carrier is required to submit DOT Form F 5800.1 for any incident occurring during transportation that results in an unintentional release of a hazardous material from its package or the discharge of any quantity of hazardous waste.

We use the data and information reported by carriers to:

(1) Evaluate the effectiveness of the existing regulations;

(2) Determine the need for regulatory changes to cover changing transportation safety problems; and

(3) Identify major problem areas that should receive priority attention. In addition, both government and industry use this information to chart trends, identify problems and training inadequacies, evaluate packagings, and assess ways to reduce releases.

In considering how to improve the incident report form, our primary objective was to ensure that useful information is collected in an efficient manner. We believe it is possible to improve the structure and format of the form to make it easier to understand and complete. To reduce the reporting burden on persons responsible for completing the incident report, we believe certain existing fields that ask for information that is obtainable from other sources can be deleted. We also believe it is appropriate to add information in certain areas where it can help determine future program direction and support measures of program effectiveness. For example, a good description of packaging performance, documenting both failures and successes, helps us define future requirements. In addition, undeclared hazardous materials is an area of significant safety concern to DOT, and the ability to identify the frequency and source of such shipments is an important factor in reducing their occurrence. A complete description of changes to the content of the form is provided in the following sections.

III. Summary of Issues, Comments and Changes

In the NPRM, RSPA proposed changes on the following ten issues. In this final rule, we discuss comments submitted to the docket, concerns raised by

commenters, and our decisions on each issue below:

(A) Electronic filing
(B) Revisions to the form
(C) One-call reporting
(D) Expansion of reporting requirements to persons other than carriers
(E) Exceptions to incident reporting
(F) Criteria for telephonic notification
(G) Updates to reports
(H) Reporting when no hazardous material is released during an incident
(I) Undeclared shipments of hazardous materials that do not result in a release
(J) Notifying shippers of incidents.

A. Electronic Filing

In the NPRM, we proposed to adopt a variety of electronic filing methods, including facsimile (fax), electronic mail (e-mail), and internet-based forms. Electronic filing of incident reports is consistent with the requirements of the Government Paperwork Elimination Act (GPEA), which generally mandates that, by October 2003, agencies accept electronic documents and electronic signatures for the transactions that they conduct with the public and regulated parties.

All commenters support an electronic filing option. Commenters state that fax, e-mail, and internet submissions should be available to facilitate reporting. However, some commenters also state that electronic filing should be optional rather than mandatory.

We agree that electronic filing of incident reports would reduce the reporting burden on industry and increase reporting flexibility. However, because of logistical obstacles, all means of electronic filing will not be immediately available. We are in the process of developing the capability to allow electronic submission of the form and bulk transfer, and will issue an advisory notification upon completion. Although initial systems available to receive electronic submissions are limited, they will be expanded in the future as new systems are implemented within the Department or as new technologies become available.

We will continue to accept filing of a paper form, but we will not require the reporter to submit duplicate copies of the form. In addition, we have revised language in the regulations concerning the retention of the report in order to facilitate electronic storage. We have removed the provision requiring approval from the Department of Transportation to retain copies at a location other than the reporter's principal place of business. Instead, we allow the reporter to store the report at a location other than the principal place of business if the report is available to the reporter's principal place of business 24 hours after a request by a representative of the Department. Often, electronic documents may be stored on a computer server that is not physically located at the person's place of business. Additionally, the storage location is not of paramount concern, provided the document can be produced in the specified time. This change allows more flexibility for storing electronic and physical copies of the reports.

B. Revisions to the Form

The proposed modifications to the data form were published in the **Federal Register** in a notice of proposed rulemaking (NPRM). These proposed modifications introduced new and revised data elements in the form. These revisions are intended to minimize burdens on the end user, while necessitating that the form be completed accurately.

As a result of these new requirements, as well as RSPA's intent to maximize the accuracy and completeness of the forms we receive, RSPA procured the services of the QED Group, LLC (QED) of Washington, DC to recruit both experienced and non-experienced users of the previous form to test the form proposed in the NPRM. QED convened a series of focus groups to provide RSPA with constructive feedback on the revised form.

The first focus group meeting took place on October 25, 2002, with a morning session attended by ten experienced filers and an afternoon session attended by four less experienced filers. Neither group indicated that major revisions to the layout of the draft form were necessary. However, we derived the following observations from this meeting:

- The form layout should be more compact than the version in the NPRM, but attention should still be paid to font size.
- The form should avoid the use of shaded regions, as these interfere with faxing.
- The form should explicitly identify the form and/or series number of the accompanying instructions, as well as URL information for instructions available online.
- Any such online instructions should contain links to the sections of the CFR cited, and should also contain links to definitions.
- There were no major issues or concerns with the graphics or other visual cues.
- Infrequent filers were concerned that the conditions for form filing were not presented all in one place. They suggested a different grouping of instructions, something along the lines of a ''Who—Why—When?'' section. Infrequent filers preferred a format similar to a flowchart (perhaps on a separate instruction page or worksheet) to walk them through the incident characteristics and help them arrive at a filing decision.

Considerations of an electronic form were not a major element of the discussions in this session. The most significant finding regarding the design of the electronic form was that large companies would prefer direct data exchange to a piecemeal filing of form information via the Web. Small companies, however, welcomed the Web interface primarily because of the potential for live HTML links to instructions, definitions and supporting regulations.

The second focus group meeting took place on November 22, 2002, with a morning session attended by seven experienced filers and an afternoon session attended by six less experienced filers.[1] The full QED report can be found in the Docket. Some of the comments received from this group included:

- In general, participants reacted very positively to the new electronic form. Participants appreciated having direct access to the instructions for completing the form in an electronic version.
- Replace the numeric values and alpha codes with check-boxes.
- Change the wording for the entry of failure codes for packaging from ''Enter up to 3 Codes'' to ''Enter up to 3 sets of Codes.'' They also suggested that a vertical line be drawn between each grouping of ''What Failed How Failed Cause(s) of Failure.''
- Air carriers indicated that for a hazardous material incident involving passenger baggage, there should be an ability to indicate the type of bag containing the item involved in the release, as well as any packaging within the bag.
- Language should be changed in Part 6 from ''Describe the package failure'' to something else since the report may not be in response to the failure of a package but due to some other hazardous material incident.
- Participants indicated that they would like the ability to save templates. These templates could be linked to a company- or location-specific password, and would store information such as reporting entity address, mode, and

[1] Other scheduled attendees of both sessions experienced work-related emergencies or had other difficulties that prevented them from participating in the focus group.

possibly even material information (for single-material handlers). Alternatively, some participants indicated that they would like to be able to host versions of these forms (with company-specific information already filled in) on their own intranets and post the reports to DOT databases from their own systems.

• Participants would like to enter the UN number of the hazardous material, and have a scripted lookup function enter everything else into the various fields from a table.

• Provide additional ''skip patterns'' and validation logic—for example, if the release is caused by a ''puncture,'' the program should make ''shell thickness'' a required data field and not allow the form to be saved or submitted if it is incomplete. Participants also mentioned that they would like relevant previous responses to gray out everything not applicable after item 23, and that item 23 itself should be linked to the response to 1(b). Similarly on item 27, if there are no fatalities, the numbers could be greyed out and ''tab'' could skip to the next valid item.

• Add ability to upload supplementary documentation/pictures, etc. on the part 6 page using an interface not unlike that for adding attachments to Web-based mail.

• Part 7 might be better as a dropdown box, since filers will probably supply a response that can be autocoded this way. This might save DOT time in having to back-code responses that fall into regular patterns such as ''enhanced training, accelerated repair schedule,'' *etc.*

• Participants stated that default values would be a good idea for the form. Having a default value for ''unknown'' might make it easier for DOT to identify missings/unknowns/not applicables, a frequent source of problems in data analysis from survey research.

• Measurement units entered throughout the form should be confined to a standard list and should exist in fields separate from the quantities field.

RSPA received numerous comments and questions on the proposed form layout. Several commenters mentioned the increase in the number of pages of the form. As we explained in the NPRM, the page numbers increased due to the addition of approximately 15 data fields to the basic incident information and the addition of more white space. The number of pages in the final version of the form actually only increased from 2 to 4 pages.

In considering how to organize and lay out the incident report form, our primary objective is to ensure that useful information is captured in an efficient manner. We are deleting certain existing fields that ask for information obtainable from other sources or that can be extrapolated from other fields. The questions ''Is material a hazardous substance?,'' ''Was the RQ met?,'' and the ''Land Use and Community Type'' fall into this category. Similarly, the ''Highway Type'' and ''Number of Lanes at a Vehicle Accident/Derailment site'' can be determined from other sources. In addition, the type of labeling or placarding fields offer limited benefit to safety improvements, and have not been included in the revised form.

Additional information in certain areas is needed to help determine future program direction and to support measures of program effectiveness. Separate fields for information on packing group, hazardous wastes, and toxic by inhalation materials would allow us to better identify the materials involved in incidents. Further, we believe the inclusion of cross-reference fields, such as the NRC report number and the shipper's and carrier's hazardous materials registration number, will help broaden the ties the incident data has with other Federal hazardous materials data.

We also believe gathering additional information on the types of persons who respond to incidents, the types of persons who are killed, injured or need to be evacuated, as well as how long evacuations or closures last, will contribute to incident risk analysis. The more detailed questions concerning air transport incidents and questions directed to specific types of packagings will allow for more focused review of where and how packages fail. Additionally, the ability to identify the frequency and source of undeclared hazardous materials shipments, an area of significant safety concern to DOT, is important to reduce their occurrence.

We are revising the packaging sections of the incident report form to eliminate duplicative and confusing formatting and to enable us to gather more specific packaging information. For example, we are replacing check boxes to identify damage to packagings with failure codes specific to each packaging type. The utilization of failure codes was one of the recommendations that came from the AAR workgroup discussed in Section I. The use of failure codes allows the preparer to select from a set of choices appropriate to the particular packaging type involved. Also, we believe use of terminology appropriate for the particular packaging type will help avoid confusion and ultimately make it easier for the preparer to complete the incident report. Although we have not adopted failure codes of the exact type and form recommended by AAR, we have revised the format of the codes on the form so that the first code element for ''What Failed'' corresponds to the specific point of failure followed by location codes. This allows for easy translation of the codes. The single AAR code corresponds to a specific sequence of codes to be entered on this form. Further, we recognize that the experience we gain with the early use of these failure codes may result in periodic changes as the set matures. The instructions invite suggestions for improvements to the failure codes.

The expansion will add about 15 data fields to the basic incident information. We believe the benefits to be gained by collecting more detailed information will require only minimal additional time to report these mostly short yes/no or fill-in-the-blank fields. In addition, we have provided space for recommendations or actions. The purpose of this section is not to assess blame or serve as a definitive statement relating to the root causes of an incident, but rather to gather ideas on preventing the recurrence of incidents. Such information can help identify common problems and may be used to support regulatory changes. Further, we have reformatted the incident report form to facilitate completion (*e.g.*, more white space and a more logical flow from item to item). While this reformatting has added two additional pages to the form, we believe that this design will improve accuracy and make the form easier to complete.

C. One-Call Reporting

In this final rule, we are adopting the proposal to eliminate the separate telephonic notification requirement to FAA for air shipments and to require all air carriers to report incidents subject to § 171.15(a) to the National Response Center (NRC). NRC would then make any subsequent notifications. NRC personnel are specifically trained on which notification requirements pertain to which entities, thus, this change should result in more accurate notification to parties with a need to know.

Only a few commenters addressed the one-call issue. In its comment, the California Highway Patrol (CHP) supported streamlining the calling process, but emphasized the need to alert state officials via 911. RSPA recognizes the difference between contacting emergency response officials and incident reporting to DOT. As the CHP states, ''* * * it is the local emergency response agency(s) who

handle the entire incident and nearly every instance bears the initial response burden and often the greatest opportunity to mitigate the adverse consequences.'' We reiterate that the one-call for reporting to the NRC is for incident reporting. In the case of any incident involving hazardous materials that requires immediate emergency response, the local authorities should be immediately notified. In addition, adoption of this requirement does not relieve a person from reporting discrepancies of hazardous material shipments transported by air. Discrepancies are those air shipments involving hazardous materials which are improperly described, certified, labeled, marked, or packaged, in a manner not ascertainable when accepted. Section 175.31 of the HMR requires, as soon as practical, a person to report by telephone to the nearest FAA Security Field Office a discrepancy relative to the shipment of a hazardous material following the shipment's acceptance for transportation aboard an aircraft.

The United Parcel Service (UPS) indicated its support for continuing reporting to the FAA Security Field Office in place of reporting to the NRC. UPS stated that ''* * * direct notification to the FAA by the person in physical possession of the hazardous material will result in more accurate notification * * *'' than notification to the NRC. UPS notes that ''* * * nothing in the administrative record provides a reasoned discussion of why elimination of direct FAA notification would result in more accurate incident reporting.'' A Presidential review of Federal release prevention, mitigation, and response authorities, conducted under the requirements of section 112(r)(10) of the Clean Air Act, as amended in 1990, found that the current reporting system was complex and confusing. In 1993, the National Response Team (NRT), comprised of multiple federal agencies, submitted a Report to Congress entitled ''A Review of Federal Authorities for Hazardous Materials Accident Safety.'' In this report the NRT recommended that streamlining the accident notification reporting requirements be further examined. The NRT found that the duplicative reporting requirements imposed by the various agencies was a burden.

The one-call reporting system is an attempt to streamline the process for federally mandated reporting of accidental discharges of hazardous materials. There are a variety of incident scenarios, that, under current Federal regulations, would require the reporting party to call multiple Federal agencies to notify them of an accidental release. Under the one-call system, the NRC receives all Federal telephonic notifications of hazardous materials incidents and then notifies all appropriate parties, ensuring that incident data is collected and maintained. Centralizing the collection of release notifications will result in improved data quality by ensuring that all release notification data is collected in a consistent and comprehensive manner.

D. Expansion of Reporting Requirements to Persons Other Than Carriers

Currently, the requirements for telephonic and written reporting of transportation incidents apply to carriers only. Operators of transportation facilities, such as marine terminals, who may not perform carrier functions are not required to report transportation incidents involving hazardous materials. Most commenters to the NPRM agree that the person in physical control of a hazardous material when an incident occurs during transportation should be responsible for reporting that incident. The Norfolk Southern Railway Company supports the proposal and notes ''the person in control * * * would be the person most knowledgeable about the incident.''

Many commenters note that a pending RSPA rulemaking that will define when a material is ''in transportation in commerce'' (Docket HM–223, NPRM published on January 27, 2001; 66 FR 59220) is an important factor in determining when and what entities would be required to report incidents. DuPont comments ''* * * this issue cannot be resolved until the DOT publishes a final rulemaking on Docket HM–223 Applicability of the Hazardous Materials Regulations to Loading/Unloading and Storage.'' A commenter associated with the F 5800.1 Task Force supports ''* * * the idea that the party having physical control of the material is the one who should be required to complete the report * * *'' but notes the relationship of Docket HM–223. ''If the final rule in HM–223 is promulgated as proposed, it would relieve parties, other than carriers from having to execute incident reports'' notes the commenter. He continues ''This would mean that consignors and consignees would not have to report incidents occurring during loading or unloading.'' The International Vessel Operators Hazardous Materials Association, Inc. (VOHMA) expands the concept further by questioning ''* * * who will actually be required to report an incident that occurs during the course of activities that might not be considered to be 'in transportation' and in fact, [we] wonder if the responsibility might then fall back on the last carrier.''

On October 30, 2003, we published a final rule under Docket HM–223 (68 FR 61906). Among other issues, the final rule clarifies the applicability of the HMR to specific functions and activities, including loading, unloading, and storage operations. Consistent with the Federal hazardous materials transportation law (49 U.S.C. 5101 *et seq.*), the final rule defines ''transportation'' to mean the movement of property and loading, unloading, or storage incidental to the movement. Transportation in commerce begins when a carrier takes physical possession of a hazardous material for the purpose of transporting it and continues until delivery of the package to its consignee or destination as evidenced by the shipping documentation under which the hazardous material is moving. The final rule defines ''loading incidental to movement'' to mean the loading by carrier personnel or in the presence of carrier personnel of packaged or containerized hazardous material onto a transport vehicle, aircraft, or vessel; for a bulk packaging, ''loading incidental to movement'' means the filling of the packaging with a hazardous material by carrier personnel or in the presence of carrier personnel. The final rule defines ''unloading incidental to movement'' to mean the removal of a packaged or containerized hazardous material from a transport vehicle, aircraft, or vessel or the emptying of a hazardous material from a bulk packaging after the hazardous material has been delivered to the consignee and prior to the delivering carrier's departure from the consignee facility or premises. Under the final rule, ''storage incidental to movement'' means storage by any person of a transport vehicle, freight container, or package containing a hazardous material between the time that a carrier takes physical possession of the hazardous material until the package containing the hazardous material is physically delivered to the destination indicated on a shipping document.

This final rule requires reporting of incidents under §§ 171.15 of 171.16 that occur during the time that the material is in transportation. Consistent with the definitions adopted in HM–223, incidents that occur during loading operations conducted by carrier personnel or in the presence of carrier personnel must be reported, as must incidents that occur during unloading operations conducted prior to a carrier's departure from the consignee's premises. Hazardous materials incidents

that occur during loading operations conducted by a shipper prior to a carrier's arrival at its facility to pick up the hazardous material or during unloading operations conducted by consignee personnel after the hazardous material has been delivered and the carrier has departed the premises are not required to be reported under §§ 171.15 and 171.16. Note in this regard that the HM–223 final rule changes the applicability of the HMR to rail tank car unloading operations conducted by consignee personnel, which are currently subject to the provisions of § 174.67. Under HM–223, such rail tank car unloading operations are not transportation functions and, thus, are not subject to incident reporting requirements.

Other commenters opposed the requirement in total. In addition to Docket HM–223 concerns, the Fertilizer Institute (TFI) and The National Propane Gas Association (NPGA) ''* * * contend that this change will increase the burden on industry.'' Additionally, they claim the ''* * * change will decrease the efficiency of RSPA's data collection'' because it is possible that more than one person will report the same incident. The Petroleum Marketers Association of America (PMMA) sees an increase in burden for industry and RSPA by ''* * * requiring procedural changes, additional training, and time'' for industry and the confusion caused by duplicative reporting will ''* * * decrease the efficiency of RSPA's data collection efforts and will not benefit its risk assessment.''

RSPA already receives duplicate reports and currently has a system for identifying duplicative reporting, thus the impact to RSPA should be minimal. In our Regulatory Evaluation, available in the HM–229 Docket (RSPA–99–5013–87), we discuss the additional cost to industry by adopting this proposal. We anticipate a minimal increase in the number of reports concerning incidents that occur during loading and unloading because these activities are already reported by carriers. Given the volume of handlings, however, we conservatively estimate a 2% increase in the number of reports concerning incidents that occur during loading and unloading.

RSPA also expects an increase in the number of reported incidents occurring in facilities where hazardous materials are stored incidental to transportation. An RSPA study conducted in 1998 estimates that many of the 800,000 daily shipments of hazardous materials involve consolidations, intermodal or intramodal transfers and in-transit storage, resulting in 1.2 million daily hazardous materials movements. We estimate that extending reporting requirements to in-transit storage facilities will increase the overall total number of reports by 10%.

The intent of this rule change is to collect spill information on incidents that occur while the hazardous material is in transportation. Since RSPA has jurisdiction over hazardous materials in transportation, excluding reporting on incidents that occur during in-transit storage creates an incomplete data set of hazardous materials incidents. In the past, RSPA has discovered such incidents only from sources such as press reports of the most serious incidents. The information will provide a more complete picture of incidents occurring throughout the transportation system.

In this final rule, we are requiring each person in physical control of a hazardous material while it is in transportation in commerce to report any incident that occurs while the material is in that person's possession. For example, an in-transit storage facility owner would have to report any event that meets the provisions of §§ 171.15 or 171.16 and that occurs during the time that a hazardous material is stored in transportation. Consistent with the definitions adopted in the HM–223 final rule, storage incidental to movement is storage by any person of a transport vehicle, freight container, or package containing a hazardous material between the time that a carrier takes physical possession of the hazardous material until the package containing the hazardous material is physically delivered to the destination indicated on a shipping document. Reports of incidents or releases that occur during incidental storage will provide more accurate and complete information regarding hazardous materials incidents.

In addition, we are revising § 171.21 to require the person responsible for reporting the incident, rather than the ''carrier,'' to make available all records and information pertaining to the incident.

E. Exceptions to Incident Reporting

As proposed in the NPRM, an incident meeting all of the following criteria would not be required to be reported:

(1) The shipment has not been offered for transportation or transported by air;

(2) None of the criteria in § 171.15(a) apply;

(3) The material is not a hazardous waste;

(4) The material is properly classed as—

(i) ORM–D; or

(ii) A Packing Group III material in Class or Division 3, 4, 5, 6.1, 8, or 9;

(5) Each package has a capacity of less than 20 liters (5.2 gallons) for liquids or less than 30 kg (66 pounds) for solids;

(6) The total aggregate release is less than 20 liters (5.2 gallons) for liquids or less than 30 kgs (66 pounds) for solids; and

(7) The material does not meet the definition of an undeclared hazardous material in § 171.8.

In the NPRM, we proposed to except small spills of low hazard materials from the reporting requirements. We wanted to require that an aggregate spill of 20 liters (5.2 gallons) or over for liquids or 30 kg (66 pounds) or over for solids of otherwise excepted hazardous materials be reported. For example, if twelve 5-gallon containers of a flammable liquid hazardous material in PG III are spilled, no incident report would be required unless the aggregate amount released from the twelve containers of the hazardous material is at least 5.2 gallons or one of the conditions in § 171.15(a) is met. Based on reports received over the past five years, we expect that the proposed exceptions would result in a sizeable net reduction of the total number of incident reports filed each year.

Most commenters agreed with the proposed new exceptions and suggested that we include additional reporting exceptions. The Reusable Industrial Packaging Association (RIPA) suggested that non-bulk packagings and IBCs containing residues should not be reported if a spill of the residue occurs. Safety-Kleen requested that hazardous wastes be included in the reporting exceptions. RSPA does not agree with either commenter. Since this information is used to determine the effectiveness of packagings, excluding packagings larger than what was proposed, even if they only contain a residue of a hazardous material, leaves out incidents we wish to include in our data set. In addition, hazardous wastes are generally not included in most exceptions, even if the regulations for materials only meeting the definition of a hazardous waste and no other hazard class are relatively minimal.

Some commenters were against expanding the reporting exceptions or noted that we risk limiting the data we collect concerning spills. Chevron/Phillips warns ''* * * the inclusion of many of the exceptions noted in HM229 [sic] may further reduce data that can be used to further risk management efforts.'' The International Brotherhood

of Teamsters ''* * * fears that RSPA will be relinquishing its authority to collect information about hazardous materials releases that can, and often do, lead to workers being exposed to hazardous materials.''

These expanded exceptions, as noted by several commenters, actually reduce some of the exceptions for paint and paint-related materials, and for limited quantities in Packing Group II. The Glidden Company calculates ''* * * the significant increase in reporting will require * * * an additional 175 to 180 reports per year.'' BASF states ''* * * this proposed change will significantly increase the burden on the paint manufacturing industry * * *'' and DuPont adds that the change ''* * * would escalate the cost with no corresponding increase in safety.'' Indeed, the exceptions presented in this final rule eliminate exceptions based on specific shipping names for paint and batteries. Instead, the exceptions in this final rule are based on the hazards the materials pose and quantities of those materials.

The original exceptions to spill reporting were implemented under Docket HM–36A (45 FR 73682) in 1980, before Packing Groups for materials were developed in Docket HM–181 (55 FR 57402 and 56 FR 66124). When Packing Groups were incorporated into the regulations, we did not revise § 171.16 to update the reporting exceptions in light of the Packing Group changes. In 1996, under a broad regulatory review, exceptions for limited quantities of Packing Group II and III materials were added under Docket HM–222B (61 FR 27166), but we did not conduct a thorough review of incident reporting, and the basis for reporting exceptions.

In reviewing the reporting requirements and the exceptions to reporting, we have determined that the data needs for releases of small amounts of low-hazard materials is low. We now have ample data from incidents over the past 20 years involving small releases of Packing Group III hazardous materials in small quantities to warrant a reporting exception. However, we have determined that incidents involving Packing Group II materials warrant reporting, even in these smaller quantities. These materials pose a greater hazard than Packing Group III materials, so packaging failures and other incidents will continue to be required to be reported in order to monitor and improve regulations. Thus, we have adopted the proposed exceptions published in the NPRM.

In addition, we are clarifying that the incident report requirements do not apply to minimal amounts of hazardous materials escaping: (1) Due to disconnecting a loading or unloading line or from the operation of venting devices (for which venting is authorized); or (2) from the manual operation of seals in equipment such as pumps, compressors, and valves during the normal course of transportation if the release does not trigger any of the provisions for a telephonic notification described in § 171.15 of this subpart and does not result in property damage.

F. Criteria for Telephonic Notification

Under current § 171.15 requirements, one of the criteria that triggers the requirement for immediate notification is property damage that exceeds $50,000. RSPA proposed removing this requirement. There were not many comments on this point. The CHP supported the proposal because ''quite often the true total costs associated with an incident will not be determined for a substantial period of time following an incident.'' We agree and are removing the monetary criterion.

We proposed to clarify the requirements for ''immediate notification'' by specifying that telephonic notification must be made as soon as practicable following the occurrence of an incident and in all instances within 12 hours after an event requiring notification. This revision also responds to NTSB recommendation H–99–58 to provide a specific time period to report an incident by telephone. NTSB recommended that a 2-hour time frame was preferable. Commenters note the difficulties in complying with a 2-hour response time. The Conference on Safe Transportation of Hazardous Articles, Inc. notes that ''* * * immediate reporting requirements should focus on obtaining response services that are required to gain control of an incident.''

RSPA understands contacting emergency response entities may be of primary concern immediately following an incident; however, notification of federal authorities through the NRC is also essential. The NTSB comments that railroads, under 49 CFR 840.3, are required to provide telephonic notification to NRC within 2 hours in the event of an accident resulting in a fatality, release of hazardous materials, or evacuation of the public, and within 4 hours after an accident resulting in damages exceeding certain limits. RSPA understands the circumstances involving remote highway incidents may be more difficult to address in the constrained time frame. We do not want to detract from the immediate emergency response efforts focused on amelioration of a spill, therefore we have clarified the requirements of ''immediate'' telephonic notification to be as soon as practical but no later than 12 hours after the occurrence of any incident.

G. Updates to Reports

In the NPRM, we proposed to require updates to the incident report form within one year under the following conditions:

(1) A death results from injury caused by a hazardous material;

(2) There was a misidentification of the hazardous material or package information on the incident report;

(3) Damage, loss or related cost that was not known when the initial report was filed becomes known; or

(4) Damage, loss, or related cost changes by $25,000 or more.

RSPA received several comments on updating reports. UPS commented that the requirement would be a ''* * * substantial burden for any carrier such as UPS * * *'' because it would have to monitor thousands of incidents per year to determine if any developments trigger an update. In addition, it noted that the requirement would ''* * * require a submitter to constantly update an incident report for one-year [sic] following its submission.'' Farmland Industries, Inc. mentions that if RSPA removes ''* * * cost as a requirement for telephonic reporting, consideration should be given to removing updated costs from an incident.''

DuPont does not support the proposal to update the report, even though the actual number of updates would be small. It does not believe ''* * * that a majority of the hazardous materials incidents reported would require updating because the quantities released are minimal.'' DuPont thinks the number of reports that would require updating are so minimal and ''* * * question if the small percentage that would qualify warrant a regulatory requirement for updating the reports.''

Other entities supported an updating requirement, with caveats. The Norfolk Southern Railway Company does not oppose the proposal, but feels the requirement to update based on a change of $25,000 in the costs of the incident would ''* * * serve no real purpose'' and would be burdensome to industry. Ashland, Inc. suggests that the costs requirement for updating the report be a $250,000 change and only if the cost changes by more than 10%. The F5800.1 Task Force also suggested including a 10% threshold.

We believe that substantive changes to the outcome of an incident should be

updated to ensure the accuracy and quality of the data we collect. Updated information provides a more meaningful approach to causal, trend, or risk assessment analysis. We are adopting the proposal to require updated incident reports for up to one year after the date of an incident for the following: (1) Death resulting from injuries caused by a hazardous material; (2) corrections to the identification of the hazardous material or package information; and (3) certain updated damage costs as additional information becomes available. Cost information would be updated when: (1) costs not known at the time the report was filed became known; or (2) original damage/cost estimates were revised by more than $25,000 or 10% of the original estimate, whichever is greater. In some cases, certain costs (such as decontamination and cleanup) may not be known within 30 days of the incident's occurrence, and would not be included in the initial incident report. In other cases, some costs (such as property damage) may be significantly higher than the original estimate. We estimate that about 800 incidents reported each year would require an update.

CHP mentions that updating the report should be streamlined for more accurate reporting. It is possible that in the future, with the advent of electronic data management systems, performing an update to the form may not require the re-submission of the DOT Form F 5800.1 form. Until that time, we will retain the current requirements for submitting updates.

Under § 171.21, persons required to report an incident are required to cooperate with any further investigation of that incident. In particular, incidents that we categorize as significant may require further investigation, or reports that are incomplete may require a follow-up.

H. Reporting When No Hazardous Material Is Released During an Incident

In the NPRM, we proposed to require certain incidents involving bulk packagings that do not result in release of a hazardous material to be reported. We stated that such information could provide a broader base for risk management in more critical transportation situations and that additional information could be used to gauge the performance and integrity of certain packagings. This proposal was in response to NTSB recommendation H–92–6, which requested that DOT implement a program to collect information necessary to identify patterns of cargo tank equipment failure, including the reporting of all accidents involving a DOT specification cargo tank. This request stems from the February 4, 1992 special investigation report on cargo tank rollover protection (PB92–917002). NTSB examined seven highway accidents in which cargo tanks overturned and hazardous materials were released through damaged closures or fittings on top of the tanks; none of the cargo tank shells had been breached. Among its conclusions were the following:

* There is inadequate information about the forces that can be encountered in a rollover accident and the extent to which rollover protection devices for cargo tanks can reasonably be designed to withstand these forces because neither the RSPA, the FHWA [Federal Highway Administration, now Federal Motor Carrier Safety Administration, or FMCSA], nor the industry has provided engineering modeling or other analysis to determine the magnitude of forces acting upon a cargo tank under different accident conditions, and
* The FHWA [now FMCSA] and the RSPA accident data bases are not adequate to identify important trends of potential problems related to the design and construction of bulk liquid cargo tanks.

Subsequently, in its report, NTSB recommends that RSPA ''implement, in cooperation with the FMCSA, a program to collect information necessary to identify patterns of cargo tank equipment failures, including the reporting of all accidents involving a Department of Transportation specification cargo tank.'' In an effort to minimize duplicative reporting of much of the same information, discussions with FMCSA and RSPA resulted in agreement that the F 5800.1 form would be suitable and appropriate to collect this type of information.

Most commenters oppose data collection for an incident that does not result in a release of hazardous materials. Commenters cite a number of reasons, the main ones being an increase in burden, an ambiguity in when a report was required, and the limited usefulness of the data collected under this proposal. The commenters made it clear that specific guidelines would be required to avoid what the National Tank Truck Carriers (NTTC) describe is a possible ''compliance trap'' due to varying definitions of ''damage'' from company to company and inspector to inspector. This point was raised numerous times. Utility Solid Waste Activities Group comments ''* * * that a specific definition of 'damage' is needed to evaluate the impact of this proposal.'' PMMA adds ''* * * the language of the proposed rule is vague.'' TFI and NPGA argue not only that the requirement ''* * * is vague and fails to give regulated parties the requisite certainty to enable compliance'' but also that the proposal ''* * * does not accomplish the desired goals of NTSB Recommendation H–92–6.'' The last comment seems to contradict NTSB's opinion, as NTSB was one of only two commenters agreeing with the proposal. The other was the Nuclear Energy Institute.

RSPA believes there is a need to collect this information as recommended by NTSB. The potential burden on operators is offset by the safety information that will be provided. For example, such reporting can provide information concerning packaging integrity, particularly the circumstances under which a packaging is able to withstand a collision or accident without releasing its contents. The incident data base is expanded to include ''near miss'' or ''close call'' incidents which, because of the quantity and type of hazardous materials present, have the potential for significant consequences.

Additionally, collecting this information allows for examination of the circumstances (packaging, procedures, training) to determine if there may be ways to avoid the actual set of incidents that pose the greatest risk. This information also provides an indication of a packaging's ability to survive forces encountered in the transportation environment. Finally, this data would provide ''success stories'' and illustrations of a packagings robustness. The converse is also true. If most times that a packaging is in an accident and its damage results in a hazardous materials release, it may point to the inadequacy of the packaging requirements. Accurate data will prevent safety gaps as well as aid in determining how to allocate limited funds of the regulated community to provide the greatest safety benefits.

However, RSPA also agrees with some of the concerns of the commenters. For example, the ONEDO–Nalco Company argues that smaller bulk packagings, such as IBCs, are handled, loaded, and unloaded more frequently than larger containers so that minor damage ''* * * is relatively common.'' TFI and NPGA noted that the NTSB recommendation focused only on cargo tanks, while RSPA's proposal expanded the concept to other bulk packagings. Therefore, in this final rule, RSPA is adopting the proposal only in regards to reporting damage to specification cargo tanks over a 1000-gallon capacity. In addition, we clarify what is reportable damage. Structural damage is damage considered

serious enough to bring into question the integrity of the cargo tank. A cargo tank that requires subsequent replacement or repair due to the damage sustained in the accident for other than cosmetic reasons falls into this category. Lading retention system consists of the basic containment (*e.g.*, tank) and any associated appurtenances or equipment (*e.g.*, piping and valves) that, if seriously damaged, could result in the release of the contents of the cargo tank. Examples of when an incident report is required and when one is not required follow. If there is doubt, the incident should be reported.

Incident report required	No incident report required
Damage to an outlet valve that affects seating and requires replacement.	Handle broken or knocked off valve—but otherwise undamaged.
Serious damage that, if worse, could have resulted in the loss of the contents of the cargo tank. Damage to outlet lines that contain hazardous materials during transportation are in this category.	Serious damage that, even if worse, would not have resulted in the loss of the contents of the cargo tank. Damage to outlet lines that are normally not charged during transportation are in this category.
Cargo tank damage that requires professional inspection or recertification to ensure it is capable of meeting requirements..	Minor damage that obviously will not affect continuation of the cargo tank in service.
Cargo tank damage that requires immediate or subsequent repair because of questions about cargo tank integrity.	Cargo tank damage that requires repair for cosmetic reasons only.

RSPA may address this issue in a future rulemaking if it determines that data needs require additional information for other bulk packagings. For instance, it is our understanding that AAR maintains extensive accident data that could be correlated to damage and releases. Access to this data or reports based on the data may negate future need for its collection via DOT F 5800.1. We will explore options in this area with the rail industry. In addition, information on damage to certified cargo tanks of 1000 gallons or more capacity that do not result in a release will be analyzed over the next several years to determine its usefulness in practice and if further rulemaking is needed.

I. Undeclared Shipments of Hazardous Materials That Do Not Result in a Release

Reducing undeclared shipments of hazardous materials is a high priority of the Department. Undeclared shipments are apt to be in substandard packages and undermine hazard communication that is vital in an emergency. Undeclared shipments, particularly when offered for transportation or transported by air, pose a significant safety problem because of the potential for improper packing, handling, and failure to communicate the hazard. Emergency responders and transportation workers are unaware of the presence of undeclared hazardous materials. Certain hazardous materials that are forbidden for air transportation may make their way onto a passenger-carrying or cargo-only aircraft, and may inadvertently be handled in an unsafe manner by transportation workers. In a hazardous material release from an undeclared shipment, the crew does not know what the hazardous material is, or what response measures to take.

Commenters agreed that undeclared shipments posed a great danger, however, many commenters did not support this proposal. While VOHMA agrees that undeclared shipments are ''* * * one of our most significant problems,'' it notes that carriers ''* * * lack the resources to remove such seals, unpack the container to inspect the cargo within * * *'' VOHMA also notes in its comments that ''[t]he carrier should not be held responsible by the regulations for declaring dangerous cargoes * * *'' Others supported the concern that this could put the carriers in a difficult position of being responsible to ensure that all shipments were prepared properly. Some commenters state that a reporting requirement specific to undeclared hazardous materials would expose their companies to undue liability and possible enforcement actions for accepting an undeclared shipment. Other commenters state that this requirement would place carriers in an enforcement role.

A number of commenters, including the Air Line Pilots Association, International (ALPA), CHP, and the NTSB support reporting undeclared shipments when discovered in transportation. ALPA states this problem is ''* * * one of, if not the greatest potential risks to passengers, aircraft, and crew.''

We believe that information on undeclared shipments should be collected and that the incident report form is the most accessible method for collecting such data. Requiring reports of undeclared hazardous materials discovered in transportation can help in several ways. For example, problem shippers can be identified, and outreach and enforcement can be used to reduce the chance of recurrence. In addition, reporting can also help define the extent of the problem, establish trends, and help gauge the effectiveness of efforts to reduce undeclared shipments. Such a requirement is consistent with the current emphasis by the Department on this area. Accordingly, RSPA is adopting, as proposed, the requirement to submit an incident report when an undeclared shipment of hazardous materials is discovered. This requirement applies to parties who are likely to discover undeclared shipments and who will benefit greatly from a reduction of such shipments, which is a goal of this rulemaking.

RSPA is sensitive to problems noted by commenters concerning the amount of information that is considered sufficient to give a person (other than the original offeror) actual or constructive knowledge of the presence of a hazardous material. In a separate proceeding (Docket No. RSPA–01–10380), RSPA is formulating additional guidance on the factors that enforcement agencies consider relevant to a determination whether a carrier knew or should have known that an ''undeclared'' shipment contained a hazardous material, based on comments submitted in writing and at a June 19, 2002 public meeting.

This rule does not change the ''knowingly'' standard for civil penalty liability in 49 U.S.C. 5123, nor does it create any increased duty to examine all packages for the presence of hazardous material or affect the responsibility of a carrier or other person to refuse to transport a package that it knows or should know contains a hazardous material. The requirement to report the discovery of an undeclared hazardous material is not intended to create a ''compliance trap.'' Enforcement action is focused on the person who initially offered the undeclared hazardous material for shipment, not the person who subsequently received a shipment that was not properly marked, labeled, placarded, and described on shipping papers. In addition, there is no basis for

enforcement action against a person who accepted or handled an undeclared hazardous material when it had no reason to know of the presence of the hazardous material.

J. Notifying Shippers of Incidents

We proposed to require the person responsible for completing an incident report to provide a copy of the report to the shipper whose packages were the subject of the report. This proposal responded to NTSB Recommendation R–89–52, that recommends requiring carriers reporting hazardous materials incidents under the provisions of § 171.16 to notify shippers whose hazardous materials shipments are involved. NTSB is concerned that shippers are not receiving information about packages that are prone to failure during transportation.

Some commenters who supported the proposal cited the importance this information could provide for the shipper in identifying problem packagings or methods. The Glidden Company indicated notification would provide it ''* * * with valuable information into possible reasons how and why packages are damaged in transport.'' This reasoning is echoed by BASF who stated that the notification would ''* * * provide valuable information into possible reasons for package failure or damage during transport,'' and also by Utility Solid Waste Activities Group who expressed ''* * * such notification could provide a strong safety incentive and would help prevent additional incidents where the offeror's packaging is at fault.''

Many other commenters opposed the proposal for a number of different reasons. One commenter stated that the incident report may not be forwarded to the appropriate company or person within that company, essentially eliminating the opportunity for corrective action. The Air Transport Association (ATA) stated that if there is a shipper's name and address on the shipping paper, it may not be the location from which the material was originally shipped. In addition, as VOHMA noted, ''Often, the carrier accepts the freight container from [a] forwarder listing that party as the shipper of record or consignor'' thus, making the original shipper impossible to find by the reporter of the incident. NTTC observed that carriers may not know the identity of the true shipper of a given product due to the intervention of forwarders, brokers, and third party logistics providers.

Other commenters stated that the reports were an increased burden for the reporter and many reports may be of little or no interest to shippers. Safety-Kleen asserted that ''* * * the majority of hazardous waste generators do not want to be notified when small amounts of material have leaked * * this [proposal] places an unfair burden on the hazardous waste carriers.''

We believe that some type of shipper notification is incorporated into most standard business practices to account for shipment tracking, product loss, or damage reporting by carriers and consignees, and may be replicated by the proposed notification. The comments of several shippers supported this view. For example, Norfolk Southern Railway Company stated it ''* * * already voluntarily provides copies to its shippers * * *'' and that ''* * * reports are sent to the shippers at the same time they are submitted to RSPA.'' Chevron/Phillips noted that companies ''* * * already support this activity and have detailed reporting requirements in contracts and service agreements.''

We agree with NTSB and others that there are benefits to shippers being made aware of incidents involving their packages; however, for the reasons discussed above we believe it is not appropriate to impose the burden of notification on incident reporters. We believe that RSPA, along with FAA, FMCSA, Federal Railroad Administration (FRA) and the United States Coast Guard (USCG) can do a better job of ensuring appropriate corrective action by selective notification of shippers and others, as warranted by analysis of incidents, and by working towards making incident report information generally available on RSPA's website. Notification from DOT would carry more weight and prompt a more immediate response from shippers. Also, enhanced analysis of incidents, as enabled by this final rule, will allow us to better identify problems involving packagings, including those problems that may occur at different locations of a company, or among different companies.

How incident data can be analyzed was demonstrated in 2001, when the Intermodal Hazardous Materials Program (IHMP) office reviewed incident data for companies whose shipments were involved in a high proportion of incidents relative to other shippers. Incident data from January 1998 to October 2000 served as a basis of the review. The analysis of this data revealed that a large number of incidents reported by carriers during this 34-month period involved shipments from a small number (less than 40) companies. The IHMP Director sent letters to these companies, informing them of their incidents and detailing the results of the IHMP incident analysis. Each letter included information on the numbers of yearly incidents, reporting carriers, types of commodities and packages involved, locations where the shipments originated, reported incident casual factors, and reported monetary damages.

The IHMP letters generated significant positive feedback from shippers and heightened their awareness to potential internal problem areas. Several companies expressed appreciation to DOT for notifying them about these incidents. Some shippers stated that they were unaware of these incidents, others that they had received only partial notifications from their carriers, and others were surprised to discover that summary incident data was readily available on RSPA's Office of Hazardous Materials Safety website. Where appropriate, shippers took action to reduce the likelihood of reoccurrence of incidents.

RSPA believes that this type of review and contact by DOT better serves the affected parties. We anticipate conducting ongoing analyses to detect problems, and are working closely with the modal administrations to improve analysis and information sharing capabilities.

The modal administrations will have access to incident data and information and may conduct similar reviews if they elect to do so. RSPA has provided FAA's Office of Internal Security and Hazardous Materials an electronic summary of all hazardous materials incidents reported since 1993. As FAA special agents conduct hazmat shipper inspections and shipper outreach visits, they will individually review a summary of relevant incident histories with each shipper. FAA and RSPA will develop a system to electronically share information concerning incidents, discrepancies, inspections, enforcement, exemptions, and registrations. This will assist in the identification and analysis of problems and trends related to transportation of hazardous materials and will be used to notify shippers, or others, when problems become evident. Until this system is developed and implemented, FAA will provide copies of incidents related to the air mode to the relevant shippers.

As previously indicated, summaries of incident information are currently available to all shippers and carriers at our website. Increasing awareness of this option and increasing ease of data access are additional avenues we will explore to ensure shippers are aware of

incidents involving materials they have offered for transportation.

Miscellaneous Issues

Publishing Reports on the Internet

RSPA received several comments concerning the availability of completed incident report forms through the internet via RSPA's website. Several commenters voiced concern about this issue, mainly citing privacy concerns. Currently, any completed incident report is considered a public document and available through RSPA. Making these public documents available through the internet would meet initiatives in the government to facilitate information collection through electronic means. However, any information that is currently withheld under existing law would remain withheld if incident reports are made available through the internet. RSPA will be reviewing this issue in the future; however, no additional rulemaking action is necessary to make these documents electronically available.

New Definitions

We are adopting a new definition in § 171.8 for ''unintentional release''. We are revising the definition for ''undeclared hazardous material shipment'' for further clarification.

Hazardous Waste Manifest

We are removing the requirement in § 171.16 to attach a hazardous waste manifest to the incident report form when a release involves a hazardous waste. The revised incident report form requires the hazardous waste manifest number to be reported and provides a field for entering the number. Through this reference, we will be able to access the hazardous waste manifest, if needed, through the appropriate officials. In addition, we are removing the requirements for: (1) An estimate of the quantity of waste removed from the scene; (2) the name and address of the facility to which it was taken; and (3) the manner of disposition of any removed waste. This information is already available as a result of EPA's hazardous waste manifest regulations; thus, continued reporting of this information to RSPA is unnecessary. Removing these requirements eliminates reporting information that is obtainable through other sources. Therefore, RSPA has adopted these amendments as proposed.

Record Retention Location

This final rule requires that an incident report must be retained for two years at either the reporter's principal place of business or another record retention site provided the report is available at the reporter's principal place of business within 24 hours of request. We are adopting this amendment as proposed, which removes the requirement to seek an approval to store the report at a place other than the reporter's principal place of business. Adopting this proposal will provide flexibility in maintaining records without the need for an approval from DOT. In addition, this allows electronic versions to be retained, even though the server the document is located on is outside the principal place of business.

Incidents at Registered Cargo Tank Facilities

In the NPRM, we asked a series of questions concerning fatalities that may occur at registered cargo tank repair facilities during cargo tank inspection and repair operations. Such fatalities generally result because hazardous materials residue in the cargo tank is not removed before work is done on the tank. We did not propose any changes specific to this issue in the NPRM, but asked for comments to assist us in determining whether we should propose to collect information concerning such accidents in a future rulemaking. Most of the commenters that addressed this issue, including NTTC and the International Brotherhood of Teamsters, supported collecting data on these accidents. One commenter, Farmland Industries, suggested that RSPA does not have the authority to require reporting of incidents that are not related to the actual transportation of a hazardous material.

On December 29, 1970, Congress enacted the Occupational Safety and Health Act of 1970 (OSH Act) for the purpose of assuring safe and healthy workplaces. Under the OSH Act, every employer engaged in a business affecting commerce has a general duty to furnish each of its employees a workplace free from recognized hazards causing, or likely to cause, death or serious physical harm. In addition, employers are required to comply with all safety and health standards issued under the OSH Act that are applicable to working conditions involved in their businesses. In accordance with OSHA standards, cargo tank repair facilities must report accidents to OSHA or to a state agency responsible for occupational safety and health, if appropriate. OSHA data for the period 1985–1997 indicate that there were 17 fatalities during the period resulting from repair work performed on cargo tanks. The OHSA incident reports clearly conclude that the cause of these incidents was a failure to comply with existing OSHA and/or HMR requirements. Because OSHA already collects fairly detailed reports concerning accidents at cargo tank repair facilities, we do not believe that imposing an additional reporting requirement is necessary or appropriate.

State Notification

We were contacted by a state official who requested that we require incidents meeting the immediate notification criteria in § 171.15 to be reported to the State in which the incident occurred. We disagree. A State may require immediate, oral accident/incident reports for local emergency response purposes. Further, any State may request that NRC notify it of incidents occurring within the State.

IV. Summary and Conclusion

The following are the major changes to the current HMR reporting requirements and to DOT Form F 5800.1 that we are making in this final rule:

(1) Reporting of incidents involving a specification cargo tank with a capacity of 1,000 gallons or greater that receives structural damage that may adversely affect the cargo tanks's ability to retain lading even when no hazardous material in released.

(2) Reporting discoveries of undeclared hazardous material shipments.

(3) Updating incident reports when significant new information becomes available.

(4) Requiring the person in physical control of a hazardous material during transportation to report an incident.

(5) Excepting small releases of specified materials that pose the least hazard from reporting requirements.

(6) Restructuring the form to utilize failure codes to obtain information on packaging failures.

V. Regulatory Analyses and Notices

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is not a significant regulatory action under Section 3(f) of Executive Order 12866 and, therefore, was not reviewed by the Office of Management and Budget. This rule is not a significant regulatory action under the Regulatory Policies and Procedures of the Department of Transportation (44 *FR* 11034). A regulatory evaluation that considers various regulatory alternatives is available for review in the public docket.

The costs of these regulations identified in the regulatory evaluation

are attributed to: (1) Expansion of reporting requirements to persons other than a carrier in possession of a hazardous material during transportation; (2) implementation of a requirement to update incident reports under certain conditions; and (3) expansion of reporting requirements to incidents involving cargo tanks where no hazardous material is released. Reductions in the total costs associated with incident reporting requirements are attributed to implementation of an electronic filing option and expansion of current exceptions to the reporting requirements. The expected reductions in total costs generally offset the anticipated cost increases; thus, the requirements of the final rule should result in only minimal increased costs of compliance.

While it is difficult to estimate the net benefit resulting from this rulemaking, we believe that the revisions to the incident reporting requirements will greatly enhance our ability to develop strategies to reduce the risks associated with the transportation of hazardous materials. The non-quantifiable benefit of increased safety through reducing the incidence of undeclared shipments is expected to be far greater than the negligible cost increase to the regulated community.

B. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (''Federalism''). This final rule preempts state, local, and Indian tribe requirements, but does not propose any regulation with substantial direct effects on the states, the relationship between the national government and the states, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazardous materials transportation law, 49 U.S.C. 5101–5127, contains an express preemption provision (49 U.S.C. 5125(b)) that preempts state, local, and Indian tribe requirements on certain covered subjects. Covered subjects are:

(1) The designation, description, and classification of hazardous materials;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;

(3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; or

(5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a package or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This final rule addresses covered subject item number 4 above and preempts state, local, and Indian tribe requirements not meeting the ''substantively the same'' standard. This final rule is necessary to increase the usefulness of data collected for risk analysis and management by government and industry and, where possible, provide relief from regulatory requirements.

Federal hazardous materials transportation law provides at § 5125(b)(2) that, if we issue a regulation concerning any of the covered subjects, we must determine and publish in the **Federal Register** the effective date of Federal preemption. The preemption date of this rule is January 1, 2004.

C. Executive Order 13175

This final rule has been analyzed in accordance with the principles and criteria contained in Executive order 13175 (''Consultation and Coordination with Indian Tribal Governments''). This final rule does not have tribal implications, does not impose substantial direct compliance costs, and is not required by statute. Consequently, the funding and consultation requirements of Executive Order 13175 do not apply.

D. Executive Order 13272

This final rule has been developed in accordance with Executive Order 13272 (''Proper Consideration of Small Entities in Agency Rulemaking'') and DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts of draft rules on small entities are properly considered.

E. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities unless the agency determines a rule is not expected to have a significant impact on a substantial number of small entities. Based on the assessment in the final regulatory evaluation, I hereby certify that, while the final rule applies to a substantial number of small entities, there will not be a significant economic impact on those small entities. A detailed Regulatory Evaluation is available in the Docket.

Potentially affected small entities. The revisions in this final rule will apply to persons in physical control of a hazardous material during transportation in commerce. Such persons primarily include motor carriers, air carriers, vessel operators, rail carriers, temporary storage facilities, and intermodal transfer facilities. Unless alternative definitions have been established by the agency in consultation with the Small Business Administration, the definition of ''small business'' has the same meaning as under the Small Business Act (15 CFR Parts 631–657c). Therefore, since no such special definition has been established, RSPA employs the thresholds (published in 13 CFR 121.201) of 1,500 employees for air carriers (NAICS Subgroup 481), 500 employees for rail carriers (NAICS Subgroup 482), 500 employees for vessel operators (NAICS Subgroup 483), $18.5 million in revenues for motor carriers (NAICS Subgroup 484), and $18.5 million in revenues for warehousing and storage companies (NAICS Subgroup 493). Of the approximately 116,000 entities to which the proposals in this final rule would apply (104,000 of which are motor carriers), we estimate that about 90 percent are small entities. Based on historical data, we estimate approximately 17,810 annual responses.

Potential cost impacts. The revision to expand reporting requirements to any person in physical possession of a hazardous material while it is being transported in commerce will primarily affect storage and in-transit storage facilities. We estimate there are approximately 6,500 warehousing and storage entities subject to this requirement which will incur the total increased compliance costs of about $84,000. We estimate that expanding the reporting requirements will increase the number of incident reports submitted each year by about 11.45 percent of the 17,810 total annual responses, or approximately 2,180 reports. Taken on a one-to-one report to entity ratio, we estimate a cost of approximately $39/year/company.

The revision to require updating of incident reports under certain conditions applies to all persons subject to the HMR incident reporting regulations. We estimate that this final rule will result in about 800 additional updates to reports each year for a total annual cost of $4,800. Taken on a one-to-one report to entity ratio, we estimate a cost of $6.00/year/company.

The revision to require reporting of certain incidents involving cargo tanks that do not result in a release of hazardous materials will apply to about 104,000 motor carriers. We estimate that this revision will result in about an increase of about 16 percent of the 17,810 total annual responses, or approximately 2,975 additional incident reports each year. On a one-to-one report/entity basis, motor carriers will incur increased compliance costs of approximately $114,240 or about $38/year/company.

The revision to require reporting of undeclared shipments of hazardous materials discovered during transportation will apply to all persons subject to the HMR incident reporting regulations. We estimate that this final rule will result in an increase of approximately 8 percent of the 17,810 incidents reports submitted each year, or approximately 1,500 reports. Taken on a one-to-one report/entity ratio, we estimate the corresponding increased compliance costs of $57,600 to be approximately $38/year/company.

Potential cost savings. The revision in the final rule that will permit electronic filing of incident reports and expand the current exceptions from incident reporting requirements will offset the increased compliance costs described above. The potential savings attributable to the revisions to the final rule total about $276,000. The additional potential costs attributable to the revisions to the final rule total about $275,712, for a net savings of approximately $300.

Consideration of alternate proposals for small businesses. The Regulatory Flexibility Act suggests that it may be possible to establish exceptions and differing compliance standards for small businesses and still meet the objectives of the applicable regulatory statutes. However, given the large numbers of small businesses, as defined for purposes of the Regulatory Flexibility Act, in hazardous materials transportation, we do not believe that it would be possible to establish such differing standards and still accomplish the objectives of federal hazardous materials transportation law. The information provided in hazardous materials incident reports serves as the basis for critical RSPA safety functions, including identification of safety problems, regulations development, training programs, outreach efforts, and enforcement strategies. The risks posed by a hazardous material offered for transportation or transported by a small entity are the same as the risks posed by the same hazardous material when offered for transportation or transported by a large entity. Thus, it is entirely reasonable and appropriate for the HMR incident reporting requirements to apply equally to any person who offers for transportation or transports hazardous materials in commerce.

Conclusion. Based on the above analysis, we certify that while the revisions in this final rule will affect a significant number of small businesses or other small entities, there will be no substantial economic impact on these small businesses.

F. Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995, no person is required to respond to a collection of information unless it displays a valid Office of Management and Budget (OMB) control number. Section 1320.8(d), Title 5, Code of Federal Regulations requires that RSPA provide interested members of the public and affected agencies an opportunity to comment on information collection and recordkeeping requests. RSPA has a current information collection approval under OMB No. 2137–0039, Hazardous Materials Incident Reports.

The average number of incident reports RSPA received for the years 1997—2000 is about 17,300, and for the years 1995—2000 is about 16,000. Our regulatory evaluation for this final rule uses a base number of 17,000 annual incident reports.

As a result of this final rule, there was a modest increase in annual burden and costs. OMB approved this information collection as proposed under this rule on August 30, 2001. The following figures are based on receiving 17,000 incident reports per year and only include estimates for written incident reports:

Total Annual Respondents: 1,781.
Total Annual Responses: 17,810.
Total Annual Burden Hours: 23,746.
Total Annual Burden Cost: $569,904.

Requests for a copy of the information collection should be directed to Deborah Boothe or T. Glenn Foster, Office of Hazardous Materials Standards (DHM–10), Research and Special Programs Administration, Room 8102, 400 Seventh Street, SW, Washington, DC 20590–0001, Telephone (202) 366–8553.

G. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

H. Unfunded Mandates Reform Act

This final rule imposes no mandates and thus does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It would not result in costs of $100 million or more to either state, local, or tribal governments, in the aggregate, or to the private sector.

I. Environmental Assessment

The revisions in this final rule will increase the quality of data collected on hazardous materials spills, increasing our ability to evaluate potential packaging problems that result in releases to the environment. Thus, the revisions should produce a small net benefit to the environment by improving the data sources used in regulatory development. Therefore, we find that there are no significant environmental impacts associated with this final rule.

List of Subjects

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Reporting and record keeping requirements.

Issued in Washington, DC on November 19, 2003 under the authority delegated in 49 CFR Part 1.

Samuel G. Bonasso,

Deputy Administrator, Research and Special Programs Administration.

DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

49 CFR Part 171

[Docket No. RSPA–99–5013 (HM–229)]

RIN 2137–AD21

Hazardous Materials: Revisions to Incident Reporting Requirements and the Hazardous Materials Incident Report Form; Correction

AGENCY: Research and Special Programs Administration (RSPA), DOT.

ACTION: Final rule; response to appeals and correction.

SUMMARY: On December 3, 2003, RSPA published a final rule under Docket No. RSPA–99–5013 (HM–229) to update and clarify requirements in the Hazardous Materials Regulations applicable to incident reporting requirements and the Hazardous Materials Incident Report (HMIR) DOT Form F 5800.1. In response to appeals submitted by persons affected by the December 3, 2003 final rule, this final rule amends certain requirements, and makes minor editorial corrections. This final rule is effective January 1, 2005. The effective date for the final rule published on December 3, 2003 has been extended from July 1, 2004 to January 1, 2005.

DATES: *Effective Date:* This final rule is effective on January 1, 2005. The effective date for the final rule published on December 3, 2003 has been extended from July 1, 2004 to January 1, 2005. Only the revised DOT Form F 5800.1 (01–2004) specified in this final rule will be accepted for incidents occurring on or after January 1, 2005. Filers must use the previous DOT Form F 5800.1 (Rev 6/89) form for all incidents up to and including December 31, 2004.

FOR FURTHER INFORMATION CONTACT: T. Glenn Foster, (202) 366–8553, Office of Hazardous Materials Standards, Research and Special Programs Administration, or Kevin Coburn, (202) 366–4555, Office of Hazardous Materials Planning & Analysis, Research and Special Programs Administration, U.S. Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590.

SUPPLEMENTARY INFORMATION:

I. Background

On December 3, 2003, the Research and Special Programs Administration (RSPA, we) published a final rule under Docket HM–229 (68 FR 67746) revising incident reporting requirements of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171–180) and the Hazardous Materials Incident Report Form DOT F 5800.1. Specifically, the final rule:

- Revised the hazardous materials incident report form;
- Provided for electronic filing of incident reports;
- Established one-call reporting of hazardous materials incidents;
- Expanded reporting requirements to persons other than carriers;
- Expanded reporting exceptions;
- Provided criteria for telephonic notification;
- Provided criteria for updates to incident reports;
- Required reporting of undeclared shipments of hazardous materials;
- Required reporting of non-release incidents involving cargo tanks;
- Provided definitions of ''Undeclared Hazardous Material'' and ''Unintentional Release''; and
- Eliminated redundant or unnecessary regulations. In addition, the December 3 final rule revised the HMR to address three recommendations from the National Transportation Safety Board (NTSB):
- Consistent with NTSB Recommendation H–92–6, established a program to collect information necessary to identify patterns of cargo tank equipment failures, including the reporting of all accidents involving a DOT specification cargo tank, with or without a release of hazardous materials.
- Consistent with NTSB recommendation R–89–52, set forth procedures being implemented to ensure there is feedback to shippers when an incident has occurred.
- Consistent with NTSB recommendation H–99–58, established a specific time period for reporting incidents meeting criteria in § 171.15 (telephonic notification).

II. Appeals

The following organizations and one individual submitted appeals to the December 3, 2003 final rule, in accordance with 49 CFR Part 106: The Air Transport Association (ATA-Air); the American Trucking Associations (ATA-Trucking); the Association of American Railroads (AAR); the National Propane Gas Association (NPGA); the National Tank Truck Carriers, Inc. (NTTC); the Petroleum Transportation & Storage Association (PTSA); and Mr. John V. Currie. The appellants expressed concern about several revisions included in the final rule. In addition, two appellants asked for a revision to the effective date of the final rule. The issues raised by the appellants are discussed in detail below.

A. Appeals Granted

Electronic Filing—The December 3 final rule revised § 171.16 (b) to require each person reporting under this section to submit a written or electronic HMIR to the Information Systems Manager at the Research and Special Programs Administration. Mr. John Currie stated that as drafted, § 171.16(b)(1) could be interpreted to require both the submission of a written and electronic HMIR. We agree that the language is unclear and could lead to unnecessary submissions of duplicate reports. Therefore, in this final rule, we are adding the word ''or'' between the addresses for written and electronic submittal of the HMIR to clarify that either a written or electronic report must be submitted, not both.

Revised Hazardous Materials Incident Form DOT F 5800.1—The December 3 final rule revised the HMIR Form DOT F 5800.1 and instructions. AAR requested that RSPA reconsider eliminating certain required information on the HMIR that AAR considers unnecessary and difficult to obtain. AAR notes that, as drafted, the instructions following Item 23 instruct the filer to skip Part III ''Packing Information'' and proceed to Part IV, which AAR believes was not RSPA's intent. However, if Part III is to be completed, AAR takes issue with two points related to Item 28, found in Part III. The first point is discussed here; the second point can be found under the ''Appeals Denied'' section of this document.

Item 28 requires the identification of the manufacturer and model number for any valve or device that failed on a tank car. AAR stated that this poses a problem if the specification plates containing this information are missing or obscured. The builder of the tank car may not be able to provide this information on the HMIR if subsequent owners or lessees have changed valves. Railroads would be compelled to rely on the efforts of car owners for this information in order to complete the required entry on the incident report form. This reliance on an outside party could jeopardize the thirty-day filing requirement. AAR believes RSPA should require this information to be clearly marked on valves and other devices at all times, if RSPA determines it is necessary.

We agree with AAR's comment regarding reference to the guidance immediately following Item 23 of the HMIR. As drafted, the instructions omit Part III and instruct the filer to proceed

directly to Part IV for a hazardous materials incident, or a specification cargo tank 1,000 gallons or greater containing any hazardous material that received structural damage to the lading retention system that requires repair and did not have a release. This was not our intent. One of our objectives is to acquire accurate and complete data on incidents. In this final rule, we are removing the supplemental guidance immediately following Item 23 from the HMIR.

We also agree with AAR's concern regarding reporting the manufacturer and model number for any valve or device that failed on a tank car. In this final rule, we are retaining the requirement to specify the ''type'' of valve or device that failed during an incident. However, we are amending the requirement to provide the manufacturer and model number for any valve or device that failed on a tank to include the words ''if present and legible.''

B. Appeals Denied

Effective Date of the Final Rule—The December 3, 2003 final rule established the effective date of this rule as July 1, 2004. ATA-Air and ATA-Trucking request RSPA to reconsider the July 1, 2004 effective date. ATA-Air requests that RSPA allow carriers to begin complying with the new rules (other than those applicable to discoveries of undeclared hazardous materials) earlier than July 1, 2004. ATA-Air notes that many companies have pre-established training schedules and could begin their employees on the new requirements immediately. In addition, rather than expecting employees to retain the new incident reporting information for several months, the Association contends it would be beneficial to apply the training immediately. The appellant sees no potential concern if the carriers begin following the revised requirements earlier than currently required.

ATA-Trucking recommends that RSPA delay the effective date for 12 months following the publication of guidance implementing the electronic filing procedures and provide a three-month transitional period for the new system. The appellant states industry bears significant costs, including the revision of internal computer software and employee training, whenever an information requirement is revised. The appellant asserts the July 1, 2004 effective date would not provide industry adequate time to train its employees. In addition, this appellant notes the HM–229 NPRM called for the implementation of a variety of electronic filing methods, including facsimile, electronic mail, and internet-based filing options. The appellant states the final rule does not provide for electronic filing. Instead, RSPA indicated that it is ''in the process of developing the capability to allow electronic submission of the form and bulk transfer, and will issue an advisory notification upon completion.'' ATA-Trucking explains that, ''* * * depending upon the date electronic filing options go live, motor carriers will have to train their employees on the new form and then subsequently train them to implement the electronic filing options.'' The appellant contends this ''* * * will force industry to incur unnecessary training expenses.'' ATA-Trucking also believes ''there should be a period of time (*i.e.,* three months) following the effective date, where the use of the existing HMIR form would result in a formal warning, rather than a notice of violation and civil penalty.'' The appellant believes a provision by RSPA ''* * * would help companies with multiple facilities train each potentially affected person,'' thus avoiding situations of non-compliance. The appellant notes that because most companies have already approved technical and informational projects for 2004 and finalized their 2004 capital budgets, it will be difficult to implement an informational change before the 2005 budget year. RSPA does not agree that we have not addressed electronic filing methods. We fully anticipate an operational electronic system by the effective date of the final rule, which, as previously stated, is the earliest date the revised form will be accepted. RSPA also recognizes that filers of the revised incident report may benefit from a tutorial phase for training purposes and orientation, and anticipates an interactive incident report form on our Web site prior to the effective date. This development will provide accessibility by filers and downloading capabilities of the revised form. In addition, RSPA is making available a dedicated facsimile phone line to facilitate this alternate reporting option. We are reconfiguring our computer software programs to accept electronic submissions via the Web site, and providing an electronic version of the form that can be completed, printed, and mailed or faxed to RSPA. Finally, a bulk transfer system is being developed to allow for batch transmittals of multiple incident reports. We reiterate that an advisory notification will be issued upon completion and availability of these alternate methods of incident report filing. We do not agree that an immediate effective date, nor a delay of the effective date for 12 months following the publication of guidance implementing the electronic filing procedures with a three-month transitional period for the new system, is necessary, therefore these appeals are denied. However, we are extending the effective date until January 1, 2005 to provide companies with additional time for training and familiarization with the new HMIR. We reiterate that only the revised DOT Form F 5800.1 (01–2004) specified in this final rule will be accepted for incidents occurring on or after January 1, 2005. Filers must use the previous DOT Form F 5800.1 (Rev 6/89) form for all incidents up to and including December 31, 2004.

Expansion of Reporting Requirements to Persons other than Shippers—The December 3 final rule revised the HMR to expand the requirement to report incidents to the person in physical possession of a hazardous material at the time an incident occurs during transportation.

ATA-Trucking states that RSPA is ''* * * handcuffed by the jurisdictional decisions made in connection with the HM–223 rulemaking'' and ''* * * has excluded unloading activities performed by non-carrier personnel from the scope of the hazardous materials incident reporting requirements.'' The appellant asserts that ''* * * RSPA's decision to exclude activities performed by the consignee will reduce the *quantity* of hazardous materials incident reports by RSPA.'' In addition, it states that ''* * * the *quality* of the information RSPA receives will be impacted, as the data will be over-weighted with packaging failures that occur during accidents, while the number of reports received from packaging failures that occur under normal conditions of transportation and are only discovered during the unloading process will be artificially under-weighted.'' RSPA's ''* * * decision to exempt consignees from the requirement to complete incident reports undermines the fundamental purpose of the Hazardous Materials Incident Reporting system, which is to collect meaningful data on the performance of DOT packaging standards under conditions normally incidental to transportation.'' ATA-Trucking recommends RSPA reconsider this aspect of the final rule and expand the hazardous materials incident reporting obligation to individuals responsible for the unloading of hazardous materials.

We disagree. The reporting requirements found in §§ 171.15 and 171.16 pertain to incidents that occur

during transportation, including storage incidental to transportation. The issues posed by the appellant concern whether incidents involving pre-transportation functions are reportable under §§ 171.15 and 171.16. While pre-transportation functions, such as shipper loading operations when a carrier is not present, are regulated under the HMR, they have not been and are not subject to the incident reporting requirements under this rulemaking because incidents related to pre-transportation functions occur prior to the beginning of transportation in commerce. Therefore, the status of reporting these pre-transportation functions has not been changed by either the HM–229 or HM–223 (68 FR 61905) final rules. Regarding our decision to exempt consignees from incident reporting, we point out that consignees have never been subject to incident reporting (except for consignees unloading rail cars in accordance with § 174.67). The clarifications in HM–223 are consistent with our long-standing interpretations of our statutory authority. In addition, we note that carrier reports, including reports by carriers involved in unloading hazardous materials at consignee facilities, are and have been sufficient to enable us to receive accurate information about packaging failures that occur during normal transportation operations. For these reasons, the ATA-Trucking's appeal concerning the expansion of reporting requirements to the person in physical possession of a hazardous material at the time an incident occurs in transportation is denied.

Reporting Non-Release Incidents Involving Cargo Tanks—The December 3 final rule requires an HMIR be submitted when a specification cargo tank with a capacity of 1,000 gallons or greater containing any hazardous material suffers structural damage to the lading retention system or damage that requires repair to a system intended to protect the lading retention system, even if there is no release of hazardous material. NTTC, ATA-Trucking, NPGA, and PTSA appealed this provision on the basis that it: (1) Is vague; (2) removes the certainty of whether to file an incident report; (3) could not be enforced in an equitable manner; and (4) places carriers in a compliance trap. The appellants recommend the provision either be deleted or modified to include a statement referencing damage requiring test and inspection of cargo tanks as set forth in § 180.407(b).

NTTC contends a product could be loaded into a cargo tank that was not designed for or otherwise suitable for the product, resulting in a compromise of the lading retention system. In a second example, NTTC describes a carrier driver relinquishing control of the cargo tank to a shipper before the unit is staged for loading. Damage that may result from these activities might not be discovered for a considerable amount of time. NTTC does not believe RSPA addressed these concerns in the final rule and reiterates them in its appeal to this rulemaking. NTTC believes RSPA has unfairly and unwisely placed tank truck carriers in a ''compliance trap'' and wonders if tank truck operators will have to perform '' * * * detailed internal and external inspections of all lading retention systems after each 'near-miss'?'' NTTC states RSPA justified this requirement by relying on a decade-old report by the NTSB (PB92–917220) and questions the relevancy of that report and recommendations. NTTC states the NTSB report contains only data of so-called ''rollover'' accidents involving cargo tank motor vehicles; all of the incidents in the report involved releases of hazardous materials in the environment and pertained to measurable specification shortages on vehicles that have previously been addressed by RSPA and the Federal Motor Carrier Safety Administration (FMCSA). NTTC states that if RSPA truly believes ''accurate ('near miss' or 'close call') data will prevent safety gaps,'' as well as determine ''* * * how to allocate limited funds of the regulated community to provide the greatest safety benefits, RSPA would be remiss in not extending such reporting to all specification packagings.'' As an alternative, NTTC suggests the following modification: ''A specification cargo tank with a capacity of 1,000 gallons or greater containing any hazardous material is damaged to the extent that it becomes subject to 49 CFR § 180.407(b).''

ATA-Trucking states that in addition to ''* * * artificially limiting the number of reports received from incidents discovered during unloading, RSPA has expanded the number of reports it will collect by expanding the incident reporting requirement to bulk cargo tanks that suffer certain damage that does not result in a release of hazardous materials.'' ATA-Trucking believes this ''standard for reporting damage in the absence of a release is vague and will potentially lead to instances of non-compliance.'' ATA-Trucking supports the proposal crafted by NTTC. ATA-Trucking believes NTTC's proposal ''* * * would create objective reporting criteria and reduce instances of non-compliance resulting from the uncertainty of whether to file an incident report'' * * * ATA-Trucking recommends RSPA eliminate the tank truck operator's obligation to file a hazardous materials report when no hazardous material has been released or in the alternative, amend § 171.16(a)(3) to reference § 180.407(b) as suggested by NTTC.

NPGA also ''* * * opposes the last portion of this provision and believes the collection of this incident information will not provide the type of data sought by RSPA that would result in increased safety.'' NPGA believes this provision is ''* * * vague, fails to provide the regulated parties the requisite certainty to enable compliance, and will lead to inconsistent enforcement in the field.'' NPGA reminds RSPA of its comments during the rulemaking stage noting the genesis of HM–229 was the HM–225A negotiated rulemaking between the cargo tank industry and DOT. NPGA argues that more data is not better data. NPGA notes RSPA's HM–229 preamble discussion ''* * * that such reporting can provide information concerning packaging integrity.'' This final rule expands the incident database ''* * * to include ''near miss'' or ''close call'' incidents, which ''* * * have the potential for significant consequences.'' NPGA believes the vagueness of this regulation creates uncertainty as to when a report should be filed. ''* * * Multiple instances of less serious damage could lead to a form of damage considered more serious, thus necessitating a report filing.'' NPGA recommends RSPA delete the phrase '' * * * even if there is no release of hazardous material'' from § 171.16(a)(3), and modify the provision to reference § 180.407(b) as suggested by NTTC. NPGA contends this section ''* * * is much more familiar to the industry and provides a form of criteria for filing reports that the currently adopted provision lacks.''

PTSA states this provision is vague, will lead to uneven compliance and inconsistent enforcement, and places a greater and unwarranted compliance burden on small business petroleum marketers. According to PTSA, ''* * * petroleum marketers are likely to incur undeserved civil penalties and unjustified safety rating scores * * *'' PTSA states that the ability for small business petroleum marketers to obtain certainty of compliance is vital to ensure the safe transportation of hazardous materials and maintain a competitive edge against larger hazardous materials carriers with more compliance resources. PTSA believes the information collected from non-

release incidents is subjective and disagrees with RSPA's belief that information collected can provide valuable data on packaging integrity. PTSA argues the terms ''near miss'' or ''close call'' in the preamble are too ambiguous to provide any degree of certainty. PTSA believes that ''* * * only engineering studies, under controlled conditions and involving expert analysis can provide the objective information regarding packaging integrity that RSPA seeks to collect.'' PTSA recommends RSPA eliminate the requirement for reporting under § 171.16(a)(3) involving incidents where no release occurs. If RSPA chooses not to follow this recommendation, PTSA contends that a less desirable, but more acceptable alternative would be to amend § 171.16(a)(3) to reference § 180.407(b) as suggested by NTTC.

RSPA disagrees with the appellants. We believe the revisions in this final rule encompass and exceed the conditions in § 180.407(b) by requiring a more detailed accounting of incidents involving hazardous materials, providing specific failure codes, expanding the reporting requirements to persons other than carriers, and defining an ''undeclared hazardous material'' and ''unintentional release.'' We rationalize that ''structural damage'' is any damage that causes a person to ask the question implied in § 180.407(b)(2)—was the cargo tank damaged to an extent that its lading retention capability may be affected? If the damage is sufficient to trigger the repair of the cargo tank, an HMIR should be filed. Consequently, if the question is answered affirmatively, testing and inspection are also required. While RSPA recognizes that some judgment may still be involved, we do not foresee this causing a significant number of new reports being generated. In addition, such reporting will provide us with a better idea of the number of cargo tanks involved in accidents with at least some damage to the lading retention or lading protection system. As noted in the December 3 final rule, information gathered on damage to certified cargo tanks of 1,000 gallons or more that do not result in a release will be analyzed over the next several years to determine its usefulness in practice and if further rulemaking is necessary. As also noted in the December 3 final rule, RSPA may address requiring additional information for other bulk packagings in a future rulemaking. For these reasons, the appeals of NTTC, ATA-Trucking, NPGA, and PTSA regarding the reporting of non-release incidents involving cargo tanks are denied.

Reporting Undeclared Shipments of Hazardous Materials—The December 3 final rule revised § 171.16 to require a person who discovers an undeclared hazardous material to submit an HMIR. ATA-Air requests reconsideration of the new requirement ''* * * in light of the current airport security environment, which did not exist during the comment period * * *'' of the final rule. This appellant notes the Transportation Security Administration (TSA) inspects checked baggage, resulting in a dramatic increase in the volume of such discoveries, and ''* * * the consumer-goods nature of most items found merits consideration.'' ATA-Air states that the revised four-page HMIR is an unnecessary burden and duplicates carriers' existing discrepancy reporting obligations for the same items under 49 CFR § 175.31.'' ATA-Air also stated that RSPA is required by the Paperwork Reduction Act (PRA) ''* * * to avoid such complication and duplication, particularly in view of carriers' dire financial circumstances and sharply reduced staffing * * *'' in the wake of September 11, 2001. The appellant disputes that the average number of incident reports from 1997–2000 is representative of current experience. The appellant stated that RSPA's analysis cited under the PRA section in the final rule preamble ''* * * should be updated to take into account the greatly increased volume of discoveries stemming from TSA screening.'' ATA-Air suggests RSPA defer implementation of this aspect of the rule until these issues are resolved. ATA-Air recommends RSPA ''* * * convene an advisory committee to bring together all stakeholders, including RSPA, Federal Aviation Administration (FAA), ATA-Air, and the carriers, to develop a workable solution to these issues.'' ATA-Air urges RSPA to ''* * * re-open the comment period for this aspect of the final rule, and revise the rule in accordance with those supplemental comments.''

RSPA agrees with the appellant that the potential for the discoveries of undeclared shipments has greatly increased due to heightened awareness of airport security following the tragic September 11, 2001 attacks. However, in § 171.16(d)(3) of the December 3 final rule, we provided an exception from reporting hazardous material discovered in an air passenger's checked or carry-on baggage during the airport screening process. In addition, we acknowledge the potential for burdensome and duplicative discrepancy reporting obligations and refer the filer to § 175.31 of the HMR for discrepancy reporting by carriers. For these reasons, ATA-Air's appeal concerning the reporting of undeclared shipments of hazardous materials is denied.

Requirements To Update the Incident Report—The December 3 final rule amended the HMR to require that an HMIR must be updated within one year of the date of occurrence of the incident whenever one or more of the following occur: (1) A death results from injury caused by a hazardous material; (2) there was a misidentification of the hazardous material or package information on a prior incident report; (3) damage, loss or related cost that was not known when the initial incident report was filed becomes known; or (4) damage, loss, or related cost changes by $25,000 or more, or 10% of the prior total estimate, whichever is greater. ATA-Trucking requests that with the exception of an incident that results in a death subsequent to the filing of the report, RSPA reconsider the obligation to update the incident report. The appellant states that although the preamble ''* * * references comments filed by industry indicating a substantial burden associated with this aspect of the final rule, RSPA has done little more than quote from these comments.'' ATA-Trucking also stated ''RSPA performed no analysis of the burden associated with this requirement or the benefit of the update requirement (*i.e.*, the number of updates that would result in a material impact upon RSPA's analyses). Instead, RSPA justified the update requirement with * * *'' two sentences. ATA-Trucking asserts that ''RSPA has a legal obligation to analyze the issue and discuss its conclusion in the final rule,'' and that RSPA ''* * * failed to respond meaningfully to these comments.'' ATA-Trucking recommends RSPA reconsider this requirement of the final rule by narrowing the scope of updating requirements to instances where a death occurs subsequent to the filing of an HMIR.

We disagree. RSPA believes the criteria outlined in the December 3 final rule to update an incident report are essential in monitoring the results of hazardous materials incidents. By establishing a requirement to report subsequent developments of hazardous materials incidents, RSPA is better equipped to increase the accuracy of the incident reporting database, highlight packaging shortcomings, and identify deficiencies in the handling and transportation of hazardous materials. In addition, we believe the factors necessary to warrant an additional update are severe enough to demand their addition to the incident report

database. For example, a carrier involved in an incident involving black powder reported damages of $120,000, however, subsequent evaluation by the Federal Highway Administration (FHWA) estimated costs of $25 million in terms of impacts due to traffic delays. We believe that better determinations of overall costs by carriers when filing the initial HMIR will minimize the need for subsequent updated reports. We disagree that an analysis of the burden associated with this requirement or the benefit of the update requirement was not performed. As previously stated in the December 3 final rule, we estimate approximately 800 incidents reported each year would require an update at a cost on average of $6.00 per company, or $4,800.00. An analysis of the associated costs to update the approximately 800 incident reports can be found in the regulatory evaluation as referenced under ''Executive Order 12866 and DOT Regulatory Policies and Procedure'' of the ''Regulatory Analyses and Notices'' section of the December 3 final rule, as well as the ''Potential Cost Impacts'' heading found under the ''Regulatory Flexibility Act'' of the December 3 final rule. For these reasons, ATA-Trucking's appeal is denied.

Revised Hazardous Materials Incident Form DOT F 5800.1—The December 3 final rule revised the HMIR and instructions. AAR requests that RSPA reconsider certain required information on the HMIR that AAR considers unnecessary and difficult to obtain. The appellant asserts the shipper/offeror's hazardous materials registration number required by Item 11 of the form is not readily available to carriers. The appellant believes that ''* * * railroads will have difficulty acquiring the shipper's registration number within the thirty (30) day filing limit specified in § 171.16(a),'' therefore, registration numbers should be required on shipping papers if their inclusion is viewed as necessary by RSPA. In addition, the appellant is concerned that report numbers for reports filed by fire, police, and emergency responders required by Item 31 of the form are not readily available, and it does not perceive a need by RSPA for this information. The appellant contends this lack of easily accessible information presents another opportunity to exceed the thirty (30) day filing limit.

We disagree that the inclusion of the registration number of a shipper/offeror as required in Item 11, and an emergency responder's report number as required in Item 31 are unnecessary. This information is vital to constructing a thorough and comprehensive database of incident reports and subsequent responses by emergency personnel. This cross-reference information provides RSPA with an enhanced capability to identify the effectiveness of existing regulations and industry operational procedures, focus on potential problems areas such as training and the handling and transportation of hazardous materials, improve analysis of hazardous materials incidents, and extend outreach to shippers of incidents involving materials they have offered for transportation. In addition, RSPA believes registration numbers can be acquired from the shipper/offeror during the standard notification between shippers and carriers that would normally follow in the aftermath of a hazardous materials incident. Likewise, a fire, police, or emergency responder report number can be obtained by the person in physical possession of the shipment from the responder at the time of an incident. For these reasons, AAR's petitions regarding Items 11 and 31 are denied.

AAR notes that, as drafted, the instructions following Item 23 instruct the filer to skip Part III ''Packing Information'' and proceed to Part IV. The appellant does not believe this was RSPA's intention. We agree, and address this issue under the ''Appeals Granted'' section of this document. AAR further states that if Part III is to be completed, it takes issue with two aspects of Item 28, found in Part III of the form. The first point regarding reporting the manufacturer and model number for any valve that failed on a tank car can be found under the ''Appeals Granted'' section of this document. The second point is discussed here. Item 28 requires a filer to indicate material of construction, design pressure, shell thickness, and head thickness as part of the packing construction and test information. AAR contends the tank car specification is previously required to be supplied for Item 26a; thus negating the need to provide the construction information requirement of Item 28.

We do not agree with AAR's appeal regarding the request for material of construction, design pressure, shell thickness, and head thickness required by Item 28 of the incident report. While Item 26a requires the identification markings of packagings, only the specification requirements can be obtained, not the actual pressure or thickness of an individual tank car. RSPA has determined that this information is necessary to gauge the effectiveness of packagings in the event of an incident, and can utilize this feedback to determine if future rulemakings pertaining to packaging specifications and minimal requirements are warranted. Therefore, AAR's petition to omit the requirement to report material of construction, design pressure, shell thickness, and head thickness in Item 28 is denied.

C. Clarification

A concerned industry member suggested that the definition of an ''undeclared hazardous material'' as revised in the December 3 final rule could be interpreted to exclude a shipment described as ''freight all kinds.'' This is not our intention. A key objective of this final rule is to focus on defining and identifying undeclared hazardous material shipments. Undeclared shipments are a high priority and concern within the Department, especially in light of the increased safety environment that has become prevalent following the September 11, 2001 attacks. Our intent in this rule is to discover undeclared hazardous material shipments that have been buried or hidden in order to prevent damage to property, loss of life, or lack of communication to emergency responders. In that regard, we are amending the definition of ''undeclared shipments'' in § 171.8 to assist in further clarifying the regulations as follows: *Undeclared hazardous material* means a hazardous material that is: (1) Subject to any of the hazard communication requirements in subparts C (Shipping Papers), D (Marking), E (Labeling), and F (Placarding) of Part 172 of this subchapter, or an alternative marking requirement in Part 173 of this subchapter (such as §§ 173.4(a)(10) and 173.6(c)); and (2) offered for transportation in commerce without any visible indication to the person accepting the hazardous material for transportation that a hazardous material is present, on either an accompanying shipping document, or the outside of a transport vehicle, freight container, or package.

III. Regulatory Analyses and Notices

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is not a significant action under section 3(f) of Executive Order 12866 and was not reviewed by the Office of Management and Budget. This final rule is not a significant action under the Regulatory Policies and Procedures of the Department of Transportation. The revisions adopted in this final rule do not alter the cost-benefit analysis and conclusions contained in the Regulatory Evaluation prepared for the December 3, 2003 final rule. The Regulatory Evaluation is

available for review in the public docket for this rulemaking.

B. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (''Federalism''). This final rule preempts state, local, and Indian tribe requirements, but does not propose any regulation that has substantial direct effects on the states, the relationship between the national government and the states, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazardous materials transportation law, 49 U.S.C. 5101–5127, contains an express preemption provision (49 U.S.C. 5125(b)) that preempts state, local, and Indian tribe requirements on certain covered subjects. Covered subjects are:

(1) The designation, description, and classification of hazardous materials;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;

(3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; or

(5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This final rule addresses covered subject item number (4) above and preempts state, local, and Indian tribe requirements not meeting the ''substantively the same'' standard. This final rule is necessary to increase the usefulness of data collected for risk analysis and management by government and industry and, where possible, provide relief from regulatory requirements.

Federal hazardous materials transportation law provides at § 5125(b)(2) that, if we issue a regulation concerning any of the covered subjects, DOT must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance.

C. Executive Order 13175

This final rule has been analyzed in accordance with the principles and criteria contained in Executive order 13175 (''Consultation and Coordination with Indian Tribal Governments''). Because this final rule does not have tribal implications, does not impose substantial direct compliance costs on Indian tribal governments, and does not preempt tribal law, the funding and consultation requirements of Executive Order 13175 do not apply and a tribal summary impact statement is not required.

D. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies

The Regulatory Flexibility Act (5 U.S.C. 601–612) requires each agency to analyze proposed regulations and assess their impact on small businesses and other small entities to determine whether the proposed rule is expected to have a significant impact on a substantial number of small entities. The revisions adopted in this final rule do not alter the cost-benefit analysis and conclusions contained in the Regulatory Evaluation prepared for the December 3, 2003 final rule. Based on the assessment in the regulatory evaluation, I certify that, while this final rule applies to a substantial number of small entities, the economic impact on those small entities is not significant.

This final rule has been developed in accordance with Executive Order 13272 (''Proper Consideration of Small Entities in Agency Rulemaking'') and DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts of final rules on small entities are properly considered.

E. Paperwork Reduction Act

This revisions adopted in this final rule do not alter the cost-benefit analysis and conclusions contained in the regulatory evaluation prepared for the December 3, 2003 final rule.

F. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

G. Unfunded Mandates Reform Act

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of more than $100 million or more to state, local, or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of the rule.

H. Environmental Assessment

This final rule does not affect packaging or hazard communication requirements for shipments of hazardous materials transported in commerce. We find that there are no significant environmental impacts associated with this final rule.

List of Subjects in 49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Reporting and record keeping requirements.

Issued in Washington, DC, on May 14, 2004, under the authority delegated in 49 CFR Part 1.

Samuel G. Bonasso,

Deputy Administrator, Research and Special Programs Administration.

DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

49 CFR Parts 171, 172, 173, 175, 176, 178 and 180

[Docket No. RSPA–04–17036 (HM–215G)]

RIN 2137–AD92

Harmonization With the United Nations Recommendations, International Maritime Dangerous Goods Code, and International Civil Aviation Organization's Technical Instructions

AGENCY: Research and Special Programs Administration (RSPA), DOT.

ACTION: Final rule.

SUMMARY: RSPA is amending the Hazardous Materials Regulations (HMR) to maintain alignment with international standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations and vessel stowage requirements. Because of recent changes to the International Maritime Dangerous Goods Code (IMDG Code), the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions), and the United Nations Recommendations on the Transport of Dangerous Goods (UN Recommendations), these revisions are necessary to facilitate the transport of hazardous materials in international commerce.

DATES: The effective date of these amendments is January 1, 2005

Delayed Compliance Date: Unless otherwise specified, compliance with the amendments adopted in this final rule is required beginning January 1, 2006.

Incorporation by Reference Date: The incorporation by reference of the publications adopted in § 171.7 of this final rule have been approved by the Director of the Federal Register as of January 1, 2005.

FOR FURTHER INFORMATION CONTACT: Charles Betts, Office of Hazardous Materials Standards, telephone (202) 366–8553, or Shane Kelley, International Standards, telephone (202) 366–0656, Research and Special Programs Administration, U.S. Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590–0001.

SUPPLEMENTARY INFORMATION:

Contents

I. Background

On December 21, 1990, RSPA (we) published a final rule (Docket HM–181; 55 FR 52402) based on the UN Recommendations, which comprehensively revised the Hazardous Materials Regulations (HMR), 49 CFR Parts 171 to 180, for harmonization with international standards. Since publication of the 1990 final rule we have issued five additional international harmonization final rules (Dockets HM–215A, 59 FR 67390; HM–215B, 62 FR 24690; HM–215C, 64 FR 10742; HM–215D, 66 FR 33316; and HM–215E, 68 FR 44992). The rules provided additional harmonization with international transportation requirements by more fully aligning the HMR with the corresponding biennial updates of the UN Recommendations, the IMDG Code and the ICAO Technical Instructions.

The UN Recommendations are not regulations, but rather are recommendations issued by the UN Committee of Experts on the Transport of Dangerous Goods (TDG) and on the Globally Harmonized System of Classification and Labeling (GHS). These recommendations are amended and updated biennially by the UN Committee of Experts. They serve as the basis for National, regional, and international modal regulations; specifically, the IMDG Code issued by the International Maritime Organization (IMO), and the ICAO Technical Instructions issued by the ICAO. In 49 CFR 171.12, the HMR authorize domestic transportation of hazardous materials shipments prepared in accordance with the IMDG Code if all or part of the transportation is by vessel, subject to certain conditions and limitations. In § 171.11, subject to certain conditions and limitations, the HMR authorize the offering, acceptance and transport of hazardous materials by aircraft, and by motor vehicle either before or after being transported by aircraft, provided the shipment is in accordance with the ICAO Technical Instructions.

The continually increasing amount of hazardous materials transported in international commerce warrants the harmonization of domestic and international requirements to the greatest extent possible. Harmonization serves to facilitate international transportation and at the same time ensures the safety of people, property and the environment. While the intent of the harmonization rulemakings is to align the HMR with international standards, we review and consider each amendment on its own merit. Each amendment is considered on the basis of the overall impact on transportation safety and the economic implications associated with its adoption into the HMR. Our goal is to harmonize without diminishing the level of safety currently provided by the HMR and without imposing undue burdens on the regulated public. In our efforts to continue to align the HMR with international requirements, this final rule incorporates changes into the HMR based on the Thirteenth Revised Edition of the UN Recommendations, Amendment 32 to the IMDG Code, and the 2005–2006 ICAO Technical Instructions, which become effective January 1, 2005. Petitions for rulemaking concerning harmonization with international standards and additional measures concerning facilitation of international transportation are also addressed in this final rule and serve as the basis of certain amendments. Other amendments are based on feedback from the regulated industry, other DOT modal administrations and our initiative. Also included are various editorial clarifications. Unless otherwise stated, the revisions are for harmonization with international standards.

II. Overview of Changes in This Final Rule

Amendments to the HMR in this final rule include, but are not limited to the following:

—Amendments to the Hazardous Materials Table (HMT) which add, revise or remove certain proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, bulk packaging requirements, passenger and cargo aircraft maximum quantity limitations and vessel stowage provisions.

—Amendments to the List of Marine Pollutants.
—Revisions and additions of special provisions.
—Removal of the air eligibility marking requirement.
—Addition of a ''KEEP AWAY FROM HEAT'' marking requirement for packages offered for transportation by air.
—Amendment to require that aerosols that are carried aboard an aircraft in accordance with § 175.10(a)(4) have their release devices protected by a cap or other suitable means.
—A grandfather provision to allow the shipment of materials classified as corrosive to steel or aluminum under ASTM G 31–72.
— A provision to require that the word ''overpack'' be marked on overpacks to indicate that inside packages comply with prescribed specifications.
—An amendment to the criteria for classification of materials that are corrosive to metals.
—Revision of the limited quantity provisions for Class 6.1, PG II materials and for materials with a subsidiary hazard of 6.1, PG II.
—Amendments to the packaging requirements for materials classified as Division 6.1, Packing Group I, Hazard Zone A or Hazard Zone B.
—Revision of the organic peroxide packaging requirements in order to have one consolidated packaging section for organic peroxides. The revised section will include three separate tables for organic peroxides authorized for transport in non-bulk packagings, IBCs, and bulk packagings other than IBCs, respectively. Additionally, the packaging tables will be updated through the amendments to the organic peroxide requirements that will add, revise, or delete certain entries in the organic peroxide tables.

III. Overview of Amendments Not Being Considered for Adoption in This Final Rule

This final rule makes changes to the HMR based on amendments to the Thirteenth Revised Edition of the UN Recommendations, Amendment 32 to the IMDG Code, and the 2005–2006 ICAO Technical Instructions, which become effective January 1, 2005. However, we are not adopting all of the amendments to those documents into the HMR. In many cases, amendments to the international regulation have not been adopted because of the framework or structure of the HMR. In several cases, we are handling certain amendments in separate rulemakings. For example, all amendments related to infectious substances are being handled under Docket HM–226A. In some instances, such as the amendment to ICAO Technical Instructions to allow certain oxygen generators aboard passenger carrying aircraft, we do not believe the amendment to be in the interest of public safety.

One of the goals of this rulemaking is to continue to maintain consistency between the HMR and the international requirements. We are not striving to make the HMR identical to the international regulations but rather striving to remove or avoid potential barriers to international transportation.

Below is a listing of those significant amendments to the international regulations that we have not included in this final rule with a brief explanation of why the amendment was not included:

• Requirements for infectious substances and genetically modified micro-organisms;

[Amendments to the HMR related to infectious substances will be addressed in a future rulemaking under Docket HM–226A. Several other federal agencies regulate genetically modified micro-organisms; thus we do not plan to adopt provisions for their transport in the HMR.]

• Compressed gas cylinders;

[Amendments to the HMR related to compressed gas cylinders will be addressed in a future rulemaking under Docket HM–220E.]

• Environmentally hazardous substances;

[Delay in action pending further amendments to the international regulations.]

• Hazardous materials security;

[Amendments to the HMR related to the UN Model Regulation's hazardous materials security requirements were promulgated in a rulemaking under the HM–232 Docket series.]

• Requirements for radioactive materials;

[Amendments to the HMR related to Class 7 (radioactive) materials are being addressed in a rulemaking under the HM–230 Docket series.]

• Non-specification bulk packagings;

[We are not adopting the new requirements in the UN Recommendations for non-specification bulk packagings including the additional inspection, testing and marking requirements. We are unsure about the cost impacts of imposing these additional amendments and, therefore, are not adopting any additional amendments at this time.]

• The reference to EN 10028–3, Part 3 for defining steel grain size relevant to the definition of fine grain steel;

[We do not believe there is a need to adopt the European standard EN 10028–3, Part 3 because this standard is equivalent to ASTM E 112–96 (IBR, see § 171.7 of this subchapter). In addition, the ASTM standard is currently referenced in the HMR and is more commonly used and recognized in the U.S.]

• Bulk authorization for UN0331, UN0332 and UN3375;

[For several years, we have authorized, under exemption, the transport of certain blasting agents in bulk packagings. We are currently reviewing those exemptions to determine if they should be included in the HMR. The amendments in the UN Recommendations related to the bulk authorizations for UN0331, UN0332 and UN3375 will be included in that review.]

• The removal of wooden barrel requirements;

[The removal of the wooden barrel requirements (2C1 and 2C2) may be considered in a future rulemaking.]

• The 24-hour gasket relaxation requirement;

[A requirement that removable head packagings for liquids not be drop tested until at least 24 hours after filling and closing to allow for any possible gasket relaxation was adopted in the thirteenth revised edition of the UN Model Regulations. We have conducted testing in coordination with drum manufacturers and have determined that this requirement is not substantiated by the results of the tests conducted. Therefore, we are not adopting into the HMR amendments relative to the 24-hour gasket relaxation requirement. We also opposed this requirement when it was considered by the UN TDG Sub-Committee.]

• Authorization to transport protective breathing equipment (PBE's) with an oxygen generator as cargo onboard a passenger-carrying aircraft.

[We do not believe that oxygen generators should be transported aboard passenger carrying aircraft. Therefore, we are not adopting the ICAO amendment that would allow oxygen generators in protective breathing equipment to be transported in passenger carrying aircraft.]

IV. Section-By-Section Review

Part 171

Section 171.7

Paragraph (a)(3) (incorporation by reference materials) is updated to include the most recent editions of the

ICAO Technical Instructions, the IMDG Code and the UN Recommendations. The updated editions of these standards become effective January 1, 2005. Additionally, the International Maritime Organization (IMO) recommends authorizing a one-year transition period, with a delayed compliance date of January 1, 2006, for the use of the updated edition (Amendment 32) of the IMDG Code.

The updated additions are as follows:

—The ICAO Technical Instructions, 2005–2006 Edition.
—The IMDG Code, Amendment 32.
—The UN Recommendations, Thirteenth Edition.
—The UN Manual of Tests and Criteria, 4th Revised Edition.

Paragraph (b) (list of informational materials not requiring incorporation by reference) is revised by adding an additional reference for a new method for determining the size of an emergency-relief device for portable tanks transporting organic peroxides. This revision is based on a petition for rulemaking numbered P–1428. The petition was submitted by the Organic Peroxides Producers Safety Division of the Society of the Plastics Industry, Inc.

One commenter recommended that we revise the ''Note to Paragraph (h)(3)(vi)'' in § 173.225 to maintain format consistency with the incorporation by reference entry for ''Example of a Test Method for Venting Sizing: OPPSD/SPI Methodology'' found in § 171.7(a). We disagree. The reference to a second example of a test method for venting sizing is not found in § 171.7(a) as a material incorporated by reference. Rather, it is found in § 171.7(b) as informational material not requiring incorporation by reference. Therefore, for clarification we are revising § 171.7(b) to include the reference to the *''American Institute of Chemical Engineers Process Safety Progress Journal.''* In addition, we are revising the ''Note to Paragraph (h)(3)(vi)'' in § 173.225 to include a reference to § 171.7(b), *list of informational materials not requiring incorporation by reference*.

Section 171.8

The definition for ''salvage packaging'' is revised to include the term ''non-conforming.'' The term ''non-conforming'' was added to the definition by the UN Committee of Experts in December 2000 to accommodate the use of salvage packaging for. Occasionally an undamaged package is found to be tested to a performance level which is less than that required for the specific substance it contains (*e.g.*, a drum tested to PG II standards containing a PG I substance). In other instances, the package is found to be a non-performance tested packaging containing a regulated substance. In these situations, it may not be safe or practical to transfer the material to the correct packaging to continue on to the consignee in order to ensure compliance with the HMR. Therefore, the use of salvage packaging to contain ''non-conforming'' packages will minimize the risk to those handling the package during its transport back to the shipper or to an appropriate disposal location.

Section 171.11

Paragraph (d)(15) is revised to clarify that the limitations therein also apply to oxygen generators contained in personal breathing equipment. In addition, paragraph (d)(17) is revised to indicate that an organic peroxide that is not identified by a technical name in any of the organic peroxide tables found in § 173.225 must be approved by the Associate Administrator in accordance with the requirements of § 173.128(d).

Section 171.12

In § 171.12, paragraph (b)(20) is revised to indicate that an organic peroxide that is not identified by a technical name in any of the organic peroxide tables found in § 173.225 must be approved by the Associate Administrator in accordance with the requirements of § 173.128(d).

Section 171.12a

Paragraph (a) is revised to clarify the requirements for the return to Canada of bulk packagings that correspond to DOT or UN Specifications. Paragraph (b)(9)(ii) is revised to indicate that the shipping certification must be completed for shipments from Canada that enter the U.S. Paragraph (b)(18) is revised to indicate that an organic peroxide that is not identified by a technical name in any of the organic peroxide tables found in § 173.22 must be approved by the Associate Administrator in accordance with the requirements of § 173.128(d).

Section 171.14

Paragraphs (d) and (d)(1) are revised to authorize a delayed implementation date for the amendments in this final rule. The effective date of this final rule is January 1, 2005. We are also, authorizing a delayed compliance date of January 1, 2006, which is comparable to the transitional provisions provided in the final rule published under Docket HM–215E. The delayed mandatory compliance date offers sufficient time to implement the new requirements.

Paragraph (d)(2) is revised to authorize certain intermixing of old and new requirements.

Part 172

Section 172.101

The regulatory text preceding the Hazardous Materials Table is revised as follows:

Paragraph (c)(11) and the corresponding note to paragraph (c)(11) are amended to revise a section reference. The reference to § 173.225(c) in the first sentence is revised to read § 173.225(b) and the reference to § 173.225(c)(2) in the note to paragraph (c)(11) is revised to read § 173.225(b)(2).

Paragraph (d)(4) is revised by adding a statement indicating that when the abbreviation ''Comb liq.'' is found in the ''Hazard class or division'' column of the Hazardous Materials Table (column 3), the material falls into the ''Combustible liquid'' hazard class.

Paragraph (i)(3) of this section is revised to specify that Column 7 of the Hazardous Materials Table contains additional bulk packaging authorizations and limitations for the use of UN portable tanks.

§ 172.101 The Hazardous Materials Table (HMT). In this final rule we made various amendments to the HMT. Readers should review all changes for a complete understanding of the Table amendments. The HMT has been reprinted in its entirety due to the numerous changes. Under this final rule the changes to the HMT for the purpose of harmonizing with international standards, unless otherwise stated, include, but are not limited to the following:

- We revised several entries by adding the qualifying word ''liquid.'' This action is consistent with the revisions to proper shipping names that were incorporated into the Thirteenth Revised Edition of the UN Recommendations. Affected entries are as follows:

UN1392 Alkaline earth metal amalgam
UN1420 Potassium metal alloys
UN1422 Potassium sodium alloys
UN1701 Xylyl bromide
UN1742 Boron trifluoride acetic acid complex
UN1743 Boron trifluoride propionic acid complex
UN2235 Chlorobenzyl chlorides
UN2236 3-Chloro-4-methylphenyl isocyanate
UN2306 Nitrobenzotrifluorides
UN2445 Lithium alkyls
UN2552 Hexafluoroacetone hydrate
UN2937 alpha-Methylbenzyl alcohol

UN3276 Nitriles, toxic, n.o.s.
UN3278 Organophosphorus compound, toxic, n.o.s.
UN3280 Organoarsenic compound, n.o.s.
UN3282 Organometallic compound, toxic, n.o.s.
UN3281 Metal carbonyls, n.o.s.

• We revised several entries by adding the qualifying word ''solid.'' This action is consistent with the revisions to proper shipping names that were incorporated into the Thirteenth Revised Edition of the UN Recommendations. Affected entries are as follows:

UN1445 Barium chlorate
UN1447 Barium perchlorate
UN1459 Chlorate and magnesium chloride mixture
UN1470 Lead perchlorate
UN1578 Chloronitrobenzenes
UN1579 4-Chloro-o-toluidine hydrochloride
UN1650 beta-Naphthylamine
UN1680 Potassium cyanide
UN1689 Sodium cyanide
UN1690 Sodium fluoride
UN1697 Chloroacetophenone
UN1709 2,4-Toluylenediamine
UN1812 Potassium fluoride
UN1843 Ammonium dinitro-o-cresolate
UN2074 Acrylamide
UN2239 Chlorotoluidines
UN2261 Xylenols
UN2446 Nitrocresols
UN2662 Hydroquinone
UN3283 Selenium compound, n.o.s.

• We revised several entries by removing the qualifying word ''solid.'' This action provides consistency with the Thirteenth Revised Edition of the UN Recommendations. The affected entries are as follows:

UN1489 Potassium perchlorate, solid
UN1598 Dinitro-o-cresol, *solid*
UN1638 Mercury iodide, *solid*
UN1740 Hydrogendifluorides, n.o.s. *solid*
UN2439 Sodium hydrogendifluoride, *solid*

• We deleted several entries. This action removes from the HMR the solution form of entries that are not identified as solutions in the Thirteenth Revised Edition of the UN Recommendations. The deleted entries are as follows:

UN1489 Potassium perchlorate, solution
UN1598 Dinitro-o-cresol, *solution*
UN1638 Mercury iodide, *solution*
UN1740 Hydrogendifluorides, n.o.s. *solutions*
UN2439 Sodium hydrogendifluoride *solution*

• We revised the proper shipping name ''Butadienes, stabilized,'' UN1010 to read ''Butadienes, stabilized *or* Butadienes and hydrocarbon mixture, stabilized, *containing more than 40% butadienes.*''

• We revised the proper shipping name ''Potassium hydrogendifluoride, *solid*,'' UN1811 to read ''Potassium hydrogendifluoride, solid.''

• We revised the proper shipping name ''Refrigerating machines, *containing non-flammable, non-toxic, liquefied gas or ammonia solution (UN2672),*'' UN2857 to read ''Refrigerating machines *containing non-flammable, non-toxic gases or ammonia solutions (UN2672).*''

• We removed four references to IB52 and four references to T23 from column 7 of the HMT. This change is necessary because IB52 and T23 have been relocated to § 173.225. The affected entries are:

UN3109 Organic peroxide type F, liquid
UN3110 Organic peroxide type F, solid
UN3119 Organic peroxide type F, liquid, temperature controlled
UN3120 Organic peroxide type F, solid, temperature controlled

• IP5 is removed from column 7 of the HMT for the following UN entries:

UN1791 Hypochlorite solution
UN2014 Hydrogen peroxide, aqueous solution with not less than 20% but not more than 60% hydrogen peroxide (*stabilized as necessary*).
UN3149 Hydrogen peroxide and peroxyacetic acid mixture with acid(s), water and not more than 5% peroxyacetic acid.

• We deleted several entries. This action is consistent with the deletion of proper shipping names that were incorporated into the Thirteenth Revised Edition of the UN Recommendations that we are proposing to adopt into the HMR. The entries affected are:

UN2003 Metal alkyls, water-reactive, n.o.s. *or* Metal aryls, water-reactive, n.o.s.
UN3049 Metal alkyl halides, water-reactive, n.o.s. *or* Metal aryl halides, water-reactive, n.o.s.
UN3050 Metal alkyl hydrides, water-reactive, n.o.s. *or* Metal aryl hydrides, water-reactive, n.o.s.
UN3207 Organometallic compound *or* Compound solution *or* Compound dispersion, water-reactive, flammable, n.o.s.
UN3203 Pyrophoric organometallic compound, water-reactive, n.o.s., liquid Pyrophoric organometallic compound, water-reactive, n.o.s., solid
UN3372 Organometallic compound, solid, water-reactive, flammable, n.o.s.

• We added the following new entries. Many of these entries are the liquid or solid form of entries that are already listed in the HMT. This action is consistent with the addition of proper shipping names that were incorporated into the Thirteenth Revised Edition of the UN Recommendations. The new entries are as follows:

UN3377 Sodium perborate monohydrate
UN3378 Sodium carbonate peroxyhydrate
UN3379 Desensitized explosives, liquid, n.o.s.
UN3380 Desensitized explosives, solid, n.o.s.
UN3401 Alkali metal amalgam, solid
UN3402 Alkaline earth metal amalgam, solid
UN3403 Potassium metal alloys, solid
UN3404 Potassium sodium alloys, solid
UN3405 Barium chlorate solution
UN3406 Barium perchlorate solution
UN3407 Chlorate and magnesium chloride mixture solution
UN3408 Lead perchlorate solution
UN3409 Chloronitrobenzenes, liquid
UN3410 4-Chloro-o-toluidine hydrochloride solution
UN3411 beta-Naphthylamine solution
UN3413 Potassium cyanide solution
UN3414 Sodium cyanide solution
UN3415 Sodium fluoride solution
UN3416 Chloroacetophenone, liquid
UN3417 Xylyl bromide, solid
UN3418 2,4-Toluylenediamine solution
UN3419 Boron trifluoride acetic acid complex, solid
UN3420 Boron trifluoride propionic, acid complex, solid
UN3421 Potassium hydrogendifluoride solution
UN3422 Potassium fluoride solution
UN3423 Tetramethylammonium hydroxide, solid
UN3424 Ammonium dinitro-o-cresolate solution
UN3425 Bromoacetic acid, solid
UN3426 Acrylamide solution
UN3427 Chlorobenzyl chlorides, solid
UN3428 3-Chloro-4-Methylphenyl isocyanate, solid
UN3429 Chloro-toluidines, liquid
UN3430 Xylenols, liquids
UN3431 Nitrobenzotrifluorides, solid
UN3432 Polychlorinated biphenyls, solid
UN3433 Lithium alkyls, solid
UN3434 Nitrocresols, liquid
UN3435 Hydroquinone solution
UN3436 Hexafluoroacetone hydrate, solid

UN3437 Chlorocresols, solid
UN3438 alpha-Methylbenzyl alcohol, solid
UN3439 Nitriles, toxic, solid, n.o.s.
UN3440 Selenium compound, liquid, n.o.s.
UN3441 Chlorodinitrobenzenes, solid
UN3442 Dichloroanilines, solid
UN3443 Dinitrobenzenes, solid
UN3444 Nicotine hydrochloride, solid
UN3445 Nicotine sulphate, solid
UN3446 Nitrotoluenes, solid
UN3447 Nitroxylenes, solid
UN3448 Tear gas substance, solid, n.o.s.
UN3449 Bromobenzyl cyanides, solid
UN3450 Diphenylchloroarsine, solid
UN3451 Toluidines, solid
UN3452 Xylidines, solid
UN3453 Phosphoric acid, solid
UN3454 Dinitrotoluenes, solid
UN3455 Cresols, solid
UN3456 Nitrosyl-sulphuric acid, solid
UN3457 Chloronitrotoluenes, solid
UN3458 Nitroanisoles, solid
UN3459 Nitrobromobenzenes, solid
UN3460 N-Ethylbenzyltoluidines, solid
UN3461 Aluminium alkyl halides, solid
UN3462 Toxins, extracted from living sources, solid, n.o.s.
UN3464 Organophosphorus compound, toxic, solid, n.o.s.
UN3465 Organoarsenic compound, solid, n.o.s.
UN3466 Metal carbonyls, solid, n.o.s.
UN3467 Organometallic compound, toxic, solid, n.o.s.
UN3468 Hydrogen in a metal hydride storage system

A commenter stated that by adding the shipping names for desensitized explosives under identification numbers UN3379 and UN3380, approvals should be modified to authorize the use of classifications for the applicable hazardous materials. The commenter also noted that due to these additions, the definitions for flammable solids and flammable liquids require revision to account for the new shipping names. We do not anticipate a significant number of explosives being assigned to these shipping names. Therefore, we disagree with the commenter's contention that each holder of an EX number request an updated shipping classification. In addition, we do not agree with the commenter's request to revise the definitions of flammable solid and flammable liquid to include the additional proper shipping names. The definitions of flammable solid and flammable liquid adequately describe materials assigned to those shipping names. Additionally, shipping names are not found under hazard class definitions, but rather, in the HMT.

• We added the following new generic entries for materials that are toxic by inhalation. These new names will replace the existing generic entries in the HMT. This action is consistent with the addition of proper shipping names that were incorporated into the Thirteenth Revised Edition of the UN Recommendations. Affected entries are as follows:

UN3381 Toxic by inhalation liquid, n.o.s. *with an inhalation toxicity lower than or equal to 200 ml/m³ and saturated vapor concentration greater than or equal to 500 LC_{50}.*
UN3382 Toxic by inhalation liquid, n.o.s. *with an inhalation toxicity lower than or equal to 1000 ml/m³ and saturated vapor concentration greater than or equal to 10 LC_{50}.*
UN3383 Toxic by inhalation liquid, flammable, n.o.s. *with an inhalation toxicity lower than or equal to 200 ml/m³ and saturated vapor concentration greater than or equal to 500 LC_{50}.*
UN3384 Toxic by inhalation liquid, flammable, n.o.s. *with an inhalation toxicity lower than or equal to 1000 ml/m³ and saturated vapor concentration greater than or equal to 10 LC_{50}.*
UN3385 Toxic by inhalation liquid, water-reactive, n.o.s. *with an inhalation toxicity lower than or equal to 200 ml/m³ and saturated vapor concentration greater than or equal to 500 LC_{50}.*
UN3386 Toxic by inhalation liquid, water-reactive, n.o.s. *with an inhalation toxicity lower than or equal to 1000 ml/m³ and saturated vapor concentration greater than or equal to 10 LC_{50}.*
UN3387 Toxic by inhalation liquid, oxidizing, n.o.s. *with an inhalation toxicity lower than or equal to 200 ml/m³ and saturated vapor concentration greater than or equal to 500 LC_{50}.*
UN3388 Toxic by inhalation liquid, oxidizing, n.o.s. *with an inhalation toxicity lower than or equal to 1000 ml/m³ and saturated vapor concentration greater than or equal to 10 LC_{50}.*
UN3389 Toxic by inhalation liquid, corrosive, n.o.s. *with an inhalation toxicity lower than or equal to 200 ml/m³ and saturated vapor concentration greater than or equal to 500 LC_{50}.*
UN3390 Toxic by inhalation liquid, corrosive, n.o.s. *with an inhalation toxicity lower than or equal to 1000 ml/m³ and saturated vapor concentration greater than or equal to 10 LC_{50}.*

• We added the following new generic entries for organometallic substances. This action is consistent with the addition of proper shipping names that were incorporated into the Thirteenth Revised Edition of the UN Recommendations. The new entries are as follows:

UN3391 Organometallic substance, solid, pyrophoric
UN3392 Organometallic substance, liquid, pyrophoric
UN3393 Organometallic substance, solid, pyrophoric, water-reactive
UN3394 Organometallic substance, liquid, pyrophoric, water-reactive
UN3395 Organometallic substance, solid, water-reactive
UN3396 Organometallic substance, solid, water-reactive, flammable
UN3397 Organometallic substance, solid, water-reactive, self-heating
UN3398 Organometallic substance, liquid, water-reactive
UN3399 Organometallic substance, liquid, water-reactive, flammable
UN3400 Organometallic substance, solid, self-heating

In addition, we are continuing to allow the use of the following specific Organometallic entries: UN1366, UN1370, UN2005, UN2445, UN3051, UN3052, UN3053, and UN3076. However, we anticipate removing these entries from the HMT by January 1, 2007.

• The U.N. Recommendations have adopted a rationalized approach for the assignment of UN portable tank instructions for solid materials. Based on that rationalized approach, we made several changes to UN portable tank authorizations in the HMR. These changes are summarized as follows. For a more specific identification of the affected shipping descriptions, refer to the *UN report* located in the public Docket.

For Division 4.1, Packing Group I materials, the use of UN portable tanks is not authorized.

For Division 4.3 materials with a subsidiary class of 6.1, in Packing Group I, the use of portable tanks is not authorized.

For materials of Divisions 4.1, 4.2, 4.3, 5.1, 6.1, and Classes 8 and 9, in Packing Group II, Special Provisions T3 is specified.

For Division 4.2, Packing Group I materials, T21 and TP7 is specified.

For Division 4.3, Packing Group I materials, T9 and TP7 is specified.

For Division 5.1, Packing Group I materials, the use of UN portable tanks is not authorized.

For Division 6.1 and Class 8, Packing Group I materials, T6 is specified.

For materials of Divisions 4.1, 4.2, 4.3, 5.1, 6.1, and Classes 8 and 9, in Packing Group III, Special Provisions T1 is specified.

• Several entries in the HMT have been revised by amending column 9B to read ''forbidden'' so that the materials are no longer authorized for transport aboard cargo aircraft. The entries have been revised because they meet the criteria of either Zone C or Zone D inhalation toxicity. All other Zone C and Zone D toxic by inhalation materials listed in the HMR are currently already forbidden from transport aboard passenger and cargo aircraft (these materials are already forbidden from transport aboard passenger aircraft). The entries to be revised include:

Zone C

UN2204 Carbonyl sulfide
UN1023 Coal gas, compressed
UN1064 Methyl mercaptan
UN1048 Hydrogen bromide, anhydrous
UN1079 Sulfur dioxide

Zone D

UN1005 Ammonia, anhydrous
UN3318 Ammonia solution, *relative density less than 0.880 at 15 degrees C in water, with more than 50 percent ammonia*
UN1040 Ethylene oxide *or* Ethylene oxide with nitrogen *up to a total pressure of 1MPa (10 bar) at 50 degrees C*
UN1040 Ethylene oxide *or* Ethylene oxide with nitrogen *up to a total pressure of 1MPa (10 bar) at 50 degrees C*
UN2191 Sulfuryl fluoride

Also, see § 172.102 for additional HMT amendments.

Appendix B to § 172.101

In Appendix B to § 172.101, List of Marine Pollutants, we removed the entries ''Diphenyl oxide and biphenyl phenyl ether mixtures,'' ''Isoamyl mercaptan,'' ''Pentanethiols,'' and ''Tetrachlorophenol.'' We revised the entry ''2, 6-Di-tert-Butylphenol'' and we added the entry ''Chloropicrin.''

Section 172.102

We amended § 172.102, Special Provisions, as follows:

• Several entries in the HMT are revised by adding special provisions A3, A6, A7, A9, A10, N3, and N36 to align this section with the equivalent special provisions in the ICAO Technical Instructions (13, 2, 5, 4, 7, 21, and 3 respectively). We removed the ''A'' special provisions for several entries because we have determined that the materials to which the provisions apply are currently not authorized for transportation on either passenger or cargo aircraft.

The following entries are revised by adding special provision A3:

UN1154 Diethylamine
UN1788 Hydrobromic acid, *not more than 49% strength*
UN1789 Hydrochloric acid
UN2031 Nitric acid, *other than red fuming, with more than 70% nitric acid*
UN2604 Boron trifluoride diethyl etherate

• The following entries are revised by adding A6:

UN1111 Amyl mercaptan
UN1228 Mercaptans, liquid, flammable, toxic, n.o.s.
UN1760 Corrosive liquid, n.o.s.
UN1903 Disinfectants, liquid, corrosive, n.o.s.
UN2031 Nitric acid, *other than red fuming, with not more than 70% nitric acid*
UN2054 Morpholine
UN2347 Butyl mercaptan
UN2363 Ethyl mercaptan
UN2402 Propanethiols
UN2801 Dye, liquid, corrosive, n.o.s.
UN2920 Corrosive liquid, flammable, n.o.s.
UN2922 Corrosive liquid, toxic, n.o.s.
UN3071 Mercaptans, liquid, toxic, flammable, n.o.s.
UN3093 Corrosive liquid, oxidizing, n.o.s.
UN3093 Corrosive liquid, oxidizing, n.o.s.
UN3094 Corrosive liquid, water-reactive, n.o.s.
UN3094 Corrosive liquid, water-reactive, n.o.s.
UN3098 Oxidizing liquid, corrosive, n.o.s.
UN3099 Oxidizing liquid, toxic, n.o.s.
UN3139 Oxidizing liquid, n.o.s.
UN3145 Alkylphenols, liquid, n.o.s. (*including C2-C12 homologues*)
UN3264 Corrosive liquid, acidic, inorganic, n.o.s.
UN3265 Corrosive liquid, acidic, organic, n.o.s.
UN3266 Corrosive liquid, basic, inorganic, n.o.s.
UN3267 Corrosive liquid, basic, organic, n.o.s.
UN3301 Corrosive liquid, self-heating, n.o.s.

• The following entries are revised by adding special provision A7:

UN1167 Divinyl ether, stabilized
UN1277 Propylamine
UN1389 Alkali metal amalgam, liquid
UN1389 Alkali metal amalgam, solid
UN1391 Alkali metal dispersion *or* Alkaline earth metal dispersion
UN1407 Cesium or Caesium
UN1420 Potassium metal alloys
UN1421 Alkali metal alloy, liquid, n.o.s.
UN1422 Potassium sodium alloys
UN1431 Sodium methylate
UN1796 Nitrating acid mixture *with not more than 50% nitric acid*
UN1796 Nitrating acid mixture *with more than 50% nitric acid*
UN1826 Nitrating acid mixture, spent *with not more than 50% nitric acid*
UN1826 Nitrating acid mixture, spent *with more than 50% nitric acid*
UN1828 Sulphur chlorides
UN1938 Bromoacetic acid
UN2257 Potassium
UN2749 Tetramethylsilane
UN3093 Corrosive liquid, oxidizing, n.o.s.
UN3093 Corrosive liquid, oxidizing, n.o.s.
UN3094 Corrosive liquid, water-reactive, n.o.s.
UN3094 Corrosive liquid, water-reactive, n.o.s.
UN3205 Alkaline earth metal alcoholates, n.o.s.
UN3205 Alkaline earth metal alcoholates, n.o.s.
UN3206 Alkali metal alcoholates, self-heating, corrosive, n.o.s.
UN3206 Alkali metal alcoholates, self-heating, corrosive, n.o.s.
UN3208 Metallic substance, water-reactive, n.o.s.
UN3208 Metallic substance, water-reactive, n.o.s.
UN3208 Metallic substance, water-reactive, n.o.s.
UN3209 Metallic substance, water-reactive, self-heating, n.o.s.
UN3209 Metallic substance, water-reactive, self-heating, n.o.s.
UN3209 Metallic substance, water-reactive, self-heating, n.o.s.

• The following entries are revised by adding special provision A9:

UN1449 Barium peroxide
UN1452 Calcium chlorate
UN3212 Hypochlorites, inorganic, n.o.s.

• The following entries are revised by adding special provision A10:

UN1828 Sulphur chlorides
UN2401 Piperidine

• The following entry is revised by adding special provision N3:

UN2817 Ammonium hydrogendifluoride solution

• The following entries are revised by adding special provision N36:

UN1184 Ethylene dichloride
UN1732 Antimony pentafluoride
UN1777 Fluorosulphonic acid
UN2699 Trifluoroacetic acid

• The following entries are revised by removing certain ''A'' special provisions since the materials themselves are forbidden for transportation aboard passenger and cargo aircraft:

UN1541 Acetone cyanohydrin, stabilized (remove A3)
UN1722 Allyl chloroformate (remove A3)
UN2692 Boron tribromide (remove A3, A7)
UN1744 Bromine *or* Bromine solutions (remove A3, A6)
UN2484 tert-Butyl isocyanate (remove A7)
UN2485 n-Butyl isocyanate (remove A7)
UN1752 Chloroacetyl chloride (remove A3, A6, A7)
UN1754 Chlorosulfonic acid (*with or without sulfur trioxide*) (remove A3, A6, A10)
UN2382 Dimethylhydrazine, symmetrical (remove A7)
UN1182 Ethyl chloroformate (remove A3, A6, A7)
UN2481 Ethyl isocyanate (remove A7)
UN2014 Hydrogen peroxide, aqueous solutions *with more than 40 percent but not more than 60 percent hydrogen peroxide* (stabilized as necessary) (remove A3, A6)
UN2015 Hydrogen peroxide, stabilized *or* Hydrogen peroxide aqueous solutions, stabilized *with more than 60 percent hydrogen peroxide* (remove A3, A6)
NA9206 Methyl phosphonic dichloride (remove A3)
UN2534 Methylchlorosilane (remove A2, A3, A7)
UN2304 Naphthalene, molten (remove A1)
UN1670 Perchloromethyl mercaptan (remove A3, A7)
UN1810 Phosphorus oxychloride (remove A7)
UN2740 n-Propyl chloroformate (remove A3, A6, A7)
UN1829 Sulfur trioxide, stabilized (remove A7)
UN1831 Sulfuric acid, fuming *with 30 percent or more free sulfur trioxide* (remove A3, A6, A7)
UN1834 Sulfuryl chloride (remove A3)
UN1836 Thionyl chloride (remove A7)
UN2474 Thiophosgene (remove A7)
UN1838 Titanium tetrachloride (remove A3, A6)
UN2441 Titanium trichloride, pyrophoric *or* Titanium trichloride mixtures, pyrophoric (remove A7, A8, A19, A20)
UN2442 Trichloroacetyl chloride (remove A3, A7)
UN1295 Trichlorosilane (remove A7)
UN2438 Trimethylacetyl chloride (remove A3, A6, A7)

• Paragraph (b)(3) of this section is amended to specify that a ''B'' code refers to a special provision that applies only to certain bulk packaging requirements and that, unless otherwise stated, does not apply to UN, IM Specification portable tanks or IBCs.

• Paragraph (b)(4) of this section is amended to specify that a code containing the letters ''IB'' or ''IP'' refers to a special provision that applies only to transportation in IBCs.

• Paragraph (b)(7) of this section is amended to specify that a code containing the letter ''T'' refers to a special provision which applies only to transportation in UN or IM Specification portable tanks.

• Paragraph (b)(8) is redesignated (b)(9) and a new paragraph (b)(8) is added to specify that a code containing the letters ''TP'' refers to a special provision that is in addition to those provided by the portable tank instructions or the requirements in part 178.

• Special Provision 47 is revised to include an additional exception currently in the UN Model Regulations specifying that a leakproofness test is not required when the liquids are fully absorbed in solid material contained in sealed bags.

• Special Provision 135 is revised to expand the applicability of the proper shipping names ''Vehicle, flammable liquid powered'' and ''Vehicle, flammable gas powered'' to include hybrid electric vehicles.

• Special Provision 137 is revised to expand the exception for ''Cotton, dry''.

• Special Provision 143 is removed and relocated to § 173.219 so that the limitations on the types of hazardous materials authorized apply to both self-inflating and non-self-inflating life-saving appliances.

• Special Provision 153 is relocated to new paragraph (k) in § 173.115 and revised to include amended classification criteria for aerosols containing flammable constituents consistent with criteria in the UN Model Regulations. The revised criteria include methods for the classification of aerosols based on the percentage of flammable components. One commenter agreed with the removal of Special Provision 153 and the relocation of classification criteria for aerosols to § 173.115(k).

• New Special Provision 163 is added to specify that Ammonium Nitrate Emulsions are required to satisfactorily pass Test Series 8 of the UN Manual of Tests and Criteria, Part I, Section 18.

• New Special Provision 164 is added to specify that an approval is required for ''Desensitized explosives, liquid, n.o.s.'' and ''Desensitized explosives, solid, n.o.s.''

• New Special Provision 165 is added to the calcium hypochlorite PG II and the PG III entries for UN1748 and UN2880 to specify the danger of exothermic decomposition and require shading from direct sunlight and sources of heat during transportation. One commenter agreed with our efforts to harmonize the HMR with UN Recommendations, but was concerned with the intent of Special Provision 165. This commenter agreed that calcium hypochlorite should be shaded from direct sunlight but questioned the ambient heat and ventilation provisions. The commenter stated that calcium hypochlorite is currently transported in closed cargo transport units, thus, satisfying the requirement to protect this hazardous material from direct sunlight. However, since the cargo transport units are not ventilated by fan or induced ventilation, and the cargo transport units would be subjected to ambient heat, a violation of Special Provision 165 appears imminent. We disagree. We feel Special Provision 165 provides latitude for compliance with the ventilation and ambient heat requirements. Proper ventilation and protection from ambient heat can be achieved during the loading process of the cargo transport units and throughout the transportation cycle by allowing adequate space for air movement around the calcium hypochlorite packages. We do agree; however, that cargo transport units themselves should not be required to be shaded from direct sunlight. Therefore, we have revised the regulatory text accordingly.

• New Special Provision 166 is added to the PG II entry for calcium hypochlorite, UN2880 and UN1748 to indicate that calcium hypochlorite in the non-friable tablet form may be transported as a PG III material.

• New Special Provision 167 is added to the new entry for ''Hydrogen in a metal hydride storage system'' to specify that such storage systems shall always be considered as containing hydrogen.

• New Special Provision 170 is added to Organometallic substances entries (UN3391, UN3392, UN3393, and UN3394). The special provision requires air to be eliminated from the vapor space by nitrogen or other means.

• New Special Provision 171 is added to the UN2880 PG III entry. Since UN2880 also covers mixtures of hydrated calcium hypochlorite in any concentration, some formulations in other than tablet form (*e.g.*, in granular form) may meet the criteria for classification in Division 5.1, Packing Group III when subjected to the relevant test in the UN Manual of Tests and Criteria. The PG III entry for calcium hypochlorite is only authorized when the material is offered in the non-friable tablet form or for granular or powdered

mixtures. This entry is not authorized for the pure form of ''Calcium hypochlorite, hydrated''. We also recognize that some formulations, when tested, do not meet the criteria for classification in Division 5.1. In light of this, we added a new Special Provision 171 to the UN2880, PG III entry in the HMT to allow for the possibility to classify powdered or granular mixtures of hydrated calcium hypochlorite in Packing Group III when data indicate that the mixture meets the criteria for assignment to PG III. One commenter supports the revisions that align calcium hypochlorite entries in the HMT with UN Recommendations. However, this commenter requested the addition of Special Provision 171 to the entry, ''Calcium hypochlorite, dry or Calcium hypochlorite mixtures dry, (UN1748)'' for consistent alignment with the UN Recommendations. We agree. After further review of the UN Recommendations, we have determined that the UN Special Provision 316 is equivalent to the proposed Special Provision 171 in Docket HM–215G, and is applicable to both the ''dry'' and ''hydrated'' calcium hypochlorite entries. Therefore, we are assigning Special Provision 171 to the ''Calcium hypochlorite, dry *or* Calcium hypochlorite mixtures dry, (UN1748)'' entry.

- Special Provision A11 is currently assigned to UN 2983, Ethylene oxide and Propylene oxide mixtures and UN 1411, Lithium aluminum hydride, ethereal. In the ICAO Technical Instructions these substances are only authorized for transport in metal cylinders. A11 states ''For combination packagings, when metal inner packagings are permitted, only specification cylinders constructed of metals which are compatible with the hazardous material may be used. In the NPRM, we proposed to harmonize with the applicable ICAO Technical Instruction particular packing requirement (PPR 8), however discussions with the ICAO Dangerous Goods Panel and further analysis of ICAO PPR 8 has revealed that the requirement may need to be amended. Our analysis showed that other packagings, including glass inner packagings, are authorized, and as such restricting packagings to only specification cylinders appears unnecessarily restrictive. As such we are not proposing to amend Special Provision A11 in this final rule.
- Consistent with ICAO, we are adding a proper shipping name to the HMT for ''Receptacles, small containing gas, 2.2 with a subsidiary of 5.1.'' A new ''A'' code (A14) is added to prohibit this material from being transported as a limited quantity or consumer commodity in accordance with § 173.306 aboard an aircraft. This new ''A'' code has also been added to the following additional shipping names: ''Oxygen, compressed,'' Carbon dioxide and oxygen mixtures,'' ''Nitrous oxide'', ''Compressed gas oxidizing,'' and ''Liquefied gas, oxidizing.''
- For consistency, the authorization in Special Provision B69 to allow dry sodium or potassium cyanide in siftproof, water-resistant fiberboard IBCs is relocated to new Special Provision IP20.
- Paragraph (c)(4) of this section is amended by relocating ''Table 2.—Organic Peroxide IBC Code (IB52)'' to paragraph (e) of § 173.225 and renaming it the ''Organic Peroxide IBC Table.'' Table 3.—IP Codes is redesignated Table 2.—IP Codes. The wording of paragraph (c)(4) is revised to indicate that Table 3.—IP Codes had been redesignated Table 2.—IP Codes. All references to IB52 in the HMR are removed and replaced with ''Organic Peroxide IBC Table'' or ''§ 173.225(e),'' as applicable.
- Paragraph (c)(7) is amended by relocating the Portable Tank Code T50 Table to § 173.313 and renaming it ''UN Portable Tank Table for Liquefied Compressed Gases.'' The T50 Table and its description is removed from paragraph (c)(7)(iv) and replaced with a statement indicating that the new ''UN Portable Tank Table for Liquefied Compressed Gases'' is found in § 173.313. All references to T50 in the HMR are removed and replaced with ''UN Portable Tank Table for Liquefied Compressed Gases in § 173.313.'' In addition, paragraph (c)(7) is amended by relocating Portable Tank Code T23 to paragraph (g) of § 173.225 and renaming it the ''Organic Peroxide Portable Tank Table.'' Portable Tank Code T23 and its description found in paragraph (c)(7)(iii) are removed and paragraphs (c)(7)(iv)–(c)(7)(vii) are redesignated (c)(7)(iii)–(c)(7)(vi), respectively. All references to T23 in the HMR are removed and replaced with ''Organic Peroxide Portable Tank Table'' or ''§ 173.225(g),'' as applicable.
- New paragraph (c)(8) is added to provide an introduction to the ''TP'' codes (*i.e.*, portable tank special provisions). The existing paragraph (c)(8) is redesignated paragraph (c)(9).
- New Special IBC Packing Provision IP13 is added to specify that transportation by vessel in IBCs is prohibited.
- New Special IBC Packing Provision IP14 is added to specify that air must be eliminated from the vapor space by nitrogen purging or other means.
- New Special IBC Packing Provision IP20 is added to specify that dry sodium cyanide and potassium cyanide are also permitted in siftproof, water-resistant, fiberboard IBCs when transported in closed freight containers or transport vehicles.
- Portable tank Special Provision TP3 is revised to include the maximum degree of filling (in %) for solids transported above their melting points.
- Special Provision TP6 is revised by removing the word ''event'' and replacing it with the word ''incident.''
- Portable tank Special Provision TP9 is removed from column (7) of the HMT for all materials that reference a T code special provision. Special provision TP9 states that a material with TP9 in Column (7) may only be transported in a portable tank if approved by the Associate Administrator. A material that has been given a T code does not require approval and is not subject to Special Provision TP9.
- In the NPRM we proposed adoption of a new portable tank special provision, TP33, by adding the new provision to certain entries in the HMT. However, we neglected to include the text of the provision itself. We are correcting this omission in this final rule.

Section 172.202

We are editorially revising paragraph (a)(2)(iii) by removing the examples that illustrate the optional provision to enter primary and subsidiary hazard class or division names on shipping papers for domestic shipments. In the HM–215E response to appeals final rule (69 FR 34604) that was published on June 22, 2004, we reinstated the provision which was removed in a previous rulemaking (68 FR 44992). During the process of correcting a printing error in one of the examples, we determined that the regulatory text is complete and sufficient without the use of examples.

In the NPRM [69 FR 34741] we proposed to amend paragraph (a)(5)(i) to require the quantity shown on a shipping paper for an explosive article, such as Cartridges, small arms, to be the net mass of the entire article rather than the net mass of the explosive contained in the article. Commenters generally support the proposal, suggesting that it will provide for consistency across modes of transportation and for more accurate calculations. However, several of these commenters note that, for certain explosive articles that contain very small amounts of an explosive, showing the net mass of the article rather than of the explosive contained in the article could misrepresent the transportation risk associated with the article. Two commenters state that,

because shippers have historically calculated the net mass based on the actual explosive material contained in the article rather than the entire article, the clarification proposed in the NPRM could cause increased confusion for shippers.

Internationally, as well, there is some concern that, at least for large explosive articles, the quantity indicated on the shipping paper should be the net mass of the explosive substances contained in the article rather than the net mass of the article itself. As suggested by some commenters to the NPRM, a number of the members of UN Transport of Dangerous Goods Sub-Committee agree using the net mass of the entire article rather than the net mass of the explosive material contained in the article may not appropriately communicate the explosive hazard to emergency responders. Until this issue is resolved through a change to the UN Model Recommendations, we are, in this final rule, amending paragraph (a)(5)(i) to clarify that for explosive articles the quantity shown on a shipping paper may be expressed in terms of the net mass of the article or the net mass of the explosive substances contained in the article. It should be noted, however, that for purposes of determining the per-package quantity limitations shown in Column 9 of the HMT, § 172.101(j)(3) specifies that when articles or devices are specifically listed by name, the net quantity limitation applies to the entire article or device rather than to its hazardous components. This would include explosive articles listed by name in the HMT. For example, in the case of a listed explosive article weighing 15 kg and containing 500 grams of explosive substance, the weight shown on the shipping paper may be 500 grams or 15 kg, but the weight used for purposes of compliance with Column (9) of the HMT must be 15 kg as required by § 172.101(j)(3).

Particularly for large articles, the quantity indicated on the shipping paper should be the net mass of the explosive substances contained in the article. For small explosive articles, such as Cartridges, small arms, we believe that the net mass of the article can be used to satisfy the total quantity requirement in § 172.202(a)(5)(i). As a practical matter, it is easier, and in certain instances necessary, for an offeror to provide the net mass of the article and the net explosive mass. For example, as previously stated, the net mass of an article must be used to ensure compliance with the per package quantity limitations set forth in Column 9 of the § 172.101 Hazardous Materials Table for transport aboard aircraft or passenger rail (see § 172.101(j)(3)). However, for operational purposes, such as for stowage and segregation of large quantities of explosives or determining the quantity of explosives that can be transported on a vessel [see § 176.142(b)], the net explosive mass of the explosive substances contained in articles is needed.

Section 172.203

Paragraph (f) is revised by including the passenger and cargo aircraft limitation certification statement that is found in § 172.204. This aligns the HMR with the ICAO TI (see 4.1.5.8.1(b) of the ICAO TI). A new paragraph (i)(3) is added to specify additional shipping paper description requirements for a hazardous material consigned under an ''n.o.s.'' entry when offered for transportation by vessel. In addition, paragraph (m)(2) is revised to specify that the phrase ''Poison Inhalation Hazard'' or ''Toxic Inhalation Hazard'' is not required to be repeated if it otherwise appears in the shipping description. Finally, in paragraph (o)(3), the reference to § 173.225(c)(2) is amended to read § 173.225(b)(2).

One commenter felt the requirement to add a segregation code on the shipping paper for ''n.o.s.'' entries is unnecessary and unduly burdensome. In addition, the commenter is concerned that there may not be sufficient space on the shipping paper to indicate this notation. If, however, this requirement is adopted, the commenter requested an example of the required entry on shipping papers. We disagree. We do not feel this additional requirement is unnecessary or overly burdensome. The additional shipping paper description requirements apply only to hazardous material consigned under an ''n.o.s.'' entry when offered for transportation by vessel. We believe that consignors should be familiar with the hazards and segregation risks of their shipments, specifically ''n.o.s.'' materials that are not assigned segregation groups. By indicating the need to segregate such materials on the shipping paper, the consignor increases the likelihood that appropriate stowage procedures are followed, ensuring the safety of the vessel and its cargo. We also do not agree that there is inadequate space available on shipping papers to include the segregation group. However, we do agree that an example of the required entry should be presented for clarity and uniformity. Therefore, as recommended by the commenter, we are adding the example ''IMDG Code segregation group—1 Acids'' to § 172.203.

Section 172.204 and Section 172.321—Air Eligibility Marking

Under HM–215E (68 FR 44992), the air eligibility marking was adopted into the HMR as new § 172.321. Since publication of that final rule, the ICAO's Dangerous Goods Panel removed the air eligibility marking requirement from the ICAO Technical Instructions. In lieu of this marking, ICAO adopted a requirement that the shipping paper certification statement include the statement ''I declare that all of the applicable air transport requirements have been met'' when a hazardous material is offered for air transportation. Additionally, the revised section provided examples of the applicable air transport requirements that must be met. Based on this action, we revised the air eligibility marking requirement by making it optional rather than mandatory and adding the additional shipping paper certification statement for shipments going by aircraft. Therefore, we revised § 172.204(c)(3) by requiring that the statement ''I declare that all of the applicable air transport requirements have been met'' be included on the shipping paper in addition to the current certification statement when a hazardous material is offered for air transportation. Additionally, the revised section provides examples of the applicable air transport requirements that must be met and various section references. In order to allow shippers to expend stocks of preprinted shipping papers containing the previous certification statement, we are providing an additional ten month transitional provision for the new certification statement. Two commenters support RSPA's decision requiring shippers to sign the certification declaring compliance with requirements for air transportation. Additionally, several commenters agree with the revision to make the air eligibility marking optional. However, some commenters suggest making the marking ''permissible'' instead of ''optional'' to avoid potential confusion. We disagree. We are removing the requirement for shippers to mark packages acceptable for air transport with the air eligibility marking. This revision does not prohibit the use of the marking.

Section 172.315

Section 172.315 is amended to ensure that packages containing limited quantities which are transported by air are marked with the proper shipping name. Although the amendment was not proposed in this rulemaking, it was previously proposed and adopted under

HM–215E (68 FR 45000) but was omitted due to an editorial error during publication. The amendment provides harmonization with the ICAO Technical Instructions, which do not allow the UN number within a square-on-point border as a substitute for the proper shipping name. Note that this amendment does not preclude the ID number/square-on-point border from appearing on a package transported by air, it simply ensures that the proper shipping name is also required.

Section 172.317

A new § 172.317 is added to require a ''KEEP AWAY FROM HEAT'' handling mark on packages containing self-reactive substances of Division 4.1 or organic peroxides of Division 5.2 when such packages are transported by air.

Part 173

Section 173.3

The NPRM proposed to revise the requirements for use of salvage drums to include packages of hazardous materials that are found not to conform with the requirements of the HMR. In addition, the NPRM proposed to clarify that salvage drums may only be used for damaged, defective, non-conforming, or leaking packages identified as such after the packages have been placed in transportation. One commenter suggests that the phrase ''after having been placed in transportation'' as used in the NPRM is confusing and requests that we clarify the phrase using the terms ''pre-transportation functions'' and ''transportation functions'' as defined in a final rule published under Docket HM–223 October 30, 2003 (68 FR 61905). In response to this comment, in this final rule, we modified § 173.3(c) to clarify that salvage drums are to be used for damaged, defective, non-conforming, or leaking packages identified during transportation as ''transportation'' is defined in § 5102(12) of Federal hazardous materials transportation law—that is, the movement of property and loading, unloading, or storage incidental to the movement. When the HM–223 final rule becomes effective, the statutory definition for ''transportation'' will be added to § 171.8 of the HMR, as will definitions for ''movement,'' ''loading incidental to movement,'' ''unloading incidental to movement,'' and ''storage incidental to movement.'' Note that a package found to be leaking prior to its being placed in transportation may not be packaged in a salvage drum. Instead, it must be repackaged into an authorized packaging in accordance with applicable HMR requirements.

Section 173.24

For consistency with the UN Recommendations, paragraphs (g)(4) and (g)(5) are revised to clarify the following:

(A) That IBCs (subject to the requirements in § 173.24(g)) are permitted to be vented to reduce internal pressure; and

(B) That venting of IBCs is not conditional upon whether a bulk special provision is indicated for a particular hazardous material in the § 172.101 hazardous materials table.

In addition, paragraph (i) is revised to clarify that other general requirements specific to air transportation apply and are found in § 173.27.

Section 173.25

Paragraph (a)(2) is revised by removing the requirement to mark an overpack with the air eligibility marking. In addition, in paragraph (a)(4), we are amending the HMR to require overpacks to be marked with the word ''OVERPACK'' or, alternatively, until October 1, 2007, with a statement indicating that inside packages comply with prescribed specifications. This is in response to adoption by the United Nations of the ''OVERPACK'' marking to indicate that packages within an overpack comply with prescribed specifications when specification markings on inside packagings within the overpack are not visible.

Section 173.27

Paragraph (i) is revised to indicate that the air eligibility mark has been removed. This section references a new requirement for shippers to place the following statement at the end of the certification statement when a hazardous material is authorized for air transportation: ''I declare that all applicable air transport requirements have been met.''

Section 173.28

In paragraph (c)(2), we deleted the words ''or a UN 1H1 plastic drum'' in order to harmonize the HMR with the UN Model Regulations and remove a source of confusion within the regulated community regarding the reconditioning of a non-bulk packaging.

Section 173.115

In § 173.115, a new paragraph (k) is added (see discussion under § 172.102, Special Provision 153). One commenter noted that the proposed new § 173.115(k) would not allow aerosols to contain corrosive substances of Packing Group II. The commenter further noted that UN Special Provision 63 allows aerosols to contain corrosive substances of Packing Group II and requested we harmonize with the UN Special Provision 63 in this regard. We agree with the commenter and further note that currently, the HMR authorizes a proper shipping name of ''Aerosols, corrosive Packing Group II or III, each not exceeding 1 L capacity''. We are amending § 173.115(k) accordingly to clarify that aerosols may contain corrosive substances of Packing Group II.

Section 173.120 and Appendix H to Part 173

A commenter noted that under section § 173.120(a)(3), the reference to Appendix H for sustained combustibility tests directs the reader to Figures 5.1 and 5.2 found in the UN Recommendations. These figures are no longer in the UN Recommendations, but, rather, are located in section 32.5.2 of the Fourth Revised Edition of the UN Manual of Tests and Criteria. We agree with the commenter. Therefore, we are amending Appendix H to Part 173 to reference the UN Manual of Tests and Criteria.

Section 173.128

In paragraph (d)(1)(i), the section reference is revised to read § 173.225(c). In addition, in paragraphs (d)(1)(ii) and (d)(1)(iii), the section reference is revised to read § 173.225(b).

Section 173.132

In paragraph (b)(1), we revised the definition of LD^{50} for acute oral toxicity to indicate that adult albino rats may be tested without regard to gender. The current definition for LD^{50} for acute oral toxicity in § 173.132(b)(1) is based on the Organization for Economic Co-Operation and Development (OECD) Test Guideline (TG) 401. The OECD has agreed to three test methods that will replace the current TG 401. The United Kingdom, Germany and the United States of America took the lead in the development of the three alternative tests that OECD has now adopted and published in the OECD Guidelines for the Testing of Chemicals. In a continuing attempt to improve the estimate of acute oral toxicity while reducing the number of animals used per test, three alternative TGs have been developed and implemented to replace TG 401. The three TGs are the Fixed Dose Procedure (FDP, TG 420), the Acute Toxic Class Method (ATCM, TG 423), and the Up-and-Down Procedure (UDP, TG 425). The text is consistent

with the text in the 13th revised edition of the UN Model Regulations.

Section 173.136

We added a new paragraph (d) to provide a grandfather clause that will allow for the continued shipment of materials classified as corrosive to steel or aluminum under ASTM G 31–72 without retesting.

Section 173.137

In paragraph (c)(2), we propose to eliminate the references to ASTM G 31–72 as an acceptable test description and add a statement indicating an acceptable test is prescribed in the Manual of Tests and Criteria, Part III, Section 37.

Sections 173.150, 173.151, 173.152, 173.153 and 173.154

We are allowing most Division 6.1, Packing Group II materials to be transported under the limited quantity provisions when the packagings contain not more than 100 mL (3.38 ounces) each for liquids or 0.5 kg (1.1 pounds) each for solids. However, consistent with the limited quantity authorization for Division 6.1, Packing Group III, we are not providing a labeling exception for these materials. We are also not allowing these materials to be shipped as consumer commodities. In addition, we revised the limited quantity sections for the other hazard classes of materials to take into account materials with a subsidiary hazard of 6.1 Packing Group II. One commenter agreed with the amendment allowing numerous Class 3, PG II materials with Class 8 and other subsidiary hazards to be transported as limited quantities.

Section 173.185

In § 173.185, we amended paragraphs (c)(3) and (e)(6), to require those lithium cell and battery design types that are required to be subjected to the UN performance tests to be of a type that is proven to meet the requirements of the performance tests specified in the UN Manual of Tests and Criteria, Fourth Revised Edition. These cells and batteries are currently required to be of a type that is proven to meet the tests in the third revised edition. We also proposed a grandfather provision that would authorize a lithium cell or battery that was transported prior to the effective date of this rule that is of a type proven to meet the UN performance tests in the third revised edition to not be required to be retested in accordance with the tests in the fourth revised edition. One commenter supported this approach and stated that it is both necessary and appropriate to allow continued transport of cells and batteries tested and qualified under the UN lithium battery design qualification tests in accordance with the UN Manual of Tests and Criteria, Third Revised Edition. The commenter further stated that providing a grandfather provision for previously tested cells and batteries would avoid the need and expense of requalifying these cells and batteries in accordance with the new tests prescribed in the Fourth Revised Edition of the UN Manual of Tests and Criteria. After further consideration, we believe that authorizing an indefinite period for the transport of batteries that were tested in accordance with the UN Manual of Tests and Criteria, Third Revised Edition, 1999 may not be in the best interest of safety. The tests in the UN Manual of Tests and Criteria, Fourth Revised Edition provide a slightly higher level of safety and we believe that further consideration needs to be taken in considering whether at some point in time all applicable lithium batteries and cell design types should be proven to meet the requirements of the UN Manual of Tests and Criteria, Fourth Revised Edition. As a result, we will issue a proposal shortly specifically to address the full unrestricted adoption of the Fourth Revised Edition of the UN Manual of Tests and Criteria.

Section 173.186

In § 173.186, in paragraph (e), we amended the gross weight for UN 4G outer packages authorized for the transportation of strike-anywhere matches, to be consistent with the UN Model Regulations by increasing the weight from 27 kg (60 pounds) to 30 kg (66 pounds).

Section 173.187

We revised § 173.187 to authorize certain solid hazardous materials to be transported in DOT specification cylinders other than Specification 8 and 3HT cylinders. This change eliminates the need for DOT Exemption ''DOT–E 11548.''

Sections 173.211, 173.212, and 173.213

We revised these sections to authorize certain solid hazardous materials to be transported in DOT specification cylinders other than Specification 8 and 3HT cylinders. This change removed the need for DOT Exemption ''DOT–E 11548.''

Section 173.219

We revised § 173.219 for consistency with the UN Model Regulations and the ICAO Technical Instructions. Included in the revision is an allowance for self-inflating life-saving appliances to contain cartridges, power devices of Division 1.4S, for purposes of the self-inflating mechanism. In addition, we provided an exception from regulation for life-saving appliances containing only carbon dioxide cylinders not exceeding 100 cm^3 capacity, provided they are overpacked in rigid outer packagings with a maximum gross mass of 40 kg. Finally, the limitations currently found in Special Provision 143 are relocated to § 173.219 (see preamble discussion under Special Provision 143).

Section 173.220

Paragraph (b)(2) is amended to harmonize the requirements for transporting flammable gas powered vehicles by air with the requirements of Packing Instruction 900 of the ICAO Technical Instructions.

Section 173.224

Paragraph (b)(4) of this section is amended to include the new references for § 173.225. The section reference to § 173.225(e) for the authorization of bulk packagings is replaced with § 173.225(f) for IBCs and § 173.225(h) for other bulk packagings.

Section 173.225

This section is amended to update the Organic Peroxide Table and eliminate special provisions IB52 and T23 from § 172.102(c). The purpose of the change is to consolidate the packaging requirements for organic peroxides into one section and to have separate tables for organic peroxides authorized for transport in non-bulk packagings, IBCs, and bulk packagings other than IBCs. The changes are as follows:

Paragraph (a) is revised by adding paragraphs (b) and (b)(6), which state that bulk packagings may require a lower control temperature than those specified for non-bulk packagings and that an organic peroxide not identified in either the Organic Peroxide Table, Organic Peroxide IBC Table, or Organic Peroxide Portable Tank Table must be approved under § 173.128(c).

Paragraph (b) is revised to eliminate all IBC and other bulk packaging authorizations from column 6 of the Organic Peroxide Table. Various obsolete entries were also removed. The current paragraph (b), ''Organic Peroxide Table,'' is moved to paragraph (c) and the current paragraph (c), ''New organic peroxides, formulations and samples,'' is moved to paragraph (b).

The notes following the Organic Peroxide Table are changed as follows:

- Revise note 22 to indicate that ethylbenzene with greater than or equal to 25% of dilutant type A is acceptable.

• Revise note 23 to indicate that methyl isobutyl keytone with greater than or equal to 19% of dilutant type A is acceptable.

• Add a new note 29 to identify materials which are not included in the UN Model Regulations and note that a Competent Authority approval is required for international transportation.

• Remove Notes 9, 11, and 14 following the Organic Peroxide Table.

In addition, The Packing Method Table found in paragraph (d), is revised by replacing the 200 kg maximum quantity for solids and combination packagings listed in OP8 with a 400 kg maximum quantity. Note 2, following the table, is revised to allow 200 kg of solid material per box and up to 400 kg of material per authorized combination packaging. The note also indicates that the outer packaging must be a box (4C1, 4C2, 4D, 4F, 4G, 4H1, and 4H2) and each inner packaging must be of plastics or fiber with a maximum net mass of 25 kg. Paragraph (d)(3) is clarified by revising the text to state that the maximum content acceptable for glass receptacles used as inner packagings of a combination packaging is 0.5 kg for solids or 0.5 L for liquids.

A new paragraph (e) is added to include the new ''Organic Peroxide IBC Table'' that replaces the current ''Table 2.—Organic Peroxide IBC Code (IB52)'' in § 172.102(c)(4). The new table is revised to add an organic peroxide, ''Dicyclohexylperoxydicarbonate, not more than 42% as a stable dispersion, in water.'' In addition, the new Organic Peroxide IBC Table identifies, by technical name, those organic peroxides authorized for transportation in the IBCs that are specifically listed in the table.

A new paragraph (f) is added to include the current IBC requirements contained in paragraph (e)(5) of this section. Paragraph (f) also includes requirements that are specific to organic peroxides packaged in IBCs.

A new paragraph (g) is added to include the new ''Organic Peroxide Portable Tank Table,'' that replaces the current ''Portable Tank Code T23'' found in § 172.102(c)(7)(iii). The new table is identical to the current table except that for UN 3109, in the entry for Pinanyl hydroperoxyde, 50% is replaced by 56% and all references to self-reactive materials are removed. In addition, the Organic Peroxide Portable Tank Table provides certain portable tank requirements and identifies, by technical name, those organic peroxides authorized for transportation in the bulk packagings listed in the new paragraph (h).

The current paragraph (e) is redesignated as paragraph (h). Paragraph (h) establishes requirements that are specific to organic peroxides packaged in certain bulk packagings. Additionally, the new ''Note to Paragraph (h)(3)(vi)'' is revised to include changes brought forth by petition for rulemaking P–1428. The petition proposed to amend the current paragraph (e)(3)(vi) and allow for a second but equally acceptable example of an emergency-relief device sizing method to be added to the HMR. We agreed with the petitioner and added a statement to the new paragraph (h)(3)(vi) indicating that an additional example of an emergency-relief device sizing method can be found in the ''American Institute of Chemical Engineers Process Safety Progress Journal, June 2002 issue (Vol. 21, No. 2)'' as referenced in § 171.7(b).

The changes to this section altered the order of the paragraphs within this section; therefore, various citations were changed. Also, paragraphs referencing IB52 or TP23 are revised to indicate that those provisions no longer exist and the updated requirements are found in paragraph (e) and (g), respectively. A commenter requested that § 173.225 be revised to allow for increased industry flexibility, regulatory uniformity, and to better align with the UN Recommendations. We agree and have made the following revisions:

• Added wording to 173.225(a) to show that organic peroxides that are not identified in the organic peroxide table, but are in paragraph (b)(3) are not subject to the requirements of § 173.128.

• Removed Note 1 from both entries of tert-Butyl cumyl peroxide and Note 11 from Dicumyl peroxide.

• Removed the sentence ''The additional requirements in paragraph (h)(5)(i) and (h)(5)(ii) of this section also apply'' from § 173.225(f) and renumbered (f)(i) and (f)(ii) as (f)(1) and (f)(2), respectively.

• Revised the introductory text to Paragraph (h) to indicate that the bulk packagings that follow are for materials authorized for transport in a bulk packaging by Paragraph (h) and organic peroxides listed in the Organic Peroxide Portable Tank Table.

• Removed two occurrences of the term ''Type F'' from Paragraph (h)(3) to broaden the applicability of the provisions.

• Removed statement from § 173.225(h)(3)(xii) indicating that DOT Specification 57 portable tanks are not subject to the requirements of paragraphs (h)(3)(ii) and (h)(3)(iv) of this section.

Sections 173.226 and 173.227

We revised the packaging requirements of §§ 173.226 and 173.227 for materials poisonous by inhalation, Division 6.1, Packing Group I, Hazardous Zone A and Hazard Zone B. These amendments have: Reduced the hydrostatic test pressure of the inner drum in a drum-within-a-drum configuration authorized in § 173.226(b); standardized the minimum thickness requirements of the inner drums in the drum-within-a-drum configuration authorized in §§ 173.226(b) and 173.227(b); clarified the test requirements for inner packaging systems in § 173.226(b)(2)(iv); and in § 173.226(d) added a provision to authorize transportation of PIH materials in single packages when subjected to additional operational controls and approved by the Associate Administrator. Section 173.226(c)(2) is reformatted for ease of understanding. We removed an expired transitional date from paragraph (a) that allows the transport of welded cylinders filled before October 1, 2003 for the purpose of reprocessing or disposal of cylinders's content until December 31, 2003. One commenter recommended that we include a provision in § 173.227(b) to allow for the testing of the outer drum of a drum-in-drum package as either as a package intended to contain inner packagings (combination package) or as a single packaging intended to contain solids or liquids. We agree and have revised § 173.227(b) accordingly. Another commenter suggested that we increase the minimum thickness of a UN 1A1 drum in PIH service from .69 mm to 1.0 mm. Increasing the minimum thickness of a UN 1A1 drum in PIH service was not proposed in this rulemaking and inclusion of such a requirement is beyond the scope of this rulemaking. However, we are reviewing this request for consideration in a future rulemaking.

Section 173.249

Paragraph (c) is revised to be consistent with the current ''Bromine'' entry in the § 172.101 ''Hazardous Material Table'' that authorizes the use of a UN portable tank conforming to tank code T22. A commenter suggested that we include a provision authorizing the returning of a tank containing bromine residue. We agree that such a provision is necessary and have amended § 173.249 accordingly.

Sections 173.306 and 173.307

To add clarity to the HMR, the text currently found in § 173.306(i) is removed and replaced with the text

currently found in § 173.307(a)(5). Since § 173.306 is devoted exclusively to limited quantities of compressed gases, relocating § 173.307(a)(5) to § 173.306 makes the exception easier to find.

Section 173.313

A new § 173.313 is added to serve as the new location for the Portable Tank Code T50 Table. The table is renamed ''UN Portable Tank Table for Liquefied Compressed Gases.'' The table provides the maximum allowable working pressures, bottom opening requirements, pressure relief requirements and degree of filling requirements for liquefied compressed gases permitted for transport in portable tanks. The change relocates these packaging requirements to Part 173, which is a more appropriate location, and makes the special provisions less cumbersome. In addition, the new UN Portable Tank Table for Liquefied Compressed Gases is amended by revising the Column 3 heading to read ''Minimum design pressure (bar) * * *'' The values in column 3 are actually minimum values, however the title of the column is misleading because it uses the term ''Maximum allowable working pressure (bar) * * *''

Section 173.315

In paragraph (a), the reference to ''portable tank provision T50 in § 172.102'' is revised to read ''the UN Portable Tank Table for Liquefied Compressed Gases in § 173.313.''

Section 173.323

After further considering the proposed changes to the packaging authorizations for ethylene oxide in § 173.323, we noted that the total quantity per package of ethylene oxide authorized for transport when glass inner receptacles are used was proposed to be increased from 100 grams to 2.5 kg. Due to the extremely flammable and explosive properties of ethylene oxide and the fragile properties of glass, after further consideration we have chosen not to adopt the 2.5 kg outer package limit found in the UN Recommendations and to retain our current outer package limit of 100 grams. The total quantity per package when metal inner receptacles are used will remain unchanged from the proposed 2.5 kg. In this rule, paragraphs (b)(1)–(b)(3) are revised and consolidated for consistency with current international requirements for the transportation of ethylene oxide in combination packagings. Paragraphs (b)(1)–(b)(3) provide the current authorizations for glass, aluminum, and metal receptacles respectively. Amendments to this section include (1) removing the HMR limitation of 12 inner receptacles per outer package currently applied to aluminum and other metal receptacles, (2) removing the overpack restriction in (b)(2) which specifies a maximum of 10 boxes per overpack, (3) requiring a hot water bath test for all inner receptacles, (4) removing the pressure relief device and burst pressure requirements currently applied to metal receptacles, (5) applying the same outer package authorizations consistently to all inner packaging types and allowing any outer package authorized in § 172.201(b), and (6) requiring all inner packagings to be suitably cushioned (the top and bottom pad and perimeter liner requirement currently only applied to outer packages containing aluminum inner packagings is removed). Though we are eliminating the option to utilize certain packaging authorizations for glass and aluminum inner packagings, we believe that this change will have little or no economic impact on the ethylene oxide industry because of the amount of materials that are transported in international commerce. 3M Package Engineering requested that we reduce the maximum quantity of ethylene oxide permitted in any metal inner packaging from 340 g (12 ounces) to 200 g (7 ounces). They stated that such a change would more adequately align the HMR with international standards. We agree that such a change would align the HMR with international requirements. However, allowing a metal inner packaging to contain a maximum quantity of 340 g (12 ounces) does not limit compliance with international requirements. In addition, we cannot adopt the 200 g (7 ounces) limitation in this rulemaking because such a change would be more restrictive then the requirements we proposed. We may consider adopting the 200 g (7 ounces) limitation in a future rulemaking.

Part 175

Section 175.10

Consistent with an amendment to the ICAO TI, we are requiring that aerosol cans that are carried aboard an aircraft in accordance with § 175.10(a)(4) have their release devices protected by a cap or other suitable means. In addition, the ICAO Dangerous Goods Panel will convene a series of working groups to develop recommendations for consideration during the 20th session of the Dangerous Goods Panel to further review this issue. These recommendations may lead to additional amendments to the ICAO TI. Finally, we note that non-flammable gases (*e.g.*, nitrogen) other than carbon dioxide are used for the operation of mechanical limbs. Consistent with an amendment to the ICAO TI, we are proposing to provide an exception from the HMR for mechanical limbs that are powered by any Division 2.2 gas. One commenter recommended that the release device requirements added to § 175.10 also be incorporated into Part 173. Specifically, they requested that aerosol cans that are transported in commerce be protected by a cap or other suitable means to prevent inadvertent release. They indicated that this change should be coordinated with the Federal Aviation Administration (FAA). We disagree. Section 173.24(b)(1) states that each package used for the shipment of hazardous materials must be constructed, maintained, filled, its contents so limited, and closed, so that under conditions normally incident to transportation there will be no identifiable release of hazardous materials to the environment. We feel this section adequately addresses the commenter's concerns, and allows shippers the flexibility to properly protect aerosol cans.

Section 175.85

In § 175.85, a new paragraph (j) is added to specify the cargo location of a package bearing the ''KEEP AWAY FROM HEAT'' handling marking.

Part 176

Section 176.2

Certain definitions are revised. The definitions for ''Explosive article'' and ''Explosive substance'' are revised to remove an incorrect reference. The definition for ''Magazine'' is revised to include a compartment in the vessel. The definition for ''Magazine'' is also revised to specify vessel storage location and accessibility. The term ''Transport unit'' is revised to read ''Cargo transport unit'' to be consistent with Amendment 32 of the IMDG Code. In addition, in the definition ''In containers or the like'' the term ''transport unit'' is removed and the term ''cargo transport unit'' is added in its place.

Section 176.27

In this section, the words ''transport unit'' are replaced with the words ''transport vehicle'' in each place they appear to be consistent with the removal of the term ''transport unit'' from the definitions in § 176.2.

Section 176.63

Paragraph (e) is revised to align the definition of ''Closed cargo transport unit'' to be consistent with the

definition in Amendment 32 of the IMDG Code.

Section 176.76

Paragraph (i) is revised to clarify that for container ships, a distance equivalent to one container space athwartships (*i.e.,* in the direction of the breadth of the vessel) away from possible sources of ignition applied in any direction satisfies the requirement that a cargo transport unit packed or loaded with flammable gas or flammable liquid having a flashpoint below +23 °C transported on deck be stowed ''away from'' possible ignition sources. This is consistent with Amendment 32 of the IMDG Code. In addition, in paragraphs (h) and (i), the words ''transport unit'' are removed and replaced with the words ''cargo transport unit'' in each place they appear to be consistent with Amendment 32 of the IMDG.

Section 176.83

Paragraph (l) is revised to correct an error pertaining to the Segregation Table that sets forth the general requirements for segregation of containers on board hatchless container vessels. In addition, throughout the section the words ''transport units'' are removed and replaced with the words ''cargo transport units'' in each place they appear to be consistent with Amendment 32 of the IMDG. A new paragraph (m) is added to specify the provisions for segregation groups.

Section 176.84

Paragraph (a) is revised to specify the various chemical groups listed in the segregation table. In the paragraph (b) Table of Provisions, we added eleven new provisions (codes) for certain stowage and segregation requirements for hazardous materials that are transported by vessel. In addition, in paragraph (c)(2) Provisions for the stowage of Class 1 (explosive) materials, we revised three notes. The terms ''separated from'' and ''away from'' in the codes are defined in § 176.83 of the HMR.

Code 133 is added to the entries ''Barium chlorate solution,'' UN3405; ''Barium perchlorate solution,'' UN3406; and ''Chlorate and magnesium chloride mixture solution,'' UN3407, that requires the material to be stowed ''separated from'' sulfur.

Code 134 is added to the entry ''Aluminum alkyl halides, solid,'' UN3461, that requires the material to be stowed ''separated from'' UN2716.

Code 135 is added to the entries ''Methylamine, aqueous solution,'' UN1235 and ''Trimethylamine, aqueous solutions,'' UN1297, that requires the material to be stowed ''separated from'' mercury and mercury compounds.

Code 136 is added to the entry ''Tributylphosphane,'' UN3254, that requires the material to be stowed ''separated from'' carbon tetrachloride.

Code 137 is added to the entries ''Arsenic compounds, liquid, n.o.s.,'' UN1556 and ''Arsenic compounds, solid, n.o.s.,'' UN1557, that requires arsenic sulphides to be stowed ''separated from'' acids.

Code 138 is added to the entries for UN1448; UN1456; UN1479; UN1482; UN1490; UN1503; UN1515; UN3085; UN3087; UN3098; UN3099; UN3139; and UN3214, that requires the material to be stowed ''separated from'' peroxides.

Code 139 is added to the entry ''1, 4-Butynediol,'' UN2716, that requires the material to be stowed ''separated from'' mercury salts.

Code 140 is added to the entry ''1, 4-Butynediol,'' UN2716, that requires the material to be stowed ''separated from'' UN3052 and UN3461.

Code 141 is added to the entries for UN1732; UN1755; UN1806; UN1908; UN2433; UN2859; and UN2861, that requires the material to be stowed ''away from'' radioactive materials.

Code 142 is added to the entries for UN1748; UN2208; and UN2880, that requires packages in cargo transport units to be stowed so as to allow for adequate air circulation throughout the cargo.

Code 143 is added to the entry for Organometallic Substance, Liquid, Pyrophoric, UN3392, prohibiting transportation on any vessel carrying explosives (except explosives in Division 1.4, compatibility group S.

Note 19E is revised to specify that materials under entries NA0331; UN0004; UN0222; UN0241; and UN0402 must be stowed ''away from'' explosives containing chlorates or perchlorates.

Note 22E is revised to specify that materials under the entry ''Explosive, blasting, type C,'' must be stowed ''away from'' ammonium compounds and explosives containing ammonium compounds or salts.

Note 23E is revised to specify that materials under entries UN0247; UN0395; UN0396; UN0397; UN0398; UN0399; UN0400; UN0449; and UN0450 must be ''separated from'' Division 1.4 and ''separated longitudinally by an intervening complete compartment or hold from'' Division 1.1, 1.2, 1.3, 1.5, and 1.6 except from explosives of compatibility group J.

A commenter questioned how adequate air circulation was achieved in a cargo transport unit. In addition, the commenter stated that it fails to understand why air circulation is necessary in a closed cargo transport unit, as indicated by Stowage Provision 142. Stowage Provision 142 indicates that packages in cargo transport units must be stowed so as to allow for adequate air circulation throughout the cargo. We feel cargo transport units that are properly loaded will allow for the adequate circulation of air by natural means so as to safeguard against excessive heat buildup within the cargo.

Section 176.116

In paragraph (c), the words ''transport units'' are revised to read ''cargo transport units.'' In addition, a new paragraph (f) is added to specify the under deck stowage requirements of Class 1 (explosive) materials allocated stowage categories 09 and 10.

Sections 176.122 and 176.124

Sections 176.122 and 176.124 are removed and reserved.

Section 176.128

In § 176.128, the section heading and section are revised.

Section 176.132

Section 176.132 is removed and reserved.

Section 176.133

Section 176.133 is revised to clarify the construction and stowage location requirements for magazine stowage type C.

Section 176.136

Section 176.136 is revised to clarify the special stowage requirements of Class 1 (explosive) materials. In addition, minor editorial revisions are made.

Section 176.138

Paragraph (a) is removed and reserved to be consistent with Amendment 32 of the IMDG Code. This paragraph currently requires Class 1 (explosive) material that is stowed on deck to be carried as close to the vessel's centerline as practicable.(See also change to § 176.170.)

Section 176.142

Paragraph (a) is revised to remove ''Pyrophoric organometallic compound, water-reactive, n.o.s.'' from the list of liquid hazardous materials of extreme flammability that may not be transported in a vessel carrying Class 1 (explosive) materials. Additionally, we added to the above list the following new liquid entries:

• ''Organometallic substance, liquid, pyrophoric, UN3392''
• ''Organometallic substance, liquid, pyrophoric, water-reactive, UN3394''

These changes are consistent with Amendment 32 of the IMDG Code.

Section 176.144

In this section, the words ''transport unit'' are replaced with the words ''cargo transport unit'' in each place they appear to be consistent with the definition in Amendment 32 of the IMDG Code. Additional notes are added to Table 176.144(a)—''Authorized Mixed Stowage For Explosives'' to address additional exceptions for mixed stowage of Class 1 materials.

Section 176.146

In § 176.146, in paragraph (d)(1), the wording ''transport units'' is revised to read ''cargo transport units.''

Section 176.168

In § 176.168, in the title before the section heading, the wording ''TRANSPORT UNITS AND SHIPBORNE BARGES'' are revised to read ''CARGO TRANSPORT UNITS AND SHIPBORNE BARGES.''

Section 176.170

A new paragraph (b) is added to prohibit freight containers loaded with Class 1 (explosive) materials, except for explosives in Division 1.4, from being stowed in the outermost row of containers. This change is consistent with Amendment 32 of the IMDG Code.

Section 176.174

Paragraphs (a) and (b) are revised to remove the references to portable magazines. This change is consistent with Amendment 32 of the IMDG Code.

Section 176.600

In § 176.600, in paragraph (a), the wording ''closed transport units'' is revised to read ''closed cargo transport units.''

Part 178

Section 178.274

Paragraph (f)(v) is revised to more clearly specify the rated flow capacity marking required to be placed on every UN portable tank's pressure relief device.

Section 178.275

Paragraph (i)(2) is revised to more clearly specify the combined delivery capacity of UN portable tank's pressure relief systems.

Section 178.276

In paragraph (a)(4)(ii)(A), the reference to ''portable tank special provision T50'' is revised to read ''the UN Portable Tank Table for Liquefied Compressed Gases in § 173.313.'' In addition, paragraph (d), the reference to ''portable tank special provision T50 in § 172.102(c)(7)'' is revised to read ''UN Portable Tank Table for Liquefied Compressed Gases in § 173.313.'' Finally, in paragraph (e)(3), the reference to ''portable tank special provision T50 in § 172.102'' is revised to read ''the UN Portable Tank Table for Liquefied Compressed Gases in § 173.313.''

Section 178.602

Paragraph (b) is revised to clarify the requirements applicable to filling packaging other than bags in preparation for testing.

Section 178.603

Paragraph (c) is revised to add a definition indicating that a minimum specific gravity for solutions of water and anti-freeze is 0.95 for testing at 18 °C (0 °F) or lower. Additionally, in paragraph (e), we specify the drop test height for liquids in single packagings and for inner packagings of combination packagings, when the test is performed in water.

Section 178.810

Paragraph (b)(3) is revised to specify that water/anti-freeze solutions with a minimum specific gravity of 0.95 for testing at −18 °C (0 °F) or lower are acceptable test liquids for use when conducting IBC drop tests. This is consistent with our amendment to § 178.603(c)(1) regarding the testing of non-bulk packages. In addition, we added a sentence to clarify that when conditioning is required by § 178.810(b), the conditioning specified in § 178.802 (which requires a higher temperature) does not apply.We received a comment from the Reusable Industrial Packaging Association (RIPA) concerning this revision. RIPA believes that RSPA intended to clarify that water/antifreeze solutions with a minimum specific gravity of 0.95 are equivalent for testing purposes to IBCs containing only water, thereby eliminating the need to adjust the drop height of test units. RIPA stated that § 178.810(b)(3) should be revised to indicate that this solution may be considered equivalent to water for testing purposes. We agree and have revised the section accordingly.

Part 180

Section 180.350

Paragraph (c) is revised to expand the definition of routine maintenance of IBCs to include flexible, plastic and textile IBCs.

Section 180.352

Paragraph (d)(1)(iv) is revised to require persons other than the owner of metal, rigid plastics, and composite IBCs to mark the IBC indicating routine maintenance has been performed when such maintenance is performed. A new paragraph (d)(1)(v) is added to this section. This paragraph states that retests and inspections performed under paragraphs (d)(1)(i) and (ii) of this section may be used to satisfy the tests and inspections required by paragraph (b) of this section. This addition incorporates changes made to the 12th revised edition of the Transport of Dangerous Goods Model Regulations into the HMR. Three commenters requested that we revise § 180.352 to distinguish requirements applicable to repair and routine maintenance of IBCs. We agree and have revised § 180.352 creating a new paragraph entitled, ''Requirements applicable to routine maintenance of IBCs.''

V. Regulatory Analyses and Notices

A. Statutory/Legal Authority for This Rulemaking

This final rule is published under the following statutory authorities:

1. 49 U.S.C. 5103(b) authorizes the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce. This final rule amends regulations to maintain alignment with international standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations and vessel stowage requirements. To this end, as discussed in detail earlier in this preamble, the final rule amends the HMR to more fully align it with the biennial updates of the UN Recommendations, the IMDG Code and the ICAO Technical Instructions to facilitate the transport of hazardous materials in international commerce.

2. 49 U.S.C. 5120(b) authorizes the Secretary of Transportation to ensure that, to the extent practicable, regulations governing the transportation of hazardous materials in commerce are consistent with standards adopted by international authorities. This final rule amends the HMR to maintain alignment with international standards by incorporating various amendments to facilitate the transport of hazardous material in international commerce. To this end, as discussed in detail earlier in this preamble, the final rule incorporates changes into the HMR

based on the Thirteenth Revised Edition of the UN Recommendation, Amendment 32 to the IMDG Code, and the 2005–2006 ICAO Technical Instructions, which become effective January 1, 2005. The continually increasing amount of hazardous materials transported in international commerce warrants the harmonization of domestic and international requirements to the greatest extent possible. Harmonization serves to facilitate international transportation; at the same time, harmonization ensures the safety of people, property, and the environment by reducing the potential for confusion and misunderstanding that could result if shippers and transporters were required to comply with two or more conflicting sets of regulatory requirements. While the intent of this rulemaking is to align the HMR with international standards, we review and consider each amendment on its own merit based on its overall impact on transportation safety and the economic implications associated with its adoption into the HMR. Our goal is to harmonize without sacrificing the current HMR level of safety and without imposing undue burdens on the regulated public. Thus, as discussed in detail earlier in this preamble, there are several instances where we elected not to adopt a specific provision of the UN Recommendations, the IMDG Code or the ICAO Technical Instructions; further, we are maintaining a number of current exceptions for domestic transportation that should minimize the compliance burden on the regulated community.

B. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is not considered a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, was not reviewed by the Office of Management and Budget. This final rule is not considered a significant rule under the Regulatory Policies and Procedures of the Department of Transportation [44 FR 11034]. Benefits resulting from the adoption of the amendments in this final rule include enhanced transportation safety resulting from the consistency of domestic and international hazard communications and continued access to foreign markets by domestic shippers of hazardous materials. This final rule applies to offerors and carriers of hazardous materials, such as chemical manufacturers, chemical users and suppliers, packaging manufacturers, distributors, battery manufacturers, radiopharmaceutical companies, and training companies.

The majority of amendments in this final rule should result in cost savings and ease the regulatory compliance burden for shippers engaged in domestic and international commerce, including trans-border shipments within North America. For example, cost savings will be realized by shippers and carriers as a result of the following:

—Eliminating the air eligibility marking requirement.
—Amendments allowing numerous Class 3, PG II materials with a Class 8 sub-risk and others to be transported as a limited quantity.
—Allowing cylinders to be used for many more substances than currently authorized.
—Allowing salvage packagings to be used for non-conforming packages; and generally minimizing differences between U.S. and international hazardous materials transportation regulations.

We are authorizing a delayed effective date and a one-year transition period to allow for training of employees and to ease any burden on entities affected by the amendments. The total net increase in costs to businesses in implementing this rulemaking is considered to be minimal and a regulatory evaluation is available for review in the Docket.

C. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (''Federalism''). This final rule preempts State, local and Indian tribe requirements but does not propose any regulation that has substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazardous material transportation law, 49 U.S.C. 5101–5127, contains an express preemption provision (49 U.S.C. 5125(b)) that preempts State, local, and Indian tribe requirements on certain covered subjects. Covered subjects are:

(1) The designation, description, and classification of hazardous materials;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;

(3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous; and

(5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This final rule addresses covered subject items (1), (2), (3), and (5) above and preempts State, local, and Indian tribe requirements not meeting the ''substantively the same'' standard. This final rule is necessary to incorporate changes adopted in international standards, effective January 1, 2005. If the changes in this final rule are not adopted in the HMR, U.S. companies, including numerous small entities competing in foreign markets, are at an economic disadvantage. These companies are forced to comply with a dual system of regulations. The changes in this rulemaking are intended to avoid this result. Federal hazardous materials transportation law provides at section 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. The effective date of Federal preemption is March 21, 2005.

D. Executive Order 13175

This final rule was analyzed in accordance with the principles and criteria contained in Executive Order 13175 (''Consultation and Coordination with Indian Tribal Governments''). Because this final rule does not have tribal implications, does not impose substantial direct compliance costs, and is required by statute, the funding and consultation requirements of Executive Order 13175 do not apply.

E. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities, unless the agency determines that a rule is not expected to have a significant impact on a substantial number of small entities. This final rule facilitates the transportation of hazardous materials in international commerce by providing consistency with international standards. This final rule applies to offerors and carriers of hazardous materials, some of whom are small entities, such as chemical users and suppliers, packaging manufacturers, distributors, battery manufacturers, and

training companies. As discussed above, under *Executive Order 12866*, the majority of amendments in this final rule should result in cost savings and ease the regulatory compliance burden for shippers engaged in domestic and international commerce, including trans-border shipments within North America.

Many companies will realize economic benefits as a result of these amendments. Additionally, the changes brought forth by this final rule will relive U.S. companies, including small entities competing in foreign markets, from the burden of complying with a dual system of regulations. Therefore, I certify that these amendments will not, if promulgated, have a significant economic impact on a substantial number of small entities.

This final rule has been developed in accordance with Executive Order 13272 (''Proper Consideration of Small Entities in Agency Rulemaking'') and DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts of draft rules on small entities are properly considered.

F. Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995, no person is required to respond to a collection of information unless it displays a valid Office of Management and Budget (OMB) control number. Section 1320.8(d), Title 5, Code of Federal Regulations requires that RSPA provide interested members of the public and affected agencies an opportunity to comment on information collection and recordkeeping requests. RSPA currently has two approved information collections affecting this final rule: OMB Control Number 2137–0557, ''Approvals for Hazardous Materials'' with 25,605 burden hours and $562,837.40 burden costs; and OMB Control Number 2137–0613, ''Subsidiary Hazard Class & Number/Type of Packagings'' with 63,309 burden hours and $216,705 burden costs.

There are minor editorial changes under this rule. However, there is no net increase in burden for OMB Control Number 2137–0557 or OMB Control Number 2137–0613. We estimate that the total information collection and recordkeeping burden as follows:

''Approvals for Hazardous Materials''

OMB Number 2137–0557:

Total Annual Number of Respondents: 3,523.

Total Annual Responses: 3,874.8.

Total Annual Burden Hours: 25,605.

Total Annual Burden Cost: $562,837.40.

''Subsidiary Hazard Class & Number/Type of Packagings''

OMB Number 2137–0613:

Total Annual Number of Respondents: 250,000.

Total Annual Responses: 6,337,500.

Total Annual Burden Hours: 17,604.

Total Annual Burden Cost: $216,705.

Total First Year Burden Hours: 45,705.

Total First Year Burden Cost: $1,115,992.

Requests for a copy of this information collection should be directed to Deborah Boothe or T. Glenn Foster, Office of Hazardous Materials Standards (DHM–10), Research and Special Programs Administration, Room 8422, 400 Seventh Street, SW., Washington, DC 20590–0001, telephone (202) 366–8553.

G. Regulatory Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

H. Unfunded Mandates Reform Act

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $120.7 million or more to either State, local or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of the rule.

I. Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA) requires Federal agencies to consider the consequences of major Federal actions and prepare a detailed statement on actions significantly affecting the quality of the human environment. We developed an assessment to determine the effects of these revisions on the environment and whether a more comprehensive environmental impact statement may be required. Our findings conclude that there are no significant environmental impacts associated with this final rule. Consistency in the regulations for the transportation of hazardous materials aids in the shipper's understanding of what is required and permits shippers to more easily comply with safety regulations and avoid the potential for environmental damage or contamination. For interested parties, an environmental assessment is available in the public docket.

J. Privacy Act

Anyone is able to search the electronic form of any written communications and comments received into any of our dockets by the name of the individual submitting the document (or signing the document, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78) or you may visit *http://dms.dot.gov.*

List of Subjects

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

49 CFR Part 172

Education, Hazardous materials transportation, Hazardous waste, Incorporation by reference, Labeling, Markings, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 173

Hazardous materials transportation, Incorporation by reference, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

49 CFR Part 175

Air carriers, Hazardous materials transportation, Incorporation by reference, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 176

Hazardous materials transportation, Incorporation by reference, Maritime carriers, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 178

Hazardous materials transportation, Incorporation by reference, Motor vehicle safety, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 180

Hazardous materials transportation, Motor carriers, Motor vehicle safety, Packaging and containers, Railroad safety, Reporting and recordkeeping requirements.

Issued in Washington, DC on November 24, 2004, under authority delegated in 49 CFR part 1.

Elaine E. Joost,

Acting Deputy Administrator, Research and Special Programs Administration.

[FR Doc. 04–27087 Filed 12–17–04; 8:45 am]

BILLING CODE 4910–60–P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 171, 172, 173 and 175

[Docket No. RSPA–02–11654 (HM–228)]

RIN 2137–AD18

Hazardous Materials: Revision of Requirements for Carriage by Aircraft

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Final rule.

SUMMARY: This final rule amends the requirements in the Hazardous Materials Regulations (HMR) for the transportation of hazardous materials by aircraft. This final rule clarifies the applicability of part 175; clarifies the exceptions from regulation for operator equipment and supplies, special aircraft operations, and passengers and crewmembers; revises separation distances for the shipment of radioactive materials by cargo aircraft; and updates the regulations to comply with security requirements for explosive special permits. These changes are being made to finalize outstanding petitions for rulemaking, convert certain special permits into regulations, and promote international harmonization, where appropriate.

DATES: The effective date of these amendments is October 1, 2006. Voluntary compliance is authorized April 21, 2006.

FOR FURTHER INFORMATION CONTACT: Deborah Boothe, Office of Hazardous Materials Standards, (202) 366–8553, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 400 Seventh Street SW., Washington, DC 20590.

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Background

The Hazardous Materials Regulations (HMR; 49 CFR parts 171–180) govern the transportation of hazardous materials in commerce by all modes of transportation, including aircraft. Parts 172 and 173 of the HMR include requirements for classification and packaging of hazardous materials, hazard communication, and training of employees who perform functions subject to the requirements in the HMR. Part 175 contains requirements applicable to all aircraft operators transporting hazardous materials by air, and outlines exceptions allowing passengers and crew members to carry hazardous materials aboard aircraft under certain conditions. In addition, aircraft operators must comply with the FAA hazardous materials training requirements in 14 CFR parts 121 or 135, as appropriate.

In this final rule, the Pipeline and Hazardous Materials Safety Administration (PHMSA), with the concurrence of the Federal Aviation Administration (FAA), is adopting amendments to part 175 and other sections of the HMR applicable to the transportation of hazardous materials by aircraft. These amendments will:

(1) Modify or clarify requirements to promote compliance and enforcement;

(2) Enhance the security of transportation of explosives by aircraft; and

(3) Facilitate international commerce.

On February 26, 2002, the Research and Special Programs Administration (RSPA)—the predecessor agency to PHMSA—published an advance notice of proposed rulemaking (ANPRM; 67 FR 8769) inviting public comments on how to improve the clarity of the HMR requirements for transporting hazardous materials by aircraft. We received 26 comments in response to the ANPRM. On November 10, 2004, RSPA published a notice of proposed rulemaking (NPRM; 69 FR 76044) proposing specific changes to the HMR sections applicable to the transportation of hazardous materials by aircraft. On January 21, 2005, (70 FR 3179) in response to requests from interested parties, we extended the comment period on the NPRM until March 18, 2005.

We received 24 comments addressing issues raised by the NPRM from the following: Air Line Pilots Association, International (ALPA); United Parcel Service, Inc. (UPS); Air Transport Association (ATA); FedEx Express; trade associations such as the International Association of Airport Duty Free Stores; individual air carriers; and others involved in the transportation of hazardous materials by aircraft. Most commenters were supportive of PHMSA(s efforts to revise part 175 in order to clarify certain requirements and make the part more user-friendly.

In this final rule, we are adopting most changes proposed in the NPRM. Relevant portions of the comments are discussed in the following sections of the preamble.

II. Section-by-Section Review

A. Sections 175.1 and 175.5 Purpose, Scope and Applicability

Part 175 of the HMR prescribes requirements for all aircraft operators transporting hazardous materials in commerce in the United States. The requirements in part 175 are in addition to requirements contained in parts 171, 172, and 173 (see § 175.1). Part 175 applies to the acceptance for

transportation, loading, and transportation of hazardous materials in any aircraft within the United States and aircraft of United States registry anywhere in air commerce (see § 175.5). Part 175 includes exceptions from the requirements of the HMR for those aircraft under the direct, exclusive control of a government and not used for commercial purposes (see § 175.5).

In this final rule, we are modifying § 175.1 to indicate part 175 applies to any person who performs, attempts to perform, or is required to perform a function subject to the HMR, including:

(1) Air carriers, indirect air carriers, and freight forwarders and their flight and non-flight employees, agents, subsidiary and contract personnel (including cargo, passenger and baggage acceptance, handling, loading and unloading personnel); and

(2) Air passengers that carry any hazardous material on their person or in their carry-on or checked baggage.

In its comments, the Council on Radionuclides and Radiopharmaceuticals, Inc. (CORAR) requests clarification of the applicability of part 175 to multi-modal ground carriers and their shippers who offer or transport packages by ground before or after transport by air. If part 175 applies to these entities, CORAR suggests this will subject a significant number of persons within the network of distribution of radiopharmaceuticals to these regulations (e.g. reporting deficiencies and training). CORAR also suggests PHMSA should provide additional time before the effective date of the final rule for the total impact to be assessed and for necessary actions such as training or implementation.

Part 175 currently applies to all persons who accept and prepare shipments for air transportation, including persons who accept packages for air transportation. Ground handling crews, contracted employees, and air freight forwarders that accept packages for air transportation are subject to part 175. As are subsidiary companies formed by aircraft operators to build pallets and handle, load, and unload hazardous materials in air transportation. In this final rule, we are clarifying the applicability of the HMR to air shipments. All functions performed to prepare hazardous materials shipments for air transportation must be performed by a hazmat employee trained in accordance with the HMR, just as was required prior to this rulemaking. We do not feel more time is necessary to allow training to be conducted for hazmat employees currently covered under part 175.

ATA indicates that the proposed applicability statement in § 175.1 is too broad and should be further defined to clarify its non-applicability to employees whose functions are unconnected to air commerce, such as ground delivery personnel of a cargo air carrier who are subject to part 177. ATA suggests adding ''who are engaged in air operations'' to § 175.1(b)(1) to clarify its applicability.

We disagree. In a final rule published on July 28, 2005 (HM–223A (70 FR 43638)), we defined a ''person who offers or offeror'' to mean any person who performs or is responsible for performing any pre-transportation function required by the HMR or who tenders or makes the hazardous material available to a carrier for transportation in commerce. As we said in HM–223A, a carrier is not an offeror when it performs a function as a condition of accepting a hazardous material for transportation in commerce or when it transfers a hazardous material to another carrier for continued transportation without performing a pre-transportation function. We also clarified there may be more than one offeror of a hazardous material or more than one party regulated by the HMR concerning a shipment and each offeror or such party is responsible only for the specific pre-transportation function it performs or is required to perform. In addition, we clarified each offeror or carrier may rely on information provided by a previous offeror or carrier unless the offeror or carrier knows or a responsible person acting in the circumstances and exercising responsible care, would have knowledge indicating the information provided is incorrect.

Currently, some packaging, shipping, and freight forwarding facilities accepting hazardous materials for air transportation appear to believe they are not subject to the requirements in part 175 because they are not air carriers. However, the HMR require each person who offers, accepts, or transports packages by air to comply with all applicable regulatory requirements. Though an air carrier is responsible for compliance with the applicable requirements in part 175, packaging, shipping, and freight forwarding facilities are also subject to the requirements in part 175 when accepting hazardous materials for air transportation.

Therefore, in this final rule we are adopting the proposed provisions to clarify the requirements of the HMR applicable to the transportation of hazardous materials aboard aircraft apply to those persons who offer, accept, or transport hazardous materials in commerce by aircraft to, from, or within the United States. We are relocating § 175.5(a)(1) to § 175.1(b), relocating § 175.5(a)(2) to § 173.7(f), and eliminating § 175.5(a)(3). In addition, we are modifying § 175.1 to clarify part 175 applies to any person who performs, attempts to perform, or is required to perform any function subject to this subchapter, including—

(1) Air carriers, indirect air carriers, and freight forwarders and their flight and non-fight employees, agents, subsidiary and contract personnel (including cargo, passenger and baggage acceptance, handling, loading and unloading personnel); and

(2) Air passengers that carry any hazardous material on their person or in their carry-on or checked baggage are not exempted from the HMR in accordance with § 175.10(a). On February 28, 2003 RSPA clarified the applicability of the HMR to airline passengers (see Notice No. 03–2; 68 FR 9735).

B. Section 175.3 Unacceptable Hazardous Materials Shipments

No amendments were proposed or adopted for this section and no comments were received.

C. Section 175.10 Exceptions

Section 175.10(a)(2) excepts certain hazardous materials required to be aboard an aircraft in accordance with applicable airworthiness requirements and operating instructions from the HMR. However, items of replacement for such materials and other company materials (COMAT) of an airline that are hazardous materials must be properly classed, described, marked, labeled, packaged, handled, stored, and secured in accordance with the HMR. These requirements are discussed in an advisory notice on COMAT published on December 13, 1996 (61 FR 65479). In § 175.10(a)(2) the HMR provide the following limited exceptions for COMAT:

(1) Items of replacement for installed equipment containing hazardous materials are subject to all relevant provisions of the HMR and are only excepted from the packaging requirements of the HMR if they are contained in specialized packaging providing at least an equivalent level of protection to that of the required packaging;

(2) Aircraft batteries are excepted from the quantity limitations in §§ 172.101 and 175.75(a); and

(3) An aircraft tire assembly is not subject to the HMR if it is not inflated

to a gauge pressure exceeding the maximum rated pressure for the tire.

Other hazardous materials such as paint, chemicals for corrosion removal, automotive batteries, wastes, and engine-powered ground equipment containing fuels do not qualify for this limited relief.

Section 175.10 also identifies other hazardous materials which are excepted from the HMR. The materials include: (1) certain personal items of passengers or crew members, such as toiletries, alcoholic beverages, and medicinal items; and (2) certain hazardous materials for special aircraft operations, such as avalanche control flights, aerial applications, and sport parachute jumping. We are reorganizing current exceptions in § 175.10 into three different sections:

(1) § 175.8 covering operator equipment and items of replacement (including COMAT);

(2) § 175.9 covering special aircraft operations (crop-dusting, parachuting, etc.); and

(3) § 175.10 covering exceptions for passengers, crewmembers, and air operators.

In addition, § 175.8 clarifies the exceptions for aircraft spares (COMAT) is applicable only to an operator transporting its own equipment.

Most commenters agree with the proposal to reorganize this section into three separate sections focused on COMAT, emergency response, and passenger related areas, respectively. Some commenters express concern to the exceptions for quantity limits on small arms ammunition, COMAT, batteries in wheelchairs, self-heating hair curlers, and self-defense spray. In addition, commenters requested clarification of the difference between carry-on vs. checked baggage. The comments submitted on those issues and our responses are discussed below.

1. Quantity Limits on Small Arms Ammunition

The NPRM proposed to limit the amount of small arms ammunition allowed in checked baggage to 5 kg per person. Alaska Airlines, Alaska Air Carriers Association (AACA), and Customs and Border Protection, Port of Portland express concern regarding the quantity limits and clarification on ''other packagings'' authorized to carry small arms ammunition. Alaska Airlines and AACA state limiting the amount of small arms ammunition would result in serious economic harm to the tourist industry or hunters who travel to remote areas of the Alaska wilderness to hunt and fish, as well as those persons who live in remote areas who need small arms ammunition for their personal use. They do not support the proposed quantity limits on small arms ammunition. AACA suggests limiting it to 30 kg, a limit consistent with ORM-D packaging. AACA states, ''Many rural Alaskan residents rely on subsistence hunting as part of their lifestyle and to support their diet. They are regular consumers of small arms ammunition but Alaskan villages may typically have only one or two small retail stores with limited amounts of ammunition, and some villages do not have any regular options for purchase of small arms ammunition.'' AACA further states, ''Alaska's tourism industry also relies on air transportation of hunters to remote wilderness areas where there are no options for re-supply of ammunition. Recreational hunters often travel to remote locations for extended trips lasting from 7 to 21 days or more. Such hunters typically carry more than one kind of weapon and their combined ammunition for all weapon types can easily exceed the 5 kg limit.'' Alaska Airlines requests a blanket exemption for carrying these products and states, ''For Alaska to support the proposed rule as written, we must know we will be able to get a blanket exemption permitting our passengers at any of our United States locations to check in baggage the 50 pounds per person they have been doing safely for years (still employing the proven packaging requirements).'' ATA supports the 5 kg (11 pound) limit as proposed for small arms ammunition carried in checked baggage. ATA states ''this limit aligns the HMR with [the International Civil Aviation Organization Technical Instructions (TIs)] and places bounds on the previous ''personal use'' exception. Some carriers that serve hunting destinations may individually wish to seek higher limits through exemptions.''

Though we agree with ATA international harmonization is beneficial, we are compelled to account for the concerns raised by Alaska Airlines and AACA. Therefore, after reevaluating our proposal to limit small arms ammunition to 5 kg (11 pounds), we have decided not to adopt the proposed small arms ammunition limit. In addition, we would like to note that even though we are not adopting this provision, § 171.11 provides air carriers with the option of following the ICAO Technical Instructions which limits the amount of small arms ammunition to 5 kg per passenger.

Customs and Border Protection (CBP) suggests the proposed changes need further clarification as to what constitutes ''other packagings specifically designed to carry small amounts of ammunition.'' According to CBP, many Federal law enforcement officers are experiencing difficulties with inconsistent enforcement of these requirements. According to CBP:

> In the recent past TSA and airline policies on the transport of ''duty'' ammunition by these officers have been inconsistent and non-uniform. TSA Screeners and airlines at one airport would allow an officer to transport his duty ammunition in the firearms magazine or clip (removed from the weapon). Upon the officers return trip from a different airport the local policy would require the ammunition to be transported in the original ''off the shelf'' styrofoam and cardboard box. This causes problems when an officer is suddenly advised he can not fly unless he has original type packaging material. The proposed changes to new § 175.10(a)(8) do not clearly address this situation.

In addition, CBP suggests magazines and clips are designed to safely transport ammunition and to protect the primer end of the round from impacts may result in accidental discharge; according to CBP, store packaging of ammunition in thin cardboard boxes with a styrofoam insert provides no such protection of the primers. CBP states, ''If a magazine or clip is not deemed suitable for transport then specifics on packaging for small amounts of ammunition must be clearly outlined to facilitate a uniform national interpretation of the standards.''

The current requirement to securely package small arms ammunition for personal use in boxes or other packages specifically designed to carry ammunition provides a flexible packaging standard may be met using a variety of different packaging configurations. Similarly, the requirement for clips and magazines to be securely boxed is sufficiently descriptive to provide a variety of safe shipping options for shippers and carriers. Section 173.63 provides similar requirements for ''Cartridges, small arms'' and ''Cartridges, power devices'' shipped as ORM-D materials. Those provisions have an established history of safety and we are confident the adoption of proposed revisions to this paragraph will have similar results. In addition, we recognize the vast majority of persons transporting ammunition aboard an aircraft (i.e., sportsmen, law enforcement officers, military personnel, and competitive shooters) are knowledgeable about ammunition safety. Many will choose to transport and store their ammunition in hardened plastic cases intended to provide protection. Others will choose to transport their ammunition in the manufacture's original packaging, clips, or magazines—all of which can be safely

transported provided they completely and securely enclosure the ammunition (see letter of interpretation dated April 12, 2005 from Mr. John Gale to Mr. Marc Joyeuse). The intention of this change is not to develop a new packaging for ammunition; it is to ensure a limited amount is transported safely, in secure packages that provide adequate protection from the conditions normally incident to transportation aboard an aircraft.

2. COMAT

The NPRM clarified exceptions applicable to COMAT shipments apply only to an airline transporting ''its own'' replacement items. ATA asks PHMSA to delete the proposed change in new § 175.8(b). ATA notes carriers have had reciprocal arrangements where they obtain replacement items from each others' inventories in order to expedite movement of the item to the location where it is needed. ATA states ''it is irrelevant for safety purposes whether ownership of the replacement item has actually passed to the carrier that transports it for use as a replacement.''

We do not agree the exception for COMAT materials should be expanded to include the transportation of replacement parts by one airline for another airline. COMAT consists of spares and supplies intended for the repair or replacement of parts by the air carrier on which it is transported. Parts and supplies transported for other airlines must be transported in accordance with the HMR. To clarify the COMAT exception and the exception for installed equipment, in this final rule, we moved the exception from paragraph (b) of § 175.8 to paragraph (a) and have replaced the proposed text of paragraph (a) with the text currently in § 175.10(a)(1) and (a)(2).

ATA also asks PHMSA to adopt a similar special provision to the proposed Special Provision A59 on tire assemblies for aircraft batteries. ATA suggests this will further align the HMR with ICAO Special Provision A51 for batteries, just as the proposed Special Provision A59 for tire assemblies aligns with ICAO Special Provision A59 for tire assemblies. ATA states ''this change will make it clear that carriers may continue their current practices regarding COMAT shipment of aircraft batteries.'' ATA's comment is beyond the scope of this rulemaking. We will consider the addition of a special provision in a future rulemaking as suggested by ATA.

Regional Airline Association (RAA) requests clarification as to which exceptions apply to ''will not carry'' operators. For example, RAA suggests ''will not carry'' operators should be permitted to carry limited hazardous material COMAT if packaged in a manner acceptable to FAA and provided the operator's training and procedures are acceptable to FAA. RAA suggests air carriers incur a significant cost due to the current hazmat rules for ''will not carry'' operations. RAA also requests clarification of exceptions for passengers and crewmembers on ''will not carry'' airlines.

A ''will not carry'' operator is one who makes a business decision not to carry hazardous materials and indicates this decision in item 23 of its operations manual, in accordance with 14 CFR Subpart G—Manual Requirements (§ 121.135). The FAA does not prohibit ''will not carry operators'' from transporting those materials excepted in § 175.10(a). The HMR does not apply to those materials transported in accordance with § 175.10.

3. Batteries in Wheelchairs

ATA requests revisions to certain aspects of the provisions in part 175 applicable to non-spillable batteries. According to ATA, ''Most wheelchairs that carriers check as baggage or examine in recent years have non-spillable batteries; spillable batteries have become relatively rare. Wheelchair design has changed in ways that make it very difficult for carriers to comply with the existing visual inspection and battery disconnection requirements, which PHMSA proposes to carry over to the new section § 175.10(a)(15).'' Therefore, ATA requested PHMSA modify the proposed § 175.10(a)(15)(ii) and (iii) to recognize the current state of wheelchair technology.

ATA further states:

> Visual inspection and disconnection of a non-spillable battery should not be required if both of the following are satisfied: (1) the wheelchair has a disconnect mechanism, and carrier personnel use that mechanism to disconnect the power source, and (2) carrier personnel are able to verify, without disassembling the chair to view the battery itself, that the battery is non-spillable. If a carrier cannot satisfy either of these requirements, it is appropriate to require visual inspection to determine whether the battery is non-spillable. If the carrier performs a visual inspection and verifies that the battery is non-spillable, the carrier should be permitted to use a disconnect mechanism if the chair has one, or to disconnect the battery if the chair does not have a disconnect mechanism. ATA agrees that spillable batteries pose both an electrical and chemical safety risk, and the current visual inspection and disconnection requirements for them should be maintained.

ATA suggests these modifications will increase convenience for traveling disabled passengers by decreasing the time for carriers to return checked chairs to passengers. In addition, ATA suggests these modifications would decrease the damage to wheelchairs.

ATA's comments are beyond the scope of this rulemaking. However, we will consider the revisions suggested in a future rulemaking.

4. Carry-On vs. Checked Baggage

RAA requests further clarification of the terms ''carry-on baggage'' and ''checked baggage.'' According to RAA, ''there seems to be the implication that carry-on baggage is stowed in the passenger cabin and accessible to persons during flight and that checked baggage is stowed within a cargo hold; that is not the case for regional airplane operations.'' RAA asks PHMSA to clearly define these terms. As RAA states:

> Most ''carry-on'' bags on regional airplanes are stowed in the cargo hold; they are thoroughly checked by TSA as carry-on bags but are brought to the gate by the passengers and then loaded planeside into the cargo holds since there is no room for them in the passenger compartment. Placement of many carry-on bags that are taken to the gate for flights on very large airplanes (e.g. Boeing and Airbus) are also loaded planeside in the airplane's bulk cargo hold because they may not fit in an overhead compartment or there simply isn't enough room in the passenger compartment. We therefore see no distinction then between the two types of bags once they are placed onboard the airplane.

The HMR do not include definitions for ''checked'' or ''carry-on'' baggage. In the absence of a definition in the HMR, a term has the same meaning as in a dictionary or other source. Thus, when the HMR refer to ''checked baggage,'' the term means items of baggage offered to an airline for transportation in the hold of an aircraft inaccessible to the passenger during the flight for which the airline issues a claim check. When the HMR refer to ''carry-on baggage,'' the term means baggage for which no claim check is issued and can be carried into the passenger cabin of an airplane by a passenger or crewmember. These issues have not been addressed by this rulemaking; therefore, they are beyond its scope.

5. Self-heating Hair Curlers

The HMR include an exception for hair curlers containing hydrocarbon gas allowing no more than one hair curler per passenger or crew member, provided the safety cover is securely fitted over the heating element. This section is clarified by including the North American term ''curling iron'' to describe hair curlers and by citing ''butane'' as an example of a

hydrocarbon gas. ATA suggests the self-heating hair curlers referred to in § 175.10(a)(6) should include devices using liquid fuel as well as hydrocarbon gas fuel. We disagree. The current exception permits self-heating hair curlers to be transported in carry-on or checked baggage and includes curling irons using a hydrocarbon gas rather than electricity for power. This exception provides travelers with an option when the use of curlers heated by electricity is not an option. Allowing a flammable liquid burning heating source to be transported in carry-on or checked baggage poses an unnecessary flight safety risk.

6. Self-defense Spray

ATA asks PHMSA to delete the proposed § 175.10(a)(9) allowing the carriage of a self-defense spray in checked bags. According to ATA, this would harmonize the HMR with ICAO and IATA, which provide no exception for self-defense sprays in checked bags.

We recognize the current HMR exception for self-defense spray is not consistent with ICAO and IATA. However, harmonization is not always appropriate. The exception is used frequently by passengers and crewmembers to ensure their safety at destination. We do not agree permitting one container of self-defense spray in checked baggage poses a flight safety risk. Passengers traveling internationally should note that many foreign countries do not allow self-defense spray to be transported in checked or carry-on luggage.

7. Reformatting of Exceptions in § 175.10

Based on the comments received, we are adopting the amendments to divide the current exceptions in § 175.10 into three different sections: §§ 175.8, 175.9, and 175.10. Each section will cover a category of exceptions. Section 175.8 will cover operator equipment and items of replacement (including COMAT); § 175.9 will cover special aircraft operations (crop-dusting, parachuting, etc.); and § 175.10 will cover exceptions for passengers, crewmembers, and air operators. Separating and categorizing these exceptions will make the regulations easier to use and minimize confusion concerning the applicability of certain paragraphs.

New § 175.8 incorporates the exceptions for operators covering:

—Aviation fuel and oil
—Hazardous materials required for airworthiness
—Oxygen supplied by the operator
—Dry ice used by the operator in food service
—Alcohol, perfume, and lighters carried for use or sale by the operator
—Spares (COMAT) for installed equipment
—Tire assemblies.

New § 175.8 also clarifies the exceptions for aircraft spares (COMAT) are applicable only to an operator transporting its own equipment. The paragraph on COMAT deletes the references to tires as this exception already exists in § 173.307(a)(2). Also, current § 175.10(a)(7) dealing with the stowage of oxygen cylinders is moved to the new § 175.501 (See § 175.8(b)(1)).

We are revising § 173.307(a)(2) to reference § 175.8(b)(4) for tires transported by aircraft. Section 175.8(b)(4) deals with serviceable and undamaged tires versus unserviceable and damaged tires. It also requires tires and their valve assemblies to be protected from damage during air transport.

New § 175.9 incorporates exceptions for the following special aircraft operations:

—Aerial seeding, crop dusting, spraying, etc.
—Release devices, lights, and life-jackets for parachuting operations
—Smoke grenades, flares, pyrotechnics, affixed to aircraft during air shows
—Weather control, environmental protection, forest preservation, and avalanche control.

Also added to this new section are exceptions for operations dedicated to firefighting and prevention, air ambulances, and search and rescue operations. We have edited references to FAA approvals throughout this section to reflect either the FAA Flight Standards District Office or the FAA Principal Operations Inspector, whichever is more appropriate. Emergency services not performed under dedicated operations must comply with the HMR. The exceptions in § 175.9 are not for general transportation. In addition, applicable FAA operating specifications and Federal Aviation Requirements apply.

New § 175.10 contains exceptions for hazardous materials carried by passengers and crewmembers. These provisions have been edited for clarification. The most common edit was to put the name of the excepted article at the beginning of the sentence so it is easy to find.

The following table lists the provisions in the current § 175.10(a) and indicates the new location of the provision as adopted in this final rule.

Old paragraph 175.10(a)	New paragraph
(a)(1) aviation fuel and oil in tanks	175.8(a).
(a)(2) operator equipment, spares	175.8(a) and (b), 173.307(a)(2).
(a)(3) aerial seeding, crop dusting, etc.	175.9(a).
(a)(4) medicinal/toilet articles, 2.2 aerosols	175.10(a)(1)—self defense spray (a)(9).
(a)(5) small arms ammunition	175.10(a)(8).
(a)(7) oxygen furnished by operator	175.8(b).
(a)(8) implanted medical devices	175.10(a)(3).
(a)(9) parachuting devices	175.9(b).
(a)(10) safety matches/lighters	175.10(a)(2).
(a)(11) pyrotechnics affixed to aircraft	175.9(c).
(a)(12) hazmat dispensed, environmental	175.9(e).
(a)(13) dry ice	175.10(a)(10), 175.8(d).
(a)(14) transport incubator	175.10(a)(13).
(a)(15) alcohol, etc., carried by operator	175.8(b).
(a)(16) duty free perfume, etc.	175.10(a)(5).
(a)(17) alcoholic beverages	175.10(a)(4).
(a)(18) gas cylinders for mechanical limbs	175.10(a)(12).
(a)(19) wheelchair, nonspillable battery	175.10(a)(16).
(a)(20) wheelchair, spillable battery	175.10(a)(17).
(a)(21) hair curlers, butane	175.10(a)(6).
(a)(22) mercurial barometer/thermometer	175.10(a)(14).
(a)(23) heat-producing articles	175.10(a)(15).

Old paragraph 175.10(a)	New paragraph
(a)(25) lifejacket with gas cartridges	175.10(a)(11).
(a)(26) small mercury thermometer	175.10(a)(7).
(a)(27) lithium batteries and cells	175.10(a)(17).

Section 175.10(a)(1) is edited to change the maximum net quantity of inner packaging for medicinal/toilet articles from 473 ml to 500 ml for consistency with other even metric quantities. Self-defense spray has been reassigned to its own paragraph since it has little in common with medicinal and toilet articles.

Section 175.10(a)(2) has been revised to clarify that safety matches and lighters may be carried on one's person or in carry-on baggage. This change stems from a February 13, 2003 memorandum from Mr. Edward Mazzullo to Mr. William Wilkening addressing the current allowance for safety matches or a lighter to be carried on one's person. The memo clarifies the phrase ''one's person'' to include the passenger and his carry-on baggage.

Section 175.10(a)(6) is clarified by including the North American term ''curling iron'' to describe hair curlers and by citing ''butane'' as an example of a hydrocarbon gas.

Section 175.10(a)(8) is the new location for the small arms ammunition exception. This sub-paragraph is clarified to indicate ammunition clips and magazines must be securely boxed.

Section 175.10(a)(9) is the new location for the self-defense spray exception. It had previously been included in the quantity limits for medicinal and toilet articles. In its previous location the exception was difficult to locate; the move to this subparagraph makes it more visible.

Section 175.10(a)(10) is the new location for the dry ice exception. The exception, currently located in § 175.10(a)(13), includes two different net quantities allowed for dry ice—2 kg (4.4 pounds) and 2.3 kg (5 pounds)—depending on how it is carried. In addition, it is unclear whether the marking requirements are to be applied only to checked baggage or if they must be applied to both dry ice in cargo and checked baggage. The new subparagraph maintains the current quantities by allowing 2.3 kg (5 pounds) to be carried in checked baggage and 2 kg (4.4 pounds) to be carried in carry-on baggage. In addition, the new subparagraph clarifies the marking requirements are for checked baggage only. We had proposed to limit the amount of dry ice in checked and carry-on baggage to 2.0 kg (4.4 pounds); however, due to international changes we decided to maintain the current allowance. The exception for dry ice used in food service by the operator is moved to § 175.8(b)(2). The 2.3 kg (5 pounds) exception for dry ice transported as cargo is now incorporated in § 173.217. However, the maximum amount of dry ice allowed on board a flight is established by airworthiness requirements and operating specifications. FAA's Advisory Circular 91–76 dated September 30, 2004 outlines currently authorized limits.

Section 175.10(a)(11) is modified. Self-inflating life jackets may be carried with two cartridges of CO_2 (or other suitable Division 2.2 gas), as adopted in a final rule issued under docket HM–215E (68 FR 44991; July 31, 2003).

Section 175.10(a)(15) is clarified by replacing the term ''underwater torch'' with the North American term ''diving lamp''.

Section 175.10(a)(17) is replaced. Old § 175.10(a)(27) was adopted in an interim final rule published under Docket HM–224E (69 FR 75207; December 15, 2004). The new section provides an exception for lithium batteries in consumer electronic and medical devices (watches, calculators, cameras, cellular phones, lap-top computers, camcorders, and hearing aids, etc.) containing lithium cells or batteries, and spare lithium batteries and cells for these devices, when carried by passengers or crew members in carry-on or checked baggage for personal use. In addition, each installed or spare battery must conform to the following:

(1) The lithium content of the anode of each cell, when fully charged, is not more than 5 g; and

(2) The aggregate lithium content of the anodes of each battery, when fully charged, is not more than 25 g.

New § 175.10(b) includes the provisions adopted in HM–215E authorizing carriage of these excepted hazardous materials in passenger baggage unintentionally separated from the flight carrying the passenger (misrouted).

D. Section 175.20 Training

Section 175.20 requires aircraft operators to comply with all applicable requirements in Parts 106, 171, 172, and 175. In addition, hazmat employers must ensure all hazmat employees receive training in accordance with Part 172. Initial training under the HMR must be conducted within 90 days after employment begins or a change in the employee's job function. Recurrent training must be conducted at least every three years. Section 175.20 also refers to the FAA's hazardous materials training requirements in 14 CFR 121.401, Part 121 Subpart Z, 135.323, and Part 135 Subpart K (as amended in FR Vol. 70, No. 194; published October 7, 2005). The FAA requirements prescribe additional training for air carriers. Aircraft operators may substitute training provided in accordance with 14 CFR for training required by Part 172 to the extent that the training provided under 14 CFR satisfies requirements in Part 172.

A ''hazmat employee'' is defined in § 171.8 to mean a person ''who in the course of employment performs functions that directly affect hazardous materials transportation safety.'' This does not include every person who works around an area where, for example, hazardous materials are loaded, unloaded, handled, and stored. The employee's functional relationship to hazardous materials transportation safety, rather than incidental contact with hazardous materials in the workplace, is the primary factor in determining whether an individual is a ''hazmat employee.''

We received no comments regarding the proposed revision to this section; therefore, it is adopted as proposed in the NPRM. This final rule thus clarifies the HMR (including training) apply to any person who performs, attempts to perform, or is required to perform any function subject to this subchapter, including air carriers, indirect air carriers and freight forwarders and their flight and non-flight employees, agents, subsidiary and contract personnel that accept hazardous materials for air transportation.

E. Sections 175.25 and 175.26 Notification at Air Passenger and Cargo Facilities of Hazardous Materials Restrictions

The HMR currently require notices to be posted at air passenger facilities and cargo facilities. The notices contain specific language warning offerors of cargo and passengers of the requirements applicable to offering or carrying hazardous materials and the penalties for failure to comply with

those requirements. Section 175.25 requires aircraft operators to display notices warning passengers against carrying hazardous materials aboard aircraft in their checked or carry-on luggage and on their persons, and prescribes the information to be contained in each notice. Section 175.26 requires each person who engages in the acceptance of, or the transportation of, cargo by aircraft, to display notices in prominent locations at each facility where cargo is accepted. Display of notices are not required at unattended locations if there is a general notice prominently displayed advising customers shipments of hazardous materials at the location are prohibited. In addition, notices are not required to be displayed at a shipper's facility where packages of hazardous materials are accepted.

In a final rule published July 10, 1998 (63 FR 37454), we revised §§ 175.25 and 175.26 to reflect changes in the statutory citations and penalties, and to provide carriers greater flexibility. These notices are intended to inform customers of hazardous material identification procedures, the requirement to comply with the HMR, and the penalties for failure to comply with the HMR. Therefore, signs must be in prominent view of passengers and persons who accept or offer cargo. Sections 175.25 and 175.26 also list the minimum information required to be contained on the notice.

In some cases, cargo terminals are co-located with passenger terminals. To make it easier for the industry to comply with signage requirements, FAA and RSPA stated in a final rule published September 27, 1993 (58 FR 50496) display of separate passenger and cargo notices is not required at these passenger terminals.

We did not propose any amendments to the signage requirements in §§ 175.25 and 175.26. However, in an effort to further clarify these requirements and provide consistency with § 175.26, we did propose to revise the terminology in § 175.25 by changing ''each aircraft operator'' to ''each person.''

ATA supports PHMSA's efforts to educate shippers and the public about hazardous materials restrictions. For clarity, ATA suggests revising the opening sentence of § 175.25 to add the word ''air,'' as follows: ''Each person who engages in for-hire air transportation of passengers * * *'' We agree the suggested change provides further clarity and are adopting it in this final rule. We will also continue to work with the airlines and the airports to ensure the passengers and shippers of cargo aboard aircraft are aware of the dangers and the regulations for shipping hazardous materials.

F. Section 175.30 Accepting and Inspecting Shipments

Section 175.30 prohibits any person from carrying a hazardous material aboard an aircraft unless the package is inspected by the aircraft operator to ensure the integrity of the package has not been compromised. In response to a request from an airline to clarify its hazardous material acceptance responsibility, we issued a formal interpretation on the acceptance of hazardous materials on June 4, 1998 (63 FR 30411). We stated a carrier's acceptance and transportation of hazardous materials can involve several different situations. For example, a shipment may be ''declared'' by the shipper to contain hazardous materials by shipping documentation, marking, labeling, or other means. In such cases, the shipment must comply with all applicable HMR requirements, including the use of an authorized packaging. Conversely, an ''undeclared'' or ''hidden'' shipment is a shipment of hazardous materials not declared, intentionally or unintentionally, by the offeror to contain hazardous materials, and there is no attempt to comply with the HMR.

The responsibility to reject any shipment of hazardous materials not fully in full compliance with the HMR stems from the authority in 49 U.S.C. 5123 to assess a civil penalty against any person who ''knowingly violates'' any requirement in the HMR. Section 5123(a) provides a person ''acts knowingly'' when: (A) the person has actual knowledge of the facts giving rise to the violation; or (B) a reasonable person acting in the circumstances and exercising reasonable care would have that knowledge. A carrier knowingly violates the HMR when the carrier accepts or transports a hazardous material with actual or constructive knowledge that a package contains a hazardous material not properly packaged, marked, labeled, or described on a shipping paper as required by the HMR. To ignore readily apparent facts indicating either: (1) A shipment declared to contain a hazardous material is not properly packaged, marked, labeled, placarded, or described on a shipping paper; or (2) a shipment actually contains a hazardous material governed by the HMR despite the fact it may not be properly marked, labeled, placarded, or described on a shipping paper as containing a hazardous material, would not represent reasonable care.

Section 175.30(d) excepts materials classed as ORM–D from the inspection requirements. In the NPRM, we proposed to remove this exception. Materials reclassed as ORM–D should be subject to the inspection requirements of § 175.30(b) and (c) to ensure all packages containing hazardous materials are in proper condition for transportation aboard aircraft.

ATA; UPS; Association of Hazmat Shippers (AHS); and FedEx Express ask PHMSA to leave the exception provided in § 175.30(d) for consumer commodities and not remove it as proposed. ATA states removing the exception would result in inconsistency with the ICAO acceptance procedures in part 7;1.1.1(b) for similar shipments under Packing Instruction 910. ATA suggests PHMSA provided no safety justification for removing the exception, noting the break down and rebuilding a unit load device (ULD) containing ORM–D materials provides more opportunity to damage those packages. In addition, ATA suggests removal of the exception could lead to international consistency and competitive issues where foreign operators will offer their customers expedited processing while U.S. carriers will have to spend more time processing their packages individually. UPS and AHS also comment there is no incident history to justify removal of the exception and the increased handling could lead to greater costs for U.S. operators and increased damages during handling.

We disagree with the commenters and are adopting the proposal to remove the exception in § 175.30(d) for materials classed as ORM–D. Today's transportation environment also warrants inspection of materials reclassed as ORM–D to ensure the safety and security of the hazardous material shipment. Inspection is one of the only means available to ensure packages containing hazardous materials are in proper condition for transportation aboard aircraft. In addition, the change is consistent with international regulations. International regulations do not provide an ORM–D hazard class; therefore, international transportation of ORM–D materials is not permissible.

ATA, UPS, AHS, FedEx Express, and Express.net Airlines, LLC request, for international consistency, PHMSA remove the proposed requirement for an operator to inspect overpacks to determine ''that a statement indicating the inside packages comply with the prescribed specifications appears on the outside of the overpack when specification packagings are

prescribed.'' ATA commented under HM–215G, final rule, ICAO Technical Instructions no longer require such a statement on overpacks. ICAO Technical Instructions require overpacks be marked ''Overpack.'' The commenter stated the proposed inspection requirement under this rule would only create confusion in international shipments.

We agree, the text should be revised to be consistent with the final rule adopted under docket HM–215G (69 FR 76044; December 20, 2004). Therefore, the proposed text is altered to require the operator to ensure the word ''OVERPACK'' appears on the outside of the overpack when specification packages are required. Note, however, the use of a statement indicating the inside packages comply with prescribed specifications is also authorized until October 1, 2007.

Express.net Airlines requests a revision to § 175.30(e)(1)(iii) to explain whether the ''one package'' limitation refers to a one cargo aircraft only package contained with other shipments acceptable on passenger aircraft, or the ''one package'' refers to the limitation only one package (total) may be overpacked.

We believe proposed § 175.30(e)(1)(iii) clearly indicates the operator is excepted from taking steps to establish an overpack does not contain a package bearing the ''CARGO AIRCRAFT ONLY'' label if the overpack contains a single package. The exception refers to a package, not a single package labeled with the ''CARGO AIRCRAFT ONLY'' label. Therefore, we are not altering the proposed language.

G. Section 175.31 Reports of Discrepancies

Section 175.31 requires a person who discovers a discrepancy after acceptance of a package of hazardous materials (as defined by § 175.31(b)) to notify the nearest FAA Civil Aviation Security Field Office (CASFO) by telephone ''as soon as practicable,'' and provide certain information. This requirement permits early investigation and intervention to determine the cause for failure to either properly declare or prepare a hazardous materials shipment. A May 27, 1980, final rule under Docket HM–168 (45 FR 35329), adopted requirements in 49 CFR 175.31 for reporting discrepancies. In the preamble to the final rule, we stated:

> A shipment containing a hazardous material must be offered to the carrier in accordance with the regulations. An offering occurs when (1) the package is presented, (2) the shipping paper is presented, (3) the certification is executed, and (4) the transfer of the package and shipping paper is completed with no further exchange (written or verbal) between the shipper and aircraft operator, as usually evidenced by the departure of the shipper. At this point, it is clear the operator has accepted the shipment and the shipper has removed himself from a final opportunity to take corrective action that would preclude a violation of the HMR relative to transportation of hazardous materials aboard aircraft * * * the requirement which has been adopted [in this final rule] limits required reporting to shipment discrepancies which are discovered [subsequent to] acceptance of the shipment for transportation and limits 'reportable' discrepancies to those discrepancies which are not detectable as a result of proper examination by a person accepting shipment under the acceptance criteria of § 175.30. This notification requirement will facilitate the timely investigation by FAA personnel of shipment discrepancies involving situations where inside containers do not meet prescribed packaging or quantity limitation requirements and where packages or baggage are found to contain hazardous materials after having been offered and accepted as other than hazardous materials.

We proposed the addition of § 175.31(a)(6) to require the address of the shipper or person responsible for the discrepancy, if known, to be reported by the air carrier. Currently, § 175.31(b)(2) requires air operators to notify FAA, in part, when baggage subsequent to its offering and acceptance is found to contain undeclared hazardous materials. When security screeners suspect checked baggage may contain an unauthorized hazardous material, they bring the item to the attention of the air carrier so the air carrier can make a determination if the item is authorized to be in the baggage. If the air carrier determines the item constitutes a discrepancy, it must notify the FAA.

In comments to the NPRM, ALPA expresses its disappointment with no amnesty program being proposed despite broad support for such a program. ALPA states if an amnesty program is considered in the future it should apply to carriers when they discover an undeclared hazardous material and not to shippers. ALPA stated, ''There is a clear difference in culpability between a carrier that fails to discover an undeclared shipment during or after acceptance and the entity that prepares and offers that shipment.''

Though we did not propose an amnesty program under this rulemaking, as the primary agency delegated by the Secretary of Transportation to inspect and enforce the HMR in the air mode the FAA issued Advisory Circular 121–37, VOLUNTARY DISCLOSURE REPORTING PROGRAM—HAZARDOUS MATERIALS, on January 31, 2006. Holders of certificates under 14 CFR parts 119 and 125 and foreign air carriers issued operations specifications under 14 CFR part 129 who accept hazardous material for transport by air may voluntarily disclose to the FAA violations of certain hazardous materials regulations under this voluntary disclosure reporting program. This applies to violations of 49 CFR part 175, which cover certain reporting, training, acceptance, loading, unloading, handling, and stowage requirements. The voluntary disclosure reporting program applies only when the air carrier discovers an apparent violation and notifies the FAA HAZMAT Branch Manager before it learns of the apparent violation.

In its comments, CORAR states proposed notification of any discrepancy without clarification implies simple discrepancies resulting from unintentional human error, such as a missing or illegible TI value on a Class 7 package label, would be subject to reporting. CORAR states, ''[E]xpanding of resources required to make and respond to such a report is not warranted, particularly when the proposed rule also requires that the report include the address of the shipper or person responsible for the discrepancy, if known, by the air carrier.'' CORAR disagrees with the proposal to add the requirement for the address of the shipper or person responsible for the discrepancy, if known, to be supplied by the air carrier. CORAR states, ''It seems obvious that any investigation resulting from the report of a discrepancy will include a review of shipping papers, air bills and package labels that will provide the name of the consignor.'' CORAR further states, ''Any conclusion of fault or root cause should be the responsibility of the investigator and not the reporting party in order to avoid any wrongful allegation or potential shifting of accountability from another party with a vested interest in hazardous materials distribution.''

ATA suggests the volume of items now being removed from baggage has made it very burdensome for carriers to file discrepancy reports under the current § 175.31 procedures. ATA states it strongly opposes the proposal to require the passenger address, if known, suggesting there must be broader and more effective and efficient means of public outreach by FAA than requiring carriers to research and supply thousands of addresses on commonplace items, e.g., lighters, spray starch, oversized cans of hairspray, which FAA might or might not use in

an individual outreach letter. ATA states, ''[R]esearching addresses could add to the already considerable burden of filing a report.'' According to ATA, ''To require carriers to provide addresses, if known, on all reports would only be providing considerable information that the FAA is unlikely to use.'' Additionally, ATA states, ''In the carrier's view, individual outreach would be appropriate only in cases where a passenger was carrying hazardous materials that pose more significant safety risks, such as fireworks.''

We appreciate the points made by CORAR and ATA regarding the proposed requirement to include the address of the person responsible for the discrepancy in the discrepancy report. The address must only be included if it is known by the operator. In this final rule, we are adopting the proposed addition to § 175.31(a)(6) to require the address of the shipper or person responsible for the discrepancy, if known, by the air carrier. Currently, § 175.31(b)(2) requires air operators to notify FAA, in part, when baggage subsequent to its offering and acceptance, is found to contain undeclared hazardous materials. When security screeners suspect checked baggage may contain an unauthorized hazardous material, they bring the item to the attention of the air carrier accepting the baggage so the air carrier can make a determination if the item is authorized to be in the baggage. If the air carrier determines the item constitutes a discrepancy, it must notify the FAA. Since January, 2002, the FAA has received more than 44,000 discrepancy reports from air carriers in accordance with the § 175.31 reporting requirements. FAA and PHMSA have implemented numerous outreach initiatives intended to educate the public about the HMR. For example, PHMSA and FAA have: (a) Issued safety notices in the **Federal Register**; (b) deployed informational kiosks at major airports to alert passengers about the types of items not authorized to be transported in luggage; and (c) conducted over 1,000 outreach presentations each year. Despite these outreach efforts, the number of hazmat discrepancies reported by air carriers from checked baggage continue to grow. Therefore, PHMSA and FAA believe a more targeted outreach and education campaign is necessary. With the advent of universal checked baggage security screening, the FAA has developed an electronic system that prioritizes the discrepancy reports received based on risk. Although many discrepancy reports include address information, most do not. When the passenger's or shipper's address information is included with a discrepancy report involving higher risk hazardous materials such as fireworks, gasoline, propane, etc, a manually prepared Letter of Investigation is generally sent to the alleged violator in an attempt to gain more information. When the relevant address information is included with a discrepancy report involving lesser risk hazardous materials, an outreach notice is generated and mailed to the responsible passenger. Since April 2005, the FAA has mailed over 10,000 of these automated outreach notices to airline passengers. The address of the passenger or shipper thought to be responsible for a reported discrepancy is a crucial element in the successful resolution of these events.

As an interim measure, the FAA has experienced some success obtaining addresses as part of discrepancy reports by using subpoena authority contained in 49 U.S.C. Section 5121 and Part 13 of the Federal Aviation Regulations, 14 CFR part 13. This experience suggests many cases involve air carriers who know the relevant passenger's address information.

CORAR also requests further clarification of the phrase ''as soon as practicable'' for reporting and asks us to establish a timeframe for reporting such as immediate, 24 hour, 30 days, etc. For purposes of § 175.31, the phrase ''as soon as practicable'' means without undue delay. The person is not required to stop what they are doing and contact FAA immediately.

H. Sections 175.33 and 175.35 Shipping Papers and Notification of Pilot-in-Command

In the NPRM, we proposed to consolidate all the requirements related to shipping papers (§ 175.35), their retention for two years after the material is accepted by the initial carrier (§ 175.30(a)(2)), and the notification to pilot-in-command (NOPIC) into one section—§ 175.33, entitled ''Shipping papers and notification of pilot-in-command.''

ATA states § 175.33(b)(1)(i)(ii) requires extraneous and unnecessary information on a NOPIC. ATA asserts there is no safety-related reason for a NOPIC to include information about outer packaging. According to ATA, the requirement was added to shipping certification in the HM–215G final rule, but is not required in a NOPIC under ICAO Technical Instructions 7.4.1.1(e) and (f). ATA states, ''[T]hese elements have grown unintentionally as supplemental shipping paper requirements have been added to both U.S. and international regulations.'' ATA further states, ''Inclusion of details such as the EX number for airbags (but not for other explosives when the detail is marked on a package or shipping papers), State exemptions, or similar information cross-referenced to the shipping papers is irrelevant, and possibly confusing to the flight crew and/or emergency responders.'' ATA suggests these requirements should be discussed with DOT, FAA, National Transportation Safety Board and international authorities as appropriate. FedEx Express states it does not believe it is the intent of PHMSA to require a description of the outer package on the NOPIC which provides no safety benefit and could delay or keep emergency response personnel from reviewing pertinent information.

We did not propose any revision to the requirements related to shipping papers or the preparation and delivery of a NOPIC. Therefore, the comments summarized above are beyond the scope of this rulemaking.

ALPA proposes adding a revision to § 175.33(b) to state, ''allowing adequate time for review'', where the NOPIC is referenced. ALPA states operators or their agents wait until the very last minute before departure to provide flight crews with hazardous materials information contained in the NOPIC. According to ALPA, ''Just prior to departure is not the best time to provide this information to the flight crew. This does not allow the time required to properly examine the NOPIC, determine legality, and, where possible check the proper loading of these commodities.''

We agree with ALPA, operators should provide the NOPIC to the pilot-in-command early enough to allow adequate time for review. However, we believe the current wording, which requires the NOPIC to be provided to the pilot-in-command as early as practicable, is adequate. Therefore, we are not adding the statement ''allowing adequate time for review'' to § 175.33(b).

I. Section 175.40 Keeping and Replacement of Labels

This section requires aircraft operators to maintain an adequate supply of labels in case a label becomes lost or destroyed. Consistent with the removal of this section from the other modal parts of the HMR, we proposed the removal of this section. Commenters who addressed this section support its removal. Therefore, in this final rule, we are removing the requirement as we proposed.

J. Sections 175.75 and 175.85 Quantity Limitations and Cargo Location

Sections 175.75 and 175.85 prescribe limitations on the quantity of hazardous materials authorized to be carried aboard passenger-carrying or cargo-only aircraft, and the location of those materials, respectively. The quantity limitations for hazardous materials permitted aboard passenger-carrying aircraft are specified in § 175.75(a)(2). This section states no more than 25 kg of hazardous materials and, in addition, 75 kg net weight of Division 2.2 (non-flammable compressed gas) may be carried aboard a passenger-carrying or cargo-only aircraft:

(1) In an accessible cargo compartment;

(2) In any freight container within an accessible cargo compartment; or

(3) In any accessible cargo compartment of a cargo-only aircraft if the hazardous materials are loaded as to be inaccessible unless in a freight container.

Class 9 materials and consumer commodities are excepted from the quantity limitations of § 175.75(a)(2). Section 175.85(b) requires hazardous materials packages acceptable for cargo-aircraft only to be loaded in a manner allowing access to the package by crew members.

Section 175.85(a) prohibits the carriage of a hazardous material in the passenger cabin or on the flight deck of any aircraft, and specifies conditions under which hazardous materials may be carried on main-deck cargo compartments. Section 175.85(c)(1)(i) through (v) provides exceptions for cargo-only operations from the quantity limitations of § 175.75(a)(2), and accessibility requirements of § 175.85(b) for those hazardous materials listed. Section 175.85(c)(2) provides exceptions, when other means of transportation are impracticable, to the accessibility requirement of § 175.85(b) and the quantity limitation requirements of § 175.75(a)(2) for hazardous materials acceptable by both cargo-only and passenger-carrying aircraft. These exceptions require packages to be carried in accordance with procedures approved in writing by the nearest FAA Civil Aviation Security Field Office (CASFO). Columns 9A and 9B of the § 172.101 Hazardous Materials Table (HMT) specify limitations on individual package quantities, or list packages forbidden from transportation by aircraft. Section 173.27 specifies inner receptacle limits for combination packages.

Sections 175.85(c)(3)(i) through (iii) provide exceptions for small, single-pilot cargo-only aircraft from the accessibility requirements of § 175.85(b) and the quantity limits of § 175.75. These exceptions apply when small aircraft are the only means of transporting hazardous materials to a particular destination. This applies to airports and locations incapable of supporting larger aircraft operations, where the only means of access is by smaller aircraft. The provisions of § 175.85(c)(3) do not require approval by the FAA.

To make these requirements easier to understand, in the NPRM we proposed to merge the requirements of §§ 175.75 and 175.85 into one section and remove any unnecessary paragraphs. We also proposed to eliminate the 25 kg cargo compartment restriction from cargo aircraft. We did not propose to increase or eliminate the limitation on the amount of hazardous materials authorized to be transported in an inaccessible cargo compartment of a passenger aircraft. We also proposed to eliminate from the exception in § 175.85(c)(3) the requirement indicating shipment by other means of transportation is impractical. We did not propose to eliminate or modify the exception from the 25 kilogram limitation currently afforded Class 9 and ORM-D materials. In an effort to enhance compliance and further clarify the cargo loading requirements, we proposed to add a chart at the end of § 175.75 to summarize these requirements.

ALPA does not support the proposal to eliminate the 25 kg cargo compartment restriction provision from all cargo operations or cargo-only aircraft. ALPA asserts the greatest danger to an aircraft in-flight from hazardous materials is fire, and, according to ALPA, the quantity limitations and accessibility provisions reduce the potential danger. ALPA states, ''Increasing the quantities of hazardous materials that are inaccessible in cargo compartments without an active fire suppression system is not sound management of the safety risk.'' In addition, ALPA did not support the proposal to eliminate DOT E–11110 and incorporating it into the HMR. This exemption authorizes the transportation of certain hazardous materials in an inaccessible location aboard a cargo aircraft in quantities exceeding those authorized by § 175.75(a)(2). According to ALPA, the proposal is not warranted, and believed this change could significantly increase the potential for fire aboard an aircraft by avoiding these accessibility requirements.

UPS supports the proposal to eliminate the 25 kg quantity limits, stating it recognizes safety margins represented by quantity limits and packaging requirements are applicable to shipments eligible for transportation on passenger aircraft. According to UPS, ''We note that outside the U.S., the lack of any requirements similar to the current § 175.75 gives PHMSA a sound safety justification for its proposed amendment to this section.'' UPS also states, ''We foresee a simplification of training for employees, as a result of this proposal. This benefit is important, because we believe- and have believed for many years-that the effort expended on training loaders to comply with the current requirements of § 175.75 can result in confusion among some employees.'' UPS also supports incorporation of the provisions of DOT-E 11110 into the HMR which authorizes the transportation of certain hazardous materials in an inaccessible location aboard a cargo aircraft in quantities exceeding those authorized by §175.75(a)(2) as a reduction in an administrative burden for both PHMSA and UPS.''

ATA supports the proposal to merge §§ 175.75 and 175.85, and eliminate the 25/75 kg cargo compartment restriction for cargo aircraft and the requirement for shipping by other means be impractical. However, ATA states PHMSA should also remove the current quantity restriction applicable to passenger aircraft and align the HMR with the ICAO Technical Instructions. In addition, the Association of HazMat Shippers (AHS) indicates it strongly supports removal of the cargo compartment restrictions for materials authorized aboard passenger aircraft when carried on cargo aircraft.

RAA suggests the proposal in § 175.75(a) is not appropriate for small cabin airplanes. For that reason, RAA asks PHMSA to remove the proposal from this section.

To make these requirements easier to understand, we are adopting our proposal to merge the requirements of (§ 175.75 and 175.85 into one section and remove any unnecessary paragraphs. However, based on comments received and further consultation, we are not adopting our proposal to eliminate the 25 kg cargo compartment restriction from cargo aircraft. We agree, such a restriction is necessary for the safety of cargo aircraft transporting hazardous materials and inaccessible passenger aircraft quantities of hazardous materials on cargo-only aircraft operations would unnecessarily compound the situation faced by the crew in an unrelated fire.

Therefore, we are not adopting any proposal to modify the limitation on the amount of hazardous materials authorized to be transported in an inaccessible cargo compartment of a cargo aircraft.

In this final rule, we are revising the provisions to clarify the quantity limitations to promote compliance and understanding. Thus, we are adopting our proposal to add a chart at the end of § 175.75 to summarize these requirements and clarify the language. We are also adopting our proposal to eliminate from the exception in § 175.85(c)(3) the requirement for shipment by other means of transportation be impractical.

The following table lists the existing paragraphs in (§ 175.75 and 175.85 and indicates where we are moving them:

Old section and paragraph	New section and paragraph
175.75(a)(1)	Removed as unnecessary.
175.75(a)(2)	175.75(b).
175.75(a)(3)	175.700.
175.75(b)	175.75(b) and (c).
175.85(a)	175.75(a).
175.85(b)	175.75(d).
175.85(c)(1)	175.75(d)(1).
175.85(c)(2)	175.75(d)(2).
175.85(c)(3)	175.75(d)(3).
175.85(d)	Removed as unnecessary.
175.85(e)	175.75(a).
175.85(f)	175.310.
175.85(g)	Removed as unnecessary.
175.85(h)	175.501.
175.85(i)	175.501.
175.85(j)	175.75(a).

K. Section 175.78 Stowage Compatibility of Cargo

For stowage of hazardous materials on an aircraft, in a cargo facility, or in any other area at an airport designated for the stowage of hazardous materials, packages containing hazardous materials with the potential to react dangerously with one another may not be placed next to each other in a position allowing a dangerous interaction in the event of leakage. At a minimum, segregation instructions prescribed in the segregation table in § 175.78 must be followed to maintain acceptable segregation between packages containing hazardous materials with different hazards.

ALPA states PHMSA should address the loading compatibility and associated potential hazards of Class 8 corrosives in this rulemaking. ALPA states these materials present a unique risk to be addressed. According to ALPA, ''Strong acids and strong bases should be segregated onboard aircraft. While we recognize this issue would require substantial regulatory changes regarding hazard classification and hazard communication, we feel the relative danger of an interaction not the difficulty of regulatory change, should be the determining factor in whether these substances are segregated.''

We did not propose to make this change in the NPRM. Therefore, the request is beyond the scope of this regulatory action. We may consider segregation of strong acids and strong bases onboard aircraft in a future rulemaking.

L. Sections 175.79, 175.81, and 175.88 Inspection, Orientation and Securing of Packages of Hazardous Materials

In the NPRM, we proposed to merge the requirements of §§ 175.79 (Orientation of cargo); 175.81 (Securing of packages containing hazardous materials); and 175.88 (Inspection of unit load devices) into a single section—§ 175.88, entitled ''Inspection, orientation, and securing of packages of hazardous materials.''

We received no comments on this proposal. Therefore, we are adopting our proposal to merge the requirements of (§ 175.79 (Orientation of cargo); 175.81 (Securing of packages containing hazardous materials); and 175.88 (Inspection of unit load devices) into § 175.88.

M. Section 175.90 Damaged Shipments

We proposed no amendments for this section.

N. Section 175.305 Self Propelled Vehicles

We proposed to move the requirements of this section to § 173.220. We received no comments on this proposal. Therefore, we are adopting our proposal to move the requirements of this section to § 173.220.

O. Sections 175.310 and 175.320 Transportation of Flammable Liquid Fuel Within Alaska or Into Other Remote Locations and Cargo Aircraft, Only Means of Transportation

Section 175.310, ''Transportation of flammable liquid fuel within Alaska or into other remote locations,'' provides exceptions for the shipment of flammable liquid fuels in the State of Alaska and other remote locations. Section 175.320 provides an exception from the quantity limitations in §§ 175.75 and 172.101, when certain conditions are met. Section 175.320 authorizes the transportation of certain hazardous materials by cargo-only aircraft in inaccessible cargo locations when other means of transportation are impracticable. The term impracticable means transportation is not physically possible or cannot be performed by routine and frequent means of other transportation, due to extenuating circumstances.

In the NPRM, we proposed to merge the passenger-carrying aircraft operations of current § 175.310 and the cargo aircraft operations of the current § 175.320 into one section. However, similar loading and operating requirements were broken out of each and combined into paragraphs that will apply to both types of operations. This resulted in some additional operator requirements for the passenger aircraft operations (the 14 CFR references to operating manuals and FAA approval) which do not exist in current § 175.310. However, these requirements have applied to the operator via 14 CFR even though they were not specifically mentioned in the HMR.

We proposed to remove the authorization to transport Class 1 (explosive) materials in accordance with § 175.320. In our view, because of security concerns and requirements, the carriage of explosives outside the normal requirements of the HMR should be handled by special permit. Alaska Air Carriers Association states the provision for Class 1 materials supports a variety of interests in Alaska including construction and mining, communities staging fireworks displays, and individuals in remote cabin parcels. AACA opposes the proposal eliminating the provision for Class 1 explosives because it did not consider the transportation of Class 1 materials within the United States where air is the only means of transportation; AACA suggests the provisions of § 175.320 be re-instated. In addition, Northern Air Cargo also expressed concern regarding the proposal to eliminate the provisions for Class 1 materials, stating, ''Limiting shipments of explosives and requiring that an exemption for transport be requested with a minimum of 120 days lead time is unreasonable.'' It further states mining, construction and military operations and projects in inaccessible Alaskan locations by road or water make it difficult to give the kind of advance notice required to obtain an exemption. Northern Air Cargo asks PHMSA to continue the current Class 1 provisions.

In this final rule, we are adopting our proposal to remove the authorization to transport Class 1 (explosive) materials in accordance with § 175.320 due to security reasons and in accordance with a February 10, 2004 final rule published under Docket HM–232C (69 FR 6195). In

our view, because of security concerns and requirements, the carriage of explosives outside of the normal requirements of the HMR should be handled by special permit. The removal of the authorization to transport Class 1 materials also allows the deletion of some of the operator restrictions dealing with advance notices, airports, loading areas, etc. under the provisions.

We are also adopting our proposal to remove the reference to flammable liquids mentioned by name and proposing a new combined section limited to fuels, similar to existing § 175.310. Oil, toluene, and methyl alcohol would no longer be covered under this section unless they are being used as a fuel. We are adopting our proposal to remove the chart since there is only one commodity being covered (combustible liquids are mentioned in the paragraph covering bulk tanks). Fuels will be limited to those in Packing Group II or III (Packing Group I fuels, which have a boiling point of 35C/95F or higher, would be allowed only in aircraft tanks designed to hold such liquids).

P. Section 175.501 Special Requirements for Oxidizers and Compressed Oxygen

In the NPRM, we proposed to move the stowage requirements applicable to the transportation of compressed oxygen currently found in §§ 175.10(a)(7), and 175.85(h) and (i), to a new section—§ 175.501, entitled ''Special requirements for oxidizers and compressed oxygen.''

We received no comments on this proposal. Therefore, we are adopting our proposal to move the stowage requirements applicable to the transportation of compressed oxygen currently found in §§ 175.10(a)(7), and 175.85(h) and (i), to § 175.501.

Q. Section 175.630 Special requirements for Division 6.1 and Division 6.2 Material

No amendments were proposed or adopted in this section. However, two comments were received regarding this section from RAA and ATA. Both are beyond the scope of this rulemaking.

R. Sections 175.700, 175.701, 175.702, 175.703, 175.704, 175.705 and 175.706 Transportation of Radioactive Materials Aboard Aircraft

Sections 175.700, 175.701, 175.702, 175.703, 175.704, 175.705, and 175.706 of part 175 contain numerous provisions related to the transportation of radioactive materials aboard aircraft. In the NPRM, we attempted to rewrite many of these provisions to facilitate understanding of these requirements. We proposed to move requirements related to the carriage of radioactive materials with undeveloped film from these sections. However, except in the case of shipments with undeveloped film and separation distances for cargo aircraft, it was not our intent to make any substantive revisions to §§ 175.700, 175.701, 175.702, 175.703, 175.704, or 175.705. With regard to the separation distances from undeveloped film, we proposed to remove them from the HMR. It is our belief such requirements should not be part of Federal regulations, but instead should be addressed by an agreement between the shipper and the airline. We also proposed to adopt the separation distances in the ICAO Technical Instructions for shipments aboard cargo aircraft of greater than 50 TI. The following table identifies the existing requirements and where we proposed to move them:

Existing requirement	Proposed new section
175.75(a)(3)	175.700(b).
175.700(a)	175.700(b) and (c).
175.700(b)	175.705(b) and (c).
175.700(c)	175.700(a).
175.700(d)	175.700(a).
175.701(a)	Removed, unnecessary.
175.701(b)(1)	175.701(c).
175.701(b)(2)	175.701(a).
175.701(b)(3)	175.701(b).
175.701(c)	175.701(d).
175.702(a)	175.702(b).
175.702(b) and (b)(1)	175.702(a).
175.702(b)(2)(i)	175.702(a).
175.702(b)(2)(ii)	175.702(b).
175.702(b)(2)(iii)	175.702(c).
175.702(b)(2)(iv)	175.700(b)(2).
175.703(a)	175.706.
175.703(b)	175.703(a).
175.703(c)	175.703(b).
175.703(d)	175.700(a).
175.703(e)	Removed, already covered by § 173.441.
175.704	Only editorial changes made to this section.
175.705(a)	175.705(a).
175.705(b)	175.705(a).
175.706	175.703(a).

The Federal hazardous materials transportation law addresses ionizing radiation material transportation. (49 U.S.C. 5114.) It states the material may be transported on a passenger-carrying aircraft in air commerce only if the material is intended for use in, or incident to, research or medical diagnosis or treatment; and does not present an unreasonable hazard to health and safety when being prepared for, and during transportation. Section 175.700 prohibits, in addition to other requirements, a person from carrying in a passenger-carrying aircraft any package required to be labeled in accordance with § 172.403 with a RADIOACTIVE YELLOW II or III label, unless certain provisions are met. In addition, § 175.700(c) states (except for limited quantities) no person shall carry any class 7 material aboard a passenger-carrying aircraft unless the material is intended for use in research, medical diagnosis, or treatment.

It appears some persons have misused the definition of ''research'' to avoid the restrictions in § 175.700. We do not consider research to include the application of existing technology to industrial endeavors. For example, the use of radioactive material (e.g., iridium-192) to detect cracks in oil field pipelines is not research, but the application of existing scientific knowledge. Therefore, we are adopting our proposal to revise the definition of research in § 171.8 to clearly indicate it does not include the application of existing technology to industrial endeavors.

FedEx Express strongly supports the harmonization of the radioactive material separation distance requirements in §§ 175.701 and 702 with the IAEA Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised) no. TS–R–1 and the ICAO Technical Instruction for the Safe Transport of Dangerous Goods by Air. These are practical changes, which will facilitate the air transport of radioactive material and enhance radiation safety.

FedEx Express and CORAR support the adoption of the ICAO separation distances for radioactive material in quantities exceeding a total transport index of 50. They also support the allowance in § 175.700(b)(2) for a combined transport index of up to 200. According to CORAR, ''This adoption by regulations of conditional relief currently provided by carrier exemption is a good example of practical rulemaking that facilitates compliance and streamlines the efforts to transport time-sensitive materials without compromising public or occupational health and safety.''

CORAR suggests changes to current limits on fissile material packages, as follows:

(1) In § 175.700(c)(1), there is no reason to limit a single fissile material package to a CSI no greater than 3.0. The fissile material package will have both a TSI and a CSI. The TSI will still be limited to not greater than 3.0, thereby limiting the external radiation exposure and will satisfy the congressional mandate on which that regulation is based.

(2) In § 175.700(c)(2), there is no reason to limit a single fissile material package to 10 CSI. Note that existing regulations limit a single fissile material package to no more than 50 CSI.

(3) In § 175.702(b), the reference to transport index should be eliminated. The separation distance for external radiation levels are governed by the table in § 175.700(c)(2).

We agree with CORAR's suggestions and have corrected the language in this final rule accordingly.

CORAR supports the proposed removal of separation distance requirements for undeveloped film in § 175.703 and agrees arrangements to prevent exposure should be made between shippers and carries and not mandated by regulation. However, Eastman Kodak does not support the proposal to remove the paragraph affecting the segregation of undeveloped film and radioactive sources aboard aircraft. Eastman Kodak suggests this provision provides a redundant and necessary assurance that undeveloped film products will not be compromised due to the proximity of certain radioactive sources during transportation. Kodak states, ''Film customers, ranging from members of the general public to the diagnostic, radiography and defense industries, rely on being able to capture unique and/or transient images. In many cases, these images cannot be recaptured, thus the consequences for the medical and defense sectors can be very significant.'' Kodak further states, ''Failure to have such requirements in place could result in damaged product and lead to increased cost and loss of critical information such as medical x-ray and aerial reconnaissance images.'' For this reason, Kodak recommends the elimination of the proposal to remove this provision and retention of the segregation provision.

We agree with Eastman Kodak's viewpoints regarding the need to protect the film, especially in medical and defense related reconnaissance images. Also, we understand our regulations establish the only requirements for the protective separation distances between film and radioactive materials. As stated above, it is our belief separation distances for film should be established and maintained through an agreement between the airline and the shipper and should not be part of HMR. However, we have decided to continue regulating the separation distances between radioactive materials and film by not adopting the proposal to remove the separation provision in § 175.703(a), and we are moving these requirements to new § 175.706.

Express.Net Airlines, LCC asks PHMSA to add a definition of ''routinely'' or delete the section altogether (175.705(d)). According to Express.Net, ''If the intent of this section is to address the dangers of cumulative exposure to radioactive material, carriers, using multiple aircraft and rotating crewmember assignments will minimize exposure compared to an air carrier with limited equipment or personnel.'' Because we did not propose to remove this term or section from the HMR, this comment is beyond the scope of this rulemaking.

III. Miscellaneous Proposals to the HMR

A. Quantity Limits in Column (9) of the Hazardous Materials Table (HMT)

Columns 9A and 9B of the § 172.101 Hazardous Materials Table (HMT) specify limitations on individual package quantities, or list packages forbidden from transportation by aircraft. Section 173.27 specifies inner receptacle limits for combination packages. In an effort to enhance compliance, we proposed to amend the heading for column 9 of the HMT to reference §§ 173.27 and 175.75 as a reminder to comply with both section requirements for quantity limitations for transportation by aircraft.

No comments were received on this proposal. We are adopting our proposal to amend the heading for column 9 of the HMT to reference §§ 173.27 and 175.75 as a reminder to comply with both section requirements for quantity limitations for transportation by aircraft.

B. Tire Assemblies

In the NPRM, we proposed to move the exception for tire assemblies from § 175.8 to Special Provisions A59 in § 172.102(c)(2).

RAA does not agree moving this exception to Part 172 will facilitate awareness and consistency within air transportation and suggests it should remain in § 175.8. RAA asserts operators will have interpretation problems with inspectors over what constitutes ''protection from damage during transport'' for a tire and suggests a number of other problems concerning securement of tires in a cargo hold and the transportation of damaged tires. RAA recommends a requirement for a damaged tire to be deflated so its pressure is below 25 psig, which is the HMR definition for a Division 2.2 compressed gas.

In accordance with RAA's comments, we are not adopting the proposed addition of tire assembly requirements to Special Provision A59. We agree placing the requirement in § 175.8 will facilitate awareness and consistency in air transportation. Therefore, we are adding the requirements for tire assemblies proposed in Special Provision A59 to § 175.8(b)(4) and adding a reference to § 173.307(a)(2). We also agree the exception for tire assemblies should be tied to the definition of Division 2.2 gas. We have revised § 175.8(b)(4) accordingly.

C. Small Quantities, Limited Quantities and Consumer Commodities

The HMR contain exceptions for small quantities, limited quantities, and consumer commodities. These exceptions allow materials to be transported at reduced levels of regulation. Small quantities of hazardous materials are excepted from all other requirements of the HMR, provided certain criteria in § 173.4 are met. Limited quantity exceptions in the HMR are based on the class of the hazardous material, and include more stringent requirements for air transportation. Materials meeting the limited quantity exception and also meet the definition of a consumer commodity as provided by § 171.8, may be renamed ''Consumer Commodity'' and reclassed as ORM–D. Consumer commodities are excepted from specification packaging, labeling, placarding and quantity limitations applicable to air transportation. As currently written, these exceptions allow small quantities and consumer commodities to be transported by aircraft even though they may contain hazardous materials otherwise forbidden aboard aircraft. These exceptions are inconsistent with the ICAO Technical Instructions, which require before a hazardous material may be transported as an excepted quantity (i.e., small quantity or a limited quantity), it must be suitable for transportation aboard passenger aircraft. The ICAO Technical Instructions also prohibit the transportation of small quantities in checked and carry-on luggage.

In the NPRM, we proposed to eliminate a provision of the HMR allowing the transportation of hazardous materials forbidden aboard aircraft to be transported aboard aircraft as either ORM–D material or small quantity material. In addition, we proposed for transportation by aircraft only, to adopt the ICAO Technical Instructions provision that requires shipments of limited quantities to comply with the passenger aircraft net quantity limitation in the HMT. We proposed to amend all the limited quantity sections of the HMR (e.g., § 173.150) by stating,

for transportation by aircraft, only hazardous materials authorized aboard passenger-carrying aircraft may be transported as a limited quantity. In addition, we proposed to amend § 173.4 (small quantities) to limit those small quantity materials authorized for transportation aboard aircraft to those materials allowed aboard passenger-carrying aircraft. We also proposed, consistent with the ICAO Technical Instructions, to forbid the transportation of small quantities of hazardous materials in carry-on or checked baggage.

Anderson Products, Inc. opposes the proposed amendment to § 173.4 limiting the hazardous materials eligible for transport by aircraft under the small quantity except to those authorized aboard passenger aircraft. Anderson Products manufacturers and ships medical sterilization devices worldwide and suggests this revision as proposed would impose an undue economic burden on its shipments. Anderson Products also notes the ICAO Technical Instructions currently provide an exception under special provision A131 to permit ethylene oxide sterilization devices to be transported under the excepted quantities provision in 1;2.4 of the ICAO Technical Instructions in quantities containing less than 30 mL per inner packaging.

Anderson Products suggests ''in the interest of full consistency with the ICAO Technical Instructions—which was apparently PHMSA's objective in proposing the new § 173.4(a)(9)(i)—if the proposed new paragraph is to be adopted a similar exception should be provided in the HMR for ethylene oxide sterilization devices.'' In addition, Anderson Products ''questions the need to include the proposed new 173.4(a)(9)(i) at all.'' According to Anderson Products, ''[T]here is no evidence to support that the more restrictive provisions adopted by ICAO which are now being proposed for incorporation into the HMR in the interests of ''consistency'' with ICAO, were necessary to ensure safety in air transport.''

We agree with Anderson Products comments regarding the need for consistency with ICAO in this case and the need for an exception for ethylene oxide sterilization devices. Therefore, we are adopting the exception in Special Provision A131 of the ICAO Technical Instructions for ethylene oxide sterilization devices under a new Special Provision (A59) in 172.102. In addition, we are adopting Special Provision A75 of the ICAO Technical Instructions to provide a similar exception for hydrogen peroxide sterilization devices under a new Special Provision (A60) in 172.101.

In this final rule, we are adopting our proposal to eliminate a provision of the HMR which inadvertently allows the transportation of hazardous materials forbidden aboard aircraft to be transported aboard aircraft as either a consumer commodity or small quantity material. In addition, we are adopting our proposal to amend all of the limited quantity sections of the HMR (e.g., § 173.150) by stating, for transportation by aircraft, only hazardous materials authorized aboard passenger-carrying aircraft may be transported as a limited quantity. We are adopting our proposal to amend § 173.4 (small quantities) to limit those small quantity materials authorized to be transported aboard aircraft to those allowed aboard passenger-carrying aircraft. However, we have decided to add new paragraph (a)(11) to § 173.4 in place of redesignating paragraphs (a)(9) and (a)(10) as (a)(10) and (a)(11), respectively, and then adding new paragraph (a)(9). Adding one new paragraph to § 173.4 is far less disruptive and much easier to follow than redesignating two paragraphs and adding a new paragraph. Except as noted above, we are also adopting our proposal, consistent with the ICAO Technical Instructions, to forbid the transportation of small quantities of hazardous materials in carry-on or checked baggage.

The ICAO Technical Instructions provision to require shipments of limited quantities to comply with the passenger aircraft net quantity limitation in the HMT we proposed, was in error. The provision in ICAO is not consistent with the HMT net quantity limitation for passenger aircraft. Therefore, we are unable to adopt the provision as proposed and will not be making a change to the quantity limits for limited quantities.

D. Section 173.7

In the NPRM, we proposed to move the exception currently in § 175.5(a)(2), related to an aircraft under the exclusive direction and control of a government, to § 173.7. We also proposed to modify the exception by making it an exception from the ''subchapter'' and not solely an exception from part 175.

No comments were received on these proposals. Therefore, we are adopting these amendments as proposed.

E. Section 173.217

In the NPRM, in the proposed revision of § 175.10, we proposed to maintain the exception for dry ice in checked and carry-on baggage and move the exception for dry ice in airline food service to § 175.8(b)(2). We proposed to relocate the exception for 2.3 kg (5 pounds) of dry ice as cargo/freight to § 173.217.

We received no comments on this issue. Therefore, we are adopting the changes as proposed in the NPRM. In the revision of § 175.10, we will maintain the exception for dry ice in checked and carry-on baggage and § 175.8 will contain the exception for dry ice used in airline food service. To retain the 2.3 kg (5.0 pounds) exception for the shipment of dry ice as cargo/freight, we are adopting our proposal to move this exception from § 175.10 to a new paragraph (f) in § 173.217.

F. Section 173.220

The proposed revision would move the requirements for self-propelled vehicles from § 175.305 to paragraph (b)(4)(iii) of this section. No comments were received on the proposed revision. Therefore, in this final rule we are moving the requirements for self-propelled vehicles from § 175.305 to paragraph (b)(4)(iii).

IV. Rulemaking Analysis and Notices

A. Statutory/Legal Authority for This Rulemaking

This final rule is published under the authority of the Federal hazardous materials transportation law (Federal hazmat law; 49 U.S.C. 5101 et seq.) and 49 U.S.C. 44701. Section 5103(b) of the Federal hazmat law authorizes the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce. Title 49 United States Code § 44701 authorizes the Administrator of the Federal Aviation Administration to promote safe flight of civil aircraft in air commerce by prescribing regulations and minimum standards for practices, methods, and procedures the Administrator finds necessary for safety in air commerce and national security. Under 49 U.S.C. 40113, the Secretary of Transportation has the same authority to regulate the transportation of hazardous material by air, in carrying out § 44701, that he has under 49 U.S.C. 5103.

B. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is not considered a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, was not reviewed by the Office of Management and Budget. This final rule is not considered a significant rule under the Regulatory Policies and

Procedures of the Department of Transportation [44 FR 11034].

The changes resulting from this final rule have minimal cost implications that will be more than offset by the benefits. For example, the costs of altering the small quantity and limited quantity requirements so they allow only those materials authorized for transportation on passenger-carrying aircraft and the costs of including a new requirement in § 175.3 for ORM–D materials to be inspected before they are placed aboard an aircraft are offset by eliminating the unacceptable risk to passengers and crew that existed prior to this final rule. A change with a minimal impact on the cost to carriers is the requirement to include the address of the shipper, if known, in the discrepancy report required by § 175.31. However, the cost resulting from this new discrepancy report requirement will be offset by the benefits provided elsewhere in this final rule.

In addition to the costs and benefits provided above, this final rule will provide several other benefits to help offset the costs. The majority of this rulemaking address clarification of requirements applicable to the transport of hazardous materials aboard aircraft. By focusing on clarity this final rule will enable shippers, carriers, and enforcement officers to gain a better understanding of the regulations. The changes we have adopted in this final rule will clarify the aircraft requirements, which, will promote compliance and enforcement in order to increase safety. Other increases in transportation safety are realized by harmonizing the domestic and international regulations where applicable. Harmonization will also provide for continued access to foreign markets by domestic shippers of hazardous materials. In addition, carriers will realize a cost savings from the elimination of the requirement for carriers to maintain replacement labels to be used in the event that a hazmat label becomes lost or damaged.

The majority of amendments in this final rule result in cost savings and several ease the regulatory compliance burden for shippers engaged in domestic and international commerce, including trans-border shipments within North America.

C. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (''Federalism''). This final rule preempts State, local, and Indian tribe requirements but does not propose any regulation that has substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazardous materials transportation law, 49 U.S.C. 5101–5128, contains an express preemption provision (49 U.S.C. 5125(b)) that preempts State, local, and Indian tribe requirements on the following subjects:

(1) The designation, description, and classification of hazardous materials;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;

(3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; or

(5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This final rule addresses subject areas 2, 3, and 4 above. This final rule preempts any state, local, or Indian tribe requirements concerning these subjects unless the non-Federal requirements are ''substantively the same'' as the Federal requirements. This final rule is necessary to update and clarify the hazardous materials transportation requirements by aircraft which will enhance future compliance.

Federal hazardous materials transportation law provides at § 5125(b)(2), if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. PHMSA proposes the effective date of Federal preemption will be 90 days from publication of a final rule in this matter in the **Federal Register**.

D. Executive Order 13175

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13175 (''Consultation and Coordination with Indian Tribal Governments''). Because this final rule does not have tribal implications and does not impose direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply.

E. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies

The Regulatory Flexibility Act (5 U.S.C. 601–611) requires each agency to analyze regulations and assess their impact on small businesses and other small entities to determine whether the rule is expected to have a significant impact on a substantial number of small entities. The provisions of this final rule apply to aircraft operators. The Small Business Administration criterion specifies an aircraft operator/carrier is ''small'' if it has 1,500 or fewer employees. For this rule, small entities are part 121 and part 135 aircraft operators/carriers approved to carry hazardous materials, with 1,500 or fewer employees. We identified 729 aircraft operators/carriers meeting this standard. Provided we are only reorganizing the current requirements for the transportation of hazardous materials aboard aircraft and adopting provisions promoting cost savings, we anticipate a cost savings for the airline industry as a result of this final rule. While maintaining safety, this final rule relaxes certain requirements applicable to aircraft operators and would clarify existing provisions. Therefore, PHMSA certifies this final rule does not have a significant economic impact on a substantial number of small entities.

This final rule has been developed in accordance with Executive Order 13272 (''Proper Consideration of Small Entities in Agency Rulemaking'') and DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts of draft rules on small entities are properly considered.

F. Unfunded Mandates Reform Act of 1995

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $120.7 million or more, in the aggregate, to any of the following: State, local, or Native American tribal governments, or the private sector.

G. Paperwork Reduction Act

This final rule does not impose any new information collection burden. Section 1320.8(d), Title 5, Code of Federal Regulations requires PHMSA to provide interested members of the public and affected agencies an opportunity to comment on information collection and recordkeeping requests.

We currently have approved information collections under OMB No. 2137–0034, ''Hazardous Materials Shipping Papers and Emergency Response Information'' which expires May 31, 2008, and OMB No. 2137–0557, ''Approvals for Hazardous Materials'' which expires March 31, 2008. This rule identifies only editorial revisions proposed as section designation changes, to these approved information collections. PHMSA submitted the revised information collection requests for editorial revisions as proposed changes in section designations to OMB for approval based on the requirements as proposed in this rule. OMB has approved both information collection requests submitted in association with this rulemaking and has extended these information collections until 2008.

PHMSA specifically requested comments on the information collection and recordkeeping burdens associated with developing, implementing, and maintaining these requirements for approval under this rule. No comments were received regarding approved editorial changes to this information collection.

Requests for a copy of the information collection should be directed to Deborah Boothe or T. Glenn Foster, Office of Hazardous Materials Standards (PHH–10), Pipeline and Hazardous Materials Safety Administration, Room 8430, 400 Seventh Street, SW., Washington, DC 20590–0001, Telephone (202) 366–8553.

Under the Paperwork Reduction Act of 1995, no person is required to respond to or comply with an information collection requirement unless it displays a valid OMB control number.

H. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document may be used to cross-reference this action with the Unified Agenda. The RIN number for this final rule is—RIN 2137–AD18.

I. Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321–4347), requires Federal agencies to consider the consequences of major Federal actions and prepare a detailed statement on actions significantly affecting the quality of the human environment. There are no significant environmental impacts associated with this final rule. PHMSA proposed and is adopting in this final rule changes to the requirements in the HMR on the transportation of hazardous materials by aircraft. The purpose of this rulemaking is to modify or clarify requirements to promote safer transportation practices; promote compliance and enforcement; eliminate unnecessary regulatory requirements; convert certain exemptions into regulations of general applicability; finalize outstanding petitions for rulemaking; facilitate international commerce; and make these requirements easier to understand.

J. Privacy Act

Anyone is able to search the electronic form all comments received into any of our dockets by the name of the individual submitting the comments (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78) or you may visit *http://dms.dot.gov.*

List of Subjects

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

49 CFR Part 172

Education, Hazardous materials transportation, Hazardous waste, Labeling, Markings, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 173

Hazardous materials transportation, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

49 CFR Part 175

Air carriers, Hazardous materials transportation, Radioactive materials, Reporting and recordkeeping requirements.

Issued in Washington, DC on March 14, 2006 under the authority delegated in 49 CFR part 1.

Brigham A. McCown,

Acting Administrator.

[FR Doc. 06–2596 Filed 3–21–06; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 171, 172, 173, and 175

[Docket No. PHMSA–2004–16895 (HM–226A)]

RIN 2137–AD93

Hazardous Materials: Infectious Substances; Harmonization With the United Nations Recommendations

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: PHMSA is revising the transportation requirements for infectious substances, including regulated medical waste, to adopt new classification criteria, new exceptions, and packaging and hazard communication requirements consistent with revised international standards and to clarify existing requirements to promote compliance. These revisions will ensure an acceptable level of safety for the transportation of infectious substances and facilitate domestic and international transportation.

EFFECTIVE DATE: This final rule is effective October 1, 2006.

Voluntary Compliance Date: Voluntary compliance is authorized 30 days following publication of this final rule.

FOR FURTHER INFORMATION CONTACT: Eileen Edmonson, Office of Hazardous Materials Standards, (202) 366–8553, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation or by e-mail to *Eileen.Edmonson@dot.gov* or *infocntr@dot.gov*.

SUPPLEMENTARY INFORMATION:

I. Background

On May 19, 2005, the Pipeline and Hazardous Materials Safety Administration (PHMSA), published a notice of proposed rulemaking (NPRM) to revise the requirements in the Hazardous Materials Regulations (HMR; 49 CFR parts 171–180) applicable to the transportation of infectious substances affecting humans and animals, including regulated medical waste (67 FR 53118). In the NPRM, PHMSA proposed to harmonize the HMR requirements applicable to the transportation of Division 6.2 materials with requirements in the 13th and 14th Editions of the UN Recommendations for the Transport of Dangerous Goods (UN Recommendations), the 2005–2006 Edition of the International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions), and the International Maritime Organization Dangerous Goods Code. Specifically, we proposed to:

- Revise the classification system for Division 6.2 materials from the current four-tiered risk group system to a two-tiered system—Category A and Category B.
- Replace the proper shipping name ''Diagnostic specimens'' with ''Biological substance, Category B.''
- Adopt packaging requirements for Category A and Category B infectious substances consistent with those in the UN Recommendations and ICAO Technical Instructions.
- For Category B infectious substances, require the name, address, and telephone number of a person knowledgeable about the Category B infectious substance to be provided on a written document, such as an air waybill, accompanying the shipment or on the package.
- Permit a sample of an unknown infectious substance shipped for analysis or diagnosis to be transported as a Category B infectious substance, unless there is a strong suspicion that the unknown infectious substance meets the criteria for Category A, in which case the unknown material must be transported as a Category A infectious substance.
- Require sharps packagings to be securely closed and leakproof in all orientations.
- Require the development and implementation of transportation security plans for select agents and toxins affecting animals, as identified in 9 CFR part 121.

The comment period for the proposed rule closed on July 18, 2005. PHMSA received 13 comments, all of which support revising the requirements to harmonize them with current international standards. The following companies, organizations, and individuals submitted comments: Gary Gilliam (Gilliam; RSPA–2004–16889–2); Alcoa, Inc. (Alcoa; RSPA–2004–16889–3); Steven V. Schulte (Schulte; RSPA–2004–16889–4); The Daniels Corporation (Daniels; RSPA–2004–16889–6); Shoolah Escott (Escott; RSPA–2004–16889–7); National Solid Waste Management Association/ Medical Waste Institute (NSWAM/MWI; RSPA–2004–16889–8); American Blood Centers (ABC; RSPA–2004–16889–9); Air Transport Association of America, Inc. (ATA; RSPA–2004–16889–10); Stericycle, Inc; (Stericycle; RSPA–2004–16889–11); JBM Associates, Inc. (JBM; RSPA–2004–16889–12); American Clinical Laboratory Association (ACLA; RSPA–2004–16889–13); Air Line Pilots Association (ALPA; RSPA–2004–16889–14); and TEN–E Packaging Services, Inc. (TEN–E; RSPA–2004–16889–15 and –16).

II. Discussion of Comments

A. Classification of Division 6.2 Materials

The HMR currently incorporate a risk-group-based classification system for infectious substances. The regulations require Division 6.2 materials to be assigned to risk groups based on the degree to which they cause injury through disease, with Risk Group 1 presenting the lowest risk and Risk Group 4 presenting the highest risk. Assignment of an infectious substance to a risk group is based on the known medical history of the source patient or animal, endemic local conditions, symptoms of the source patient or animal, or professional judgment concerning individual circumstances of the source patient or animal. Division 6.2 materials assigned to Risk Group 1 are excepted from the HMR and the UN Recommendations.

The current requirements for assigning pathogens to risk groups are based on the risks posed in the laboratory environment, not in the transportation environment. Pathogens in transport do not pose the same level of risk that they do in the laboratory. Laboratory workers perform extensive manipulations of infectious substances that place the workers at higher risk of infection because of accidental exposures caused by splashes or spills. Moreover, certain laboratory processes—such as vortexing, mixing, or centrifuging—can generate aerosols or airborne particles that can place workers who perform such operations at increased risk. These conditions do not exist in transport.

The risk group classification system resulted in transportation problems, including shipper confusion in assigning risk groups, and shipment delays or refusal to transport associated with carriers' and transport workers' perceptions about the risks associated with the transportation of infectious substances. A delay in transportation or a refusal to transport a specimen may have life-threatening implications for a patient or a population. Moreover, transportation problems can delay research necessary to develop treatments or slow the spread of disease, and can interfere with the

implementation of appropriate measures to address new disease outbreaks. Because of these transportation problems, the UN Committee of Experts on the Transport of Dangerous Goods worked with scientists and public health professionals at the World Health Organization (WHO), the U.S. Centers for Disease Control and Prevention (CDC), and other agencies to develop a classification scheme for infectious substances that would be more appropriate for the transportation environment.

In December 2002, the United Nations adopted a number of revisions for the 13th Revised Edition of the UN Recommendations related to the transportation of infectious substances, primarily involving how infectious substances are classed and packaged. In July 2004, the UN Committee of Experts on Dangerous Goods recommended further revisions to these standards; these revisions were adopted for the 14th Revised Edition of the UN Recommendations in December 2004. At the same time, the ICAO Dangerous Goods panel adopted many of the amendments for the 14th Revised Edition of the UN Recommendations in the 2005–2006 Edition of the ICAO Technical Instructions through an addendum to the ICAO Technical Instructions.

The amendments in the 13th and 14th Editions of the UN Recommendations are the result of long and thoughtful consultations among regulators, scientists, medical professionals, and the transport community. The result is a set of standards for the transportation of infectious substances that are easier to use and impose a high level of safety appropriate to the degree of risk and conditions of transport. PHMSA's May 9, 2005 NPRM proposed to harmonize HMR requirements for the transportation of infectious substances with the international standards.

Commenters generally support PHMSA's efforts to more closely align the requirements for transporting infectious substances with current international requirements by adopting a two-tiered classification system. The majority of commenters state they believe the requirements will ease the movement of these materials in transit and reduce confusion, thereby increasing safety. Therefore, in this final rule, we are adopting the classification system as proposed in the NPRM.

The requirements adopted in this final rule establish a two-tiered classification system for Division 6.2 materials—Category A and Category B. Category A infectious substances pose a higher degree of risk than Category B infectious substances. Category A material is an infectious substance transported in a form capable of causing permanent disability or life-threatening or fatal disease to otherwise healthy humans or animals when exposure to it occurs. An exposure occurs when an infectious substance is released outside of its protective packaging, resulting in physical contact with humans or animals. Category A infectious substances are assigned to existing identification numbers UN 2814 (for substances causing disease in humans or in both humans and animals) or UN 2900 (for substances causing disease in animals only), and are to be packaged and described according to applicable HMR provisions for these materials. The following are examples of Category A infectious substances, as designated by scientists at WHO and the U.S. Department of Health and Human Services (HHS). Please note this list is not all inclusive and is provided only as guidance. Note also that many of the entries on the list include the modifier ''(cultures only).'' For these materials, only cultures of the listed infectious substances are considered Category A infectious substances. Other forms of these infectious substances may be transported as Category B infectious substances.

Category A infectious substances UN No. and proper shipping name	Micro-organism
UN 2814—Infectious substances affecting humans and animals	Bacillus anthracis (cultures only). Brucella abortus (cultures only). Brucella melitensis (cultures only). Brucella suis (cultures only). Burkholderia mallei—Pseudomonas mallei—Glanders (cultures only). Burkholderia pseudomallei—Pseudomonas pseudomallei (cultures only). Chlamydia psittaci—avian strains (cultures only). Clostridium botulinum (cultures only). Coccidioides immitis (cultures only). Coxiella burnetti (cultures only). Crimean-Congo hemorrhagic fever virus. Dengue virus (cultures only). Eastern equine encephalitis virus (cultures only). Escherichia coli, verotoxigenic (cultures only). Ebola virus. Flexal virus. Francisella tularensis (cultures only). Guanarito virus. Hantaan virus. Hantaviruses causing hemorrhagic fever with renal syndrome. Hendra virus. Herpes B virus (cultures only). Human immunodeficiency virus (cultures only). Highly pathogenic avian influenza virus (cultures only). Japanese Encephalitis virus (cultures only). Junin virus. Kyasanur forest disease virus. Lassa virus. Machupo virus. Marburg virus. Monkeypox virus. Mycobacterium tuberculosis (cultures only). Nipah virus.

Category A infectious substances UN No. and proper shipping name	Micro-organism
UN 2900—Infectious substances affecting animals only	Omsk hemorrhagic fever virus. Poliovirus (cultures only). Rabies and other lyssaviruses (cultures only). Rickettsia prowazekii (cultures only). Rickettsia rickettsia (cultures only). Rift Valley fever virus (cultures only). Russian spring-summer encephalitis virus (cultures only). Sabia virus. Shigella dysenteriae type I (cultures only). Tick-borne encephalitis virus (cultures only). Variola virus. Venezuelan equine encephalitis virus (cultures only). Vesicular stomatitis virus (cultures only). West Nile virus (cultures only). Yellow fever virus (cultures only). Yersinia pestis (cultures only). African swine fever virus (cultures only). Avian paramyxovirus Type 1—Velogenic Newcastle disease virus (cultures only). Classical swine fever virus (cultures only). Foot and mouth disease virus (cultures only). Lumpy skin disease virus (cultures only). Mycoplasma mycoides—Contagious bovine pleuropneumonia (cultures only). Peste des petits ruminants virus (cultures only). Rinderpest virus (cultures only). Sheep-pox virus (cultures only). Goatpox virus (cultures only). Swine vesicular disease virus (cultures only).

A Category B infectious substance is one that does not meet the criteria for inclusion in Category A. A Category B infectious substance does not cause permanent disability or life-threatening or fatal disease to humans or animals when exposure to it occurs. Under the provisions of the 13th Edition of the UN Recommendations, adopted in December 2002, a Category B infectious substance is described as ''Diagnostic Specimen'' or ''Clinical Specimen'' and assigned to UN 3373.

Currently, the HMR define a ''diagnostic specimen'' to mean any human or animal material being transported for diagnostic or investigative purposes. In accordance with current § 173.199, diagnostic specimens are excepted from most HMR requirements except for minimal packaging and hazard communication. Historically, the HMR have permitted a proper shipping name, such as ''Diagnostic specimen,'' listed in the § 172.101 Table to be used to describe a non-hazardous material on a shipping paper and package marking provided the UN or NA identification number is not included. See §§ 172.202(e) and 172.303(b)(3). However, adoption of the proper shipping name ''Diagnostic specimen'' in both the international standards and the HMR resulted in some confusion on the part of both shippers and carriers who are accustomed to using these terms to refer to human or animal samples that have a low probability of containing an infectious pathogen. In addition, using these terms to describe shipments of Category B infectious substances is not completely accurate—there are many shipments of Category B infectious substances that may not be diagnostic specimens as that term is usually defined.

The UN Sub-Committee of Experts on the Transport of Dangerous Goods discussed the proper shipping name issue during its July 2004 meeting and agreed to adopt a different proper shipping name for Category B infectious substances—''Biological substance, Category B.'' The UN adopted this proper shipping name for the 14th Revised Edition of the UN Recommendations, which is effective January 1, 2007; ICAO adopted the new proper shipping name through an addendum to the 2005–2006 ICAO Technical Instructions. The addendum permits use of the new proper shipping name as an alternative to ''Diagnostic Specimen'' or ''Clinical Specimen'' until January 1, 2007, at which time the new name must be used. Consistent with the revised international standards, the May 9, 2005 NPRM proposed to adopt the proper shipping name ''Biological substance, Category B'' in the HMR. No commenters opposed this proposal, and it is adopted in this final rule. Thus, a Category B infectious substance must be described as ''Biological substance, Category B'' and assigned to UN 3373.

B. Packaging Requirements for Category B Infectious Substances

Currently, the HMR require Risk Group 2 and 3 infectious substances (most of which will be classed as Category B infectious substances under this final rule) to be transported in triple packagings certified to comply with the performance standards in § 178.609, including a drop test from a height of 9 m (30 ft), a water spray test, and a puncture test. In the NPRM, we proposed to permit Category B infectious substances to be transported in non-specification triple packagings capable of passing a drop test only at a height of 1.2 meters (3.9 feet). Commenters support this proposal. We are adopting this requirement in this final rule.

The NPRM proposed to require these packagings to be capable of passing the drop test set forth in § 178.603, which prescribes tests for all non-bulk packaging designs. As suggested by one commenter (TEN–E), in this final rule, we are replacing the reference to § 178.603 with § 178.609. The drop test established in § 178.609 applies specifically to infectious substance packagings; this testing configuration more appropriately addresses the integrity issues for infectious substance packages.

The NPRM proposed to require the outer packaging of the triple pack authorized for the transportation of Category B infectious substances to be rigid; the proposal is consistent with requirements adopted for air shipments of Category B infectious substances in the ICAO Technical Instructions. One commenter (ACLA) suggests this requirement is unnecessary because a packaging capable of passing a 1.2 meter drop test has sufficiently demonstrated it can withstand normal transportation conditions. The commenter states this requirement would impose unnecessary costs on clinical laboratories with no safety benefit. We disagree. As indicated above, Category B packagings must be capable of passing a drop test, but need not be capable of passing a puncture or other performance test. A requirement for a rigid outer packaging will help to ensure that the entire package can withstand punctures and other conditions that may be encountered during transportation and particularly at package sorting facilities. In addition, a rigid outer packaging will help to ensure that package markings are intact and legible in the event the package is damaged during transportation. We therefore find the safety benefits of a requirement for a rigid outer packaging outweigh the minimal additional cost of such packaging. However, we do agree a rigid packaging conforming to HMR requirements may be placed inside an envelope or other non-rigid overpack conforming with § 173.25 of the HMR.

The commenter (ACLA) also asks us to provide guidance concerning what constitutes a rigid outer packaging. An outer packaging is defined under § 171.8 as the outermost enclosure of a composite or combination packaging together with any absorbent materials, cushioning, and any other components necessary to contain and protect inner receptacles or inner packagings. A rigid packaging is sufficiently stiff and unyielding so as to retain its original shape and dimensions at all times and under all conditions of transportation.

Current HMR requirements require infectious substances packed with materials intended to stabilize or prevent degradation of the sample to be transported in accordance with provisions applicable to the hazard class of the stabilizing material used. In the NPRM, we proposed to relax this requirement to except Packing Group II or III materials used to stabilize or prevent degradation of infectious materials up to a limit of 30 mL (1 ounce) or 30 g (1 ounce) in each inner packaging from HMR requirements. A commenter (ACLA) suggests we permit each inner packaging to contain up to 250 mL (25% of the total permitted volume of liquid material per primary receptacle) of Packing Group II or III material. We disagree. For shipments by air, the maximum quantity contained in each inner receptacle of the package may not exceed 1 L; the maximum quantity contained in each outer package may not exceed 4 L. Thus, the revision proposed by ACLA would permit as much as 1 L of a stabilizing material or preservative to be transported in a single package with no additional packaging or hazard communication requirements. Particularly for shipments transported by aircraft, we believe quantities of Packing Group II or III materials in excess of 30 mL pose a sufficient hazard as to require at least minimal regulation. The limit of 30 mL per inner receptacle is consistent with the small quantity exception in § 173.4, which excepts small quantities (up to 30 mL or 30 g per inner receptacle) of certain hazard materials from all HMR requirements provided minimal packaging requirements are met. Moreover, the triple packaging design for infectious substances is similar to the minimal packaging authorized for small quantities of hazardous materials under § 173.4. Thus, we are adopting the limitation on the quantity of preservative permitted in each inner packaging as proposed in the NPRM. If a shipper elects to use a larger quantity of preservative, the shipment must conform to HMR requirements applicable to the specific material and quantity being shipped.

Two commenters (Escott, JBM) asked us to clarify that the requirement for a pressure differential test for packagings used to transport Category B infectious substances applies only to transportation by aircraft. As discussed in the NPRM, this provision in existing § 173.199(b)(4) is not changed in this final rule. Either the primary or secondary receptacle for a liquid Category B infectious substance must be capable of withstanding, without leakage, an internal pressure producing a pressure differential of 95 kPa (0.95 bar, 14 psi) when offered or intended for transport by aircraft.

C. Emergency Contact Information for Category B Infectious Substances

Currently, the HMR require packages of Risk Group 2 and 3 infectious substances (most of which will be classed as Category B infectious substances under this final rule) to be accompanied by shipping papers that include a telephone number that is monitored at all times the hazardous material is in transportation; the telephone number must be the number of a person who is knowledgeable about the hazardous material being shipped and has comprehensive emergency response and incident mitigation information for that material (see § 172.604). Because Category B infectious substances are excepted from shipping paper requirements, in the May 9, 2005 NPRM, we proposed to require the proper shipping name; UN number; and name, address, and telephone number of a person knowledgeable about the material to be provided on a written document, such as an air waybill, accompanying a Category B infectious substance shipment or on the package itself. Two commenters object to the requirement for a contact telephone number. One commenter (Escott) suggests the expense of monitoring the number while the shipment is in transit would impose a significant cost burden on clinical laboratories, medical facilities, and other infectious substance shippers. A second commenter (JBM) suggests the address on the packaging should be sufficient for contacting the responsible party in the event of an incident.

This provision to add the emergency contact name and telephone number for Category B infectious substances is intended to harmonize hazard communication for these materials with requirements in the 2005–2006 ICAO Technical Instructions. The number need not be monitored at all times the hazardous material is in transportation, as would be required under § 172.604 of the HMR. However, we do intend it to be monitored during a company's administrative office hours. Thus, we expect the burden of complying with this requirement will be minimal. Consistent with revisions adopted by ICAO in November 2005, in this final rule, we are not requiring an address as part of the contact information. Emergency contact information shown on a shipping document or on the package must include the name and telephone number of a person knowledgeable about the shipment.

We disagree that the number should not be required. Having access to a telephone number will enable transport workers and emergency responders to contact a person knowledgeable about the shipment within a reasonable period of time and, thus, will facilitate the retrieval of information concerning the material and its potential hazards.

D. Exceptions for Certain Shipments

The HMR currently except certain shipments of infectious substances from all regulatory requirements when the shipments are transported by a private

or contract carrier in a motor vehicle used exclusively to transport these materials. In the NPRM, we propose to expand this exception to Category B infectious substances transported for research, diagnosis, investigational activities, or disease treatment or prevention. One commenter (Escott) recommends the HMR include minimal packaging requirements for such shipments, such as non-specification triple packagings with absorbent material, and minimal marking and labeling requirements. Escott states, ''When I worked in a hospital, I received specimens that were transported by a courier and were leaking * * *'' We do not agree Category B shipments transported by private or contract carriers should be regulated under the HMR. We do not have reports of safety problems involving courier shipments of infectious materials under the exception currently provided in the HMR. Courier shipments typically are packaged in primary receptacles, sealed in leak-proof plastic bags, and placed in a leak proof outer container that includes cushioning material. Further, couriers are familiar with the materials they transport, and are trained in the application of the Occupational Safety and Health Administration (OSHA) standards for handling potentially infectious materials. Requiring additional packaging and hazard communication requirements would add to the cost of shipping such materials without improving safety. Therefore, we are adopting the exception as proposed in the NPRM.

In the NPRM, we indicated the HMR do not apply to a human or animal sample transported for routine testing when the testing is not related to the diagnosis of an infectious disease and when there is no reason to suspect the sample is infectious. Routine screening tests include: (1) Blood or urine tests a doctor may order as part of a routine medical examination to monitor cholesterol levels, blood glucose levels, hormone levels, or prostate specific antibodies (PSA); (2) blood or urine tests to monitor liver or kidney functions in individuals who are not known to have an infectious disease and who are following a particular drug therapy regime; (3) blood or urine tests conducted for insurance or employment purposes and/or intended to determine the presence of alcohol or drugs; (4) DNA tests; and (5) pregnancy tests. Routine tests for diagnoses for other than the presence of pathogens include biopsies to detect cancer and antibody titre testing. This exception proposed in the NPRM is consistent with exceptions adopted in the UN Recommendations for substances unlikely to cause disease in humans or animals, and substances for which there is a low probability an infectious pathogen is present.

Three of the four commenters addressing this issue (ACLA, Alcoa, ABC), support the exception from the HMR for transporting specimens from apparently healthy individuals and animals for routine diagnostic testing for other than an infectious disease. These commenters state many years of experience shows the probability of such samples being infectious is low, and, therefore, their transportation is unlikely to compromise safety. These commenters also state permitting the transportation of samples from apparently healthy individuals for routine testing will facilitate the processing of such samples and initiation of appropriate patient treatment. One commenter (JBM) opposes the exception. The commenter suggests samples from apparently healthy individuals may contain pathogens and recommends minimal packaging standards to guard against the release of the sample during transportation.

We agree with the commenters who suggest that samples from apparently healthy individuals and animals being transported for routine testing unrelated to the diagnosis of an infectious disease are not likely to be infectious and, thus, pose a minimal safety risk. Patient specimens excepted from regulation under the HMR are those from persons believed by professional judgment to have a minimal likelihood of harboring an infectious agent. These specimens typically are blood, serum, urine, stool, biopsies, hair, finger or toe nails, semen, or other similar samples from a body. According to health care specialists and scientists at WHO and the U.S. Department of Health and Human Services, the risk of infection during transportation from samples taken from apparently healthy patients and animals and transported for routine testing is extremely small. Therefore, we are adopting the exception from HMR requirements for such samples as proposed in the NPRM.

Shippers and carriers should be aware ICAO has adopted minimal standards applicable to the transportation of human or animal specimens for which there is minimal likelihood that pathogens are present. Such specimens are not subject to ICAO requirements when they are transported in a packaging designed to prevent any leakage and marked with the words ''Exempt human specimen'' or ''Exempt animal specimen,'' as applicable. This is a mandatory ICAO requirement; however, we are not adopting it in this final rule. Such samples are not transported in a quantity or form that poses an unreasonable risk to health and safety. Thus, for purposes of the HMR, such specimens are not considered hazardous materials and are not subject to any requirements. Note that use of the ''Exempt human specimen'' or ''Exempt animal specimen'' marks by a shipper indicates that the relevant packages do not contain a hazardous material. Therefore, packages bearing these marks may be accepted by air carriers making a business decision to not accept hazardous materials. Conversely, packages bearing the Proper Shipping Names ''Infectious Substance, affecting humans'' or ''Infectious Substance, affecting animals'' or ''Biological Substance, Category B'' must be rejected by air carriers making a business decision to not accept hazardous materials.

E. Notification to Pilot-in-Command

Generally, a notification to the pilot-in-command (NOPIC) is required for shipments of hazardous materials subject to the HMR or ICAO Technical Instructions. The NOPIC includes the proper shipping name, hazard class, and identification number of the hazardous material; the total number of packages; the net quantity or gross weight for each package; the location of the packages on the aircraft; any additional information required by the regulations; and confirmation that no damaged or leaking packages have been loaded on the aircraft (see § 175.33 of the HMR and Chapter 4, paragraph 4.1.1, and Chapter 7, paragraph 7.4.1 of the ICAO Technical Instructions). The NOPIC provides the pilot-in-command with information to make critical decisions and take necessary safety precautions in the event of an emergency on board the aircraft.

In the preamble to the NPRM, we indicated, consistent with the ICAO Technical Instructions, we were not proposing to require a NOPIC for air shipments of Category B infectious substances. We noted that ICAO narrowly decided against such a requirement for the 2005–2006 Edition of the ICAO Technical Instruction. ICAO members opposed to the requirement cited the low risk in transportation associated with Category B infectious substances, new ICAO requirements for hazard communication for Category B shipments, and the possibility that increased regulation would result in fewer carriers electing to transport Category B shipments. Members supporting the NOPIC

requirement cited the benefit of information being available to the pilot and emergency responders in the event of an emergency or an accident. We invited commenters to address this issue, and whether or not the HMR should require a NOPIC for shipments of Category B infectious substances.

Of the three commenters who address this issue, two (ATA, ACLA) support the ICAO decision to not require a NOPIC for Category B infectious substances. These commenters note Category B infectious substances pose a reduced risk in transportation because they do not cause permanent disability or life-threatening or fatal disease to humans or animals. These commenters agree the hazard communication requirements in the ICAO Technical Instruction provide sufficient information for package handlers and emergency responders to make necessary safety decisions in the event of an emergency. The commenters also state the NOPIC provision would increase administrative and training costs and could result in the refusal by some carriers to transport these materials. The ultimate impact of a NOPIC provision in the HMR, according to these commenters, could be to impede or delay transportation of Category B infectious substances.

One commenter (ALPA) supports a requirement for a NOPIC for shipments of Category B infectious substances. This commenter suggests a NOPIC is necessary to enable transport workers to make informed judgments concerning the segregation and loading of packages and enhances the ability of the pilot in command to make potentially life-saving decisions concerning the occupants of his or her aircraft and to advise emergency personnel.

As indicated above, Category B infectious materials pose a reduced risk in transportation because they do not cause life-threatening or fatal disease in otherwise healthy humans or animals. The hazard communication requirements adopted in this final rule are adequate to assure transport workers exercise care in handling packages of Category B materials and protect themselves if they discover a damaged or leaking package. We agree with commenters who suggest the impact of requiring a NOPIC for shipments of Category B infectious materials would be to impede or delay transportation of these shipments; such delays could adversely affect patient treatment and public health. Therefore, we are not adopting a requirement for a NOPIC for shipments of Category B infectious substances in this final rule.

F. Regulated Medical Waste

The HMR currently define regulated medical waste (RMW) to mean a waste or reusable material known to contain or suspected to contain an infectious substance in Risk Group 2 or 3, and generated in the diagnosis, treatment, or immunization of human beings or animals; research on the diagnosis, treatment, or immunization of human beings or animals; or the production or testing of biological products. In the NPRM, we proposed to revise this definition to mean a waste or reusable material known to contain or suspected to contain a Category B infectious substance. In accordance with the definition proposed in the NPRM, RMW containing a Category A infectious substance must be classed as Division 6.2, described as an infectious substance affecting humans or affecting animals only, as appropriate, assigned to UN 2814 or UN 2900, and transported in accordance with all applicable requirements. Medical waste containing a Category A infectious substance may not be transported under the shipping name ''Regulated medical waste, n.o.s.,'' UN 3291. Medical waste containing a Category A infectious substance must be described as ''Infectious substances, affecting humans'' or ''Infectious substances, affecting animals,'' assigned to UN 2814 or UN 2900, and packaged in a UN specification packaging conforming to the requirements of § 173.196 of the HMR. Infectious medical waste containing a Category A infectious substance is not excepted from regulation under 173.134(c) of the HMR when transported by private or contract carriers.

One commenter (Stericycle) expresses concern about the NPRM's treatment of RMW containing a Category A infectious substance, suggesting the proposals could be confusing for facilities generating RMW and the carriers transporting them. The commenter asks us to consider permitting RMW containing a Category A infectious substance to be transported as ''Regulated medical waste, n.o.s.,'' UN 3291, noting that about one-half of the materials listed in the preamble to the NPRM as Category A infectious materials are currently assigned to Risk Group 2 or 3 materials permitted to be transported as RMW under UN 3291.

The requirements adopted in this final rule for the transportation of RMW containing a Category A infectious substance are the same as the current HMR requirements for the transportation of RMW containing a Risk Group 4 infectious substance. A Category A infectious substance is one transported in a form capable of causing permanent disability or life-threatening or fatal disease to an otherwise healthy human or animal when exposure to it occurs. Certain Category B infectious substances in culture form pose a significant risk in transportation and were added to the Category A list under the regulations of the UN Recommendations, ICAO Technical Instructions, and the IMDG Code. We have adopted this provision as proposed in the NPRM to harmonize with these requirements.

As Stericycle notes, a number of the infectious agents on the list of Category A infectious substances are currently considered Risk Group 2 or 3 materials. However, they are included on the Category A list only as cultures—that is, when the pathogen is intentionally propagated. Most cultured infectious substances are not transported for disposal, but are destroyed or rendered non-infectious onsite. In all other forms, these materials are considered Category B infectious substances and may be transported as ''Regulated medical waste, n.o.s.,'' UN 3291. Requiring infectious medical waste containing a Category A infectious substance to be transported as an infectious substance, UN 2814 or 2900, appropriately addresses the risks posed by these materials. Therefore, we are adopting the requirements applicable to the transportation of RMW as proposed in the NPRM. RMW containing a Category A infectious substance should be handled and managed at medical facilities in the same manner as RMW containing a Risk Group 4 infectious substance is currently handled.

G. Sharps Containers

As currently required under the HMR, sharps containers generally must comply with § 173.197, which requires sharps to be in a UN specification packaging that is puncture resistant for sharps and sharps with residual fluid, as demonstrated by conformance with the design and test requirements in subpart M of part 178 at the Packing Group II performance level. The performance tests must be conducted with the packaging assembled as if for transportation, including with the closure secured as it would be for transportation. A sharps container that conforms to these requirements need not be placed in an outer packaging for transport. Under § 178.2(c), the packaging manufacturer must provide each person to whom the packaging is sold or transferred with a notification in writing specifying the types and dimensions of the closures, including gaskets and any other components

needed to assure the packaging is capable of passing the required tests. This notification must also include any procedures to be followed, including closures for inner packaging and receptacles, to enable a shipper to effectively assemble and close the package to prevent leakage during transportation.

A sharps container placed inside a bulk packaging, such as a UN specification Large Packaging or a non-specification bulk outer packaging or wheeled cart, must be puncture resistant. A sharps container that is 20 gallons or less in volume need not be a UN specification packaging if it is to be placed in a bulk outer packaging. A sharps container that is larger than 20 gallons in volume that is placed inside a bulk packaging must be capable of passing the performance tests in subpart M of part 178 at the Packing Group II performance level. A sharps container that will be placed in a bulk outer packaging for transportation may be reused only if it is specifically cleared or approved by FDA as a medical device for reuse and must have a capacity of between 2 and 40 gallons.

The HMR include an exception from certain requirements for regulated medical waste (RMW), including sharps, transported by a private or contract carriers (see § 173.134(c)). Under this exception, RMW, including sharps, may be transported in a rigid, non-bulk packaging that conforms to the general packaging requirements of §§ 173.24 and 173.24a and packaging requirements specified in OSHA standards at 29 CFR 1910.1030. The packaging requirements in §§ 173.24 and 173.24a address general packaging issues such as packaging integrity, filling limits, and closures. Specifically with regard to leakproofness, § 173.24(f) requires closures to be leakproof and secured against loosening. The OSHA standards at 29 CFR 1910.1030 require sharps containers to be puncture resistant and leakproof (see 1910.1030(d)(4)(iii)(A)(1)).

The NPRM proposed to clarify that sharps containers must be securely closed to prevent leaks or punctures based on our enforcement experience indicating insecure closures permit sharps to protrude from sharps containers during transportation. In the last two years, we have initiated five civil enforcement cases related to inadequate closures on sharps containers; there have been a number of other instances where an inspector identified problems with the closures, but did not initiate a civil enforcement action. One commenter (Gillian) states ''single use sharps container lids * * * will come off inside a transport container * * *. Some 40% of these containers have the lid dislodged in transport spilling their contents into the red bag.'' The commenters who address this issue (Gillian, NSWMA/MWI, Stericycle) are concerned the proposed requirement is not sufficiently precise and does not include sufficient guidance on the procedures to be followed to ensure compliance by container manufacturers or shippers. To address commenters' concerns that the proposal concerning closures was not sufficiently precise, in this final rule, we are modifying the provisions to specify a sharps packaging must be securely closed to prevent punctures or leakage during transportation in accordance with the instructions provided by the packaging manufacturer.

In the NPRM, we discussed Food and Drug Administration (FDA) requirements for sharps containers regulated as medical devices subject to pre-market review by FDA and asked commenters to address whether the HMR should permit FDA-cleared or -approved sharps containers to be used for the transportation of sharps and, if so, under what circumstances. The two commenters who addressed this issue had mixed views. One commenter (NSWMA) opposes the use of FDA-cleared sharps containers for transportation unless the container conforms in all respects to the HMR requirements in §§ 173.197 and 173.134. The commenter notes FDA's review process is intended to address whether the device is reasonable safe and effective for its intended use in hospital, laboratory, or healthcare facility settings, not in transportation. A second commenter (Stericycle), however, asserts the FDA requirements address the integrity of the material used to make sharps containers and assure containers meet puncture-resistance criteria and are leak-proof on the sides and bottom. This commenter recommends the HMR require all sharps to be transported in FDA-cleared containers.

As we stated in the preamble to the NPRM, sharps containers cleared or approved by FDA may not meet current HMR requirements in §§ 173.134 and 173.197. For example, the FDA review process is designed to determine, among other things, whether sharps containers are leak resistant on the sides and bottom and whether closures are leak resistant. This is a lesser standard than the leak-proofness standard established in the HMR. For this reason, we disagree with the commenter who recommends the HMR require all sharps to be transported in FDA-cleared containers. FDA-cleared sharps containers may be used to transport sharps provided the container conforms to applicable HMR requirements or the sharps container is placed inside a leak-proof outer packaging.

Two commenters express concern about the current requirement in the HMR for sharps containers to be leak-proof. One commenter (Stericycle) notes certain sharps containers are designed specifically to allow for venting to assure steam penetration during autoclaving and suggests the leak-proofness standard negatively impacts the effectiveness of autoclaving. This commenter suggests there are safe and effective alternatives to a leak-proofness standard for transportation, such as requiring containers to be positioned in an upright position in a transport vehicle or requiring absorbent material in sharps containers. Another commenter (Daniels) is concerned the HMR do not include a leak-proofness test standard. This commenter asserts sharps containers should be required to be leak-proof without secondary containment and proposes a leak-proofness test for incorporation into the HMR.

We did not propose in the NPRM to modify the current requirements for sharps containers to be leakproof. Thus, the comments concerning these requirements are beyond the scope of this rulemaking. However, we may consider revising the requirements for sharps containers in a future rulemaking.

H. Miscellaneous Comments

The HMR currently require air carriers to inspect all hazardous materials packages prior to transportation to ensure that the package conforms to HMR requirements and has no holes, leakage, or other indication that its integrity has been compromised (see § 175.30 (b)). Except for radioactive materials packages, there are no current requirements for inspecting packages for signs of leakage when they are unloaded from an aircraft. In the NPRM, we proposed to require for air transportation each package and overpack containing a Division 6.2 material to be inspected for signs of leakage. If evidence of leakage is discovered, the cargo compartment in which the package or overpack was transported must be disinfected. This proposal is consistent with the inspection requirements for air shipments in the ICAO Technical Instructions. One commenter (ALPA) suggests this requirement should also apply to packages of Division 6.2 materials transported on pallets or in

unit load devices. We agree, and are adopting this change in this final rule.

One commenter (JBM) asks us to clarify the difference between the exception for medical equipment in § 173.134(b)(12) and the requirements for the transportation of used health care products in § 173.199. In accordance with § 173.134(b)(12), medical equipment, including equipment intended for use, cleaning, or refurbishment is excepted from the HMR when it is transported in accordance with standards established by the Occupational Safety and Health Administration (OSHA) at 29 CFR 1910.1030. The regulations in § 173.199 are intended for the transportation of used health care products that do not conform to the OSHA standards.

A commenter (Schulte) suggests we move the requirements for the transportation of used health care products from § 173.199 and relocate them to § 173.134. The commenter states placing the requirements for used health care products in the same section as requirements for the transportation of Category B infectious substances suggests the risk from the transportation of used health care products is the same as for Category B infectious substances. We agree; in this final rule, we are relocating the requirements for used health care products currently in § 173.199(d) to § 173.134(b)(12)(ii).

III. Section-by-Section Review

This section-by-section review summarizes the changes adopted in this final rule.

Part 171

Section 171.8. In § 171.8, we are removing the definition for Risk Group.

Part 172

Section 172.101. In the Hazardous Materials Table, we are making several revisions. Most importantly, we are removing the current entry for ''Diagnostic Specimens'' for consistency with the 14th Revised Edition of the UN Recommendations. We are adding an entry for ''Biological substance, Category B.'' This entry will apply to shipments of Category B infectious substances, which must be classed as Division 6.2, described as a ''Biological substances, Category B,'' and assigned to UN 3373.

In addition, we are revising the entries for ''Infectious substances, affecting animals'' and ''Infectious substances, affecting humans'' to delete Special Provision A81 (see discussion below).

Section 172.102. We are removing Special Provision A81, which permits the quantity limits currently specified in the HMT for air shipments to be exceeded for shipments of body fluids packaged in accordance with § 173.196. This special provision is no longer necessary because paragraphs (b)(5) and (c)(6) of § 173.199 include quantity limits for air transportation applicable to shipments of Category B infectious substances.

Section 172.200. Consistent with requirements in the ICAO Technical Instructions, in § 172.200(b)(4) we are clarifying the shipping paper requirements do not apply to Category B infectious substances prepared in accordance with § 173.199 of the HMR. This is consistent with the requirements adopted for the UN Recommendations under Packing Instruction 650 and Special Provision 319, which except Category B infectious substances from shipping paper requirements.

Section 172.203. Under this final rule, unknown samples of infectious substances shipped for analysis and diagnosis may be transported in accordance with requirements for Category B infectious substances, because historically, materials meeting this definition have been transported in a similar manner with no adverse safety impact or increased risk to transport workers or the general public. For situations where the identity of the agent or pathogen is not known, but sufficient information is available to strongly suspect a Category A infectious substance, this final rule requires an indication on shipping papers that the sample contains a Category A infectious material. Suspected Category A infectious substances must be shipped in accordance with all applicable hazard communication and packaging requirements for Category A infectious substances. The determination as to whether to ship an unknown sample as a Category A or Category B infectious substance should be made by appropriate medical or public health officials based on known medical conditions and history of the source patient or animal, endemic local conditions, and symptoms of the source patient or animal. Thus, in paragraph (k) of § 172.203, we are authorizing a shipping paper accompanying a shipment of a suspected Category A infectious substance to include the words ''suspected Category A infectious substance'' in parentheses as an alternative to a technical name to describe the pathogen(s) it contains when the infectious substance is not known. Thus, the shipping description for a suspected Category A infectious substance affecting humans would read, ''Infectious substances, affecting humans (suspected Category A infectious substance), 6.2, UN 2814''. For known Category A pathogens, the technical name of the pathogen must be indicated.

Section 172.301. Consistent with the UN Recommendations, paragraph (b) of § 172.301 states technical names need not be marked on the outer packaging of Division 6.2 materials.

Section 172.800. We are requiring persons who offer for transportation or transport select agents and toxins regulated by USDA under 9 CFR part 121 to develop and implement security plans in accordance with requirements in Subpart I of part 172 of the HMR.

Part 173

Section 173.6. The current exception for materials of trade (MOTS) prohibits Risk Group 4 infectious substances from being transported as MOTS. We are modifying § 173.6(a)(4) to prohibit Category A infectious substances and suspected Category A infectious substances, rather than Risk Group 4 infectious substances, from being transported as materials of trade (MOTS). This amendment is consistent with the definition and classification criteria for infectious substances adopted for the UN Recommendations. In addition, we are modifying the packaging requirements for MOTS shipments of Division 6.2 materials. For consistency with international standards, we are limiting the amount of material each packaging may contain rather than the capacities of the packagings used. Finally, we are adding a requirement for sharps containers to be securely closed to prevent leaks or punctures. As indicated above, we are concerned the closures currently being used for sharps containers may not be adequate to assure no contents will be released during transportation.

Section 173.24a. We are modifying paragraph (c)(2) in § 173.24a to prohibit a package containing inner packagings of Division 6.2 materials from containing any other hazardous materials except for dry ice, liquid nitrogen, or small amounts of other hazardous material in Packing Groups II or III used to preserve or stabilize the infectious substance. Hazardous materials most commonly used to preserve or stabilize an infectious substance include methanol, isopropyl alcohol, boric acid, formaldehyde, formalin, and sodium borate. This provision is consistent with a provision adopted for the 2005–2006 edition of the ICAO Technical Instructions and by the UN Transport of Dangerous Goods Subcommittee for the 14th Revised Edition of the UN Recommendations.

The packaging requirements for Division 6.2 materials, which include triple packaging and absorbent material, are comparable to the packaging permitted for transporting hazardous materials in accordance with the small quantity exceptions in § 173.4 and should minimize the risk of a release in transportation. Therefore, when a hazardous preservative, such as a Class 3 or Class 8 material in Packing Groups II or III, is included in the inner packaging with the material, the preservative is not be subject to HMR requirements provided the amount in the inner packaging does not exceed 30 mL for a liquid or 30 g for a solid. The maximum quantity in an outer package, including a hazardous material used to preserve or stabilize a sample, may not exceed 4 L or 4 kg. Note this exception applies only to materials in Packing Groups II or III; PG I materials are not authorized. Note also, for amounts in excess of 30 mL or 30 g per inner packaging, hazardous preservative materials are regulated under the HMR and must be transported in accordance with requirements applicable to their specific classification and characteristics.

Section 173.134. We are making a number of revisions to § 173.134 for consistency with definitions and provisions adopted for the UN Recommendations, as follows:

(1) We are modifying the definition for a Division 6.2 material. The definition adopted in this final rule replaces the Risk Group ranking system with the two-tiered Category A and Category B system adopted by the UN Recommendations. The definition includes a requirement for a Division 6.2 material to be assigned an appropriate identification number: UN 2814 for Category A infectious substances affecting humans or both humans and animals; UN 2900 for Category A infectious substances affecting animals only; UN3373 for Category B infectious substances; and UN 3291 for Regulated medical waste.

(2) We are modifying the definition for ''biological product'' to replace the Risk Group ranking references with references to Category A and Category B infectious substances.

(3) We are adopting a definition for ''cultures'' consistent with the definition for ''cultures'' adopted in the UN for the 14th Revised Edition of the UN Recommendations. Cultures are the result of a process by which pathogens are intentionally propagated by use of ideal conditions, including temperature, environment, and nutrient-based propagation media. The definition adopted in this final rule refers to cultures prepared for the intentional generation of pathogens and does not include patient specimens intended for diagnostic or clinical purposes.

(4) We are adopting a new definition for ''patient specimen.'' As defined in this final rule, ''patient specimen'' means human or animal materials collected directly from humans or animals and transported for research, diagnosis, investigational activities, or disease treatment or prevention. Examples include excreta, secreta, blood and its components, tissue and tissue swabs, and body parts.

(5) We are modifying the definition for ''regulated medical waste'' to incorporate Category A and Category B infectious substances. RMW containing a Category A infectious substance must be classed as Division 6.2, described as an infectious substance, and assigned to UN 2814 or UN 2900, as appropriate. RMW containing Category B infectious substances is assigned to UN 3291.

(6) We are modifying the listed exceptions in paragraph (b) of § 173.134 for consistency with the UN Recommendations. Most of the exceptions are unchanged. However, we are adding an exception for a material with a low probability of containing an infectious substance or where the concentration of the infectious substance is at a level naturally occurring in the environment that will not cause disease when exposure occurs. Examples include foodstuffs and certain environmental samples. The new provision referring to environmental samples would replace the exception for these materials in current § 173.134(b)(13). In addition, we are adding an exception for dried blood spots and for specimens used to detect fecal occult blood. These are specimens collected from healthy patients for routine testing and screening (e.g., DNA analysis, forensic studies, immunologic studies, cancer screening, and nutritional evaluations of infants, children, and adults). The specimen is placed on paper, allowed to saturate the paper, and then dried completely. The specimens pose an extremely minimal risk of infection, and may be rendered unusable if placed in packaging that retains moisture or heat to the sample. More than 100 million specimens have been safely transported by routine mail over the last 30 years. Health professionals recommend these materials should be transported in a double-envelope system forming a double-layer protective barrier (i.e., inner and outer-sealed high quality, air-permeable paper envelope) or an attached heavy paper fold-over flap container placed into a secondary high-quality paper envelope.

In addition, in this final rule, we are excepting from regulation under the HMR a human or animal sample transported for routine testing not related to diagnosis of an infectious disease and for which there is no reason to suspect the sample is infectious. Routine screening tests include: (1) Blood or urine tests a doctor may order as part of a routine medical examination to monitor cholesterol levels, blood glucose levels, hormone levels, or prostate specific antibodies (PSA); (2) blood or urine tests to monitor liver or kidney functions for the millions of people who are not known to have an infectious disease and who are following a particular drug therapy regime; (3) blood or urine tests conducted for insurance or employment purposes and/or intended to determine the presence of alcohol or drugs; (4) DNA tests; and (5) pregnancy tests. Tests for diagnoses other than for the presence of pathogens include biopsies to detect cancer and antibody titre testing. This exception is consistent with exceptions adopted in the UN Recommendations for substances unlikely to cause disease in humans or animals and substances for which there is a low probability infectious substances are present.

(7) We are revising the exceptions in paragraph (c)(1) applicable to the transportation of regulated medical waste. We are adding a requirement for sharps containers shipped in accordance with this exception to be securely closed to prevent leaks or punctures. In addition, we are modifying paragraph (c)(2) to revise the current reference to Risk Group 2 or 3 infectious substances to Category B infectious substances.

(8) We are relocating requirements for transporting used health care products from § 173.199(d) to § 173.134(b)(12)(ii).

Section 173.196. We are modifying the Division 6.2 material packaging requirements in § 173.196 for consistency with the UN Recommendations. Generally, the revisions are editorial and do not change current packaging requirements. We are adding a requirement for outer packagings to be rigid. Note the packaging requirements in § 173.196 apply to shipments of Category A infectious substances only. The language describing the minimum size of the outer packaging is revised to clarify no external dimension of the packaging, i.e., no measurement on any outer surface of the packaging, shall be less than 100 mm (3.9 inches). Category B infectious substances are to be

transported in accordance with the provisions in § 173.199.

Section 173.197. We are modifying the RMW packaging requirements in § 173.197 to incorporate Category A and Category B infectious substances. The revisions do not substantively change the current packaging requirements for non-bulk or bulk shipments of RMW.

We are revising § 173.197(b) for clarification by correcting in the first sentence, ''except as otherwise provided in § 173.134 of this subpart'' to read ''except as authorized by § 173.134(c).'' In addition, in current paragraph (b) non-bulk RMW packaging is currently described as a DOT specification packaging meeting the requirements of Part 178 at the PG II performance level. We are revising the phrase ''DOT specification'' to read ''UN standard'' because non-bulk PG II refers to packagings in Part 178, Subpart L, conforming to a UN standard.

In § 173.197(d)(2)(iii), the reference to the drop test requirement prescribed in § 178.603 for non-bulk packagings is not correct. It should read ''Each Cart must be capable of meeting the requirements of § 178.810 (drop test) at the Packing Group II performance level.'' This section contains the drop test requirements for an intermediate bulk packaging.

In § 173.197(e)(3), in the introductory paragraph, we are revising the wording ''the performance tests in § 178.601'' to read ''the performance tests in part 178, subpart M''. There are no performance tests in § 178.601. This revision makes § 173.197(e)(3) consistent with § 173.197(b). Finally, we are adding a requirement for sharps containers to be securely closed to prevent leaks or punctures in conformance with instructions provided by the packaging manufacturer. We are concerned the closures currently being used for sharps containers may not be adequate to ensure no contents will be released during transportation.

Section 173.199. We are modifying this section for consistency with the UN Recommendations and ICAO Technical Instructions. Under this final rule, the provisions of § 173.199 will apply to shipments of Category B infectious substances. The packaging requirements are substantially the same as the current requirements for shipping diagnostic specimens, except we are requiring the outer packaging to be rigid. The completed packaging must be capable of passing the drop tests in §§ 178.609(d) and (h) at a height of 1.2 meters (3.9 feet). We are adopting pass/fail criteria for the drop test—there must be no leakage from the primary receptacle, and the primary receptacle must remain protected by absorbent material, when required, in the secondary packaging. In addition, we are requiring the use of absorbent materials for solids that may become liquid during transportation.

Consistent with amendments adopted for the UN Recommendations, we are removing the current capacity limitations for shipment of Category B infectious substances, except for Category B infectious substances transported by air. For air shipments of these materials, we are modifying the current limitations on capacity consistent with the amendments adopted in the 2005–2006 ICAO Technical Instructions. For liquids, we are increasing the amount of material permitted in each inner packaging from 500 mL (16.9 ounces) to 1 L (34 ounces); the limitation on the total amount of material permitted in the outer packaging remains 4 L (1 gallon). For solids, we are deleting the limitation on the amount of material permitted in each inner packaging; again, the limitation on the total amount of material permitted in the outer packaging remains 4 kg (8.8 pounds). We are also requiring at least one surface of the outer packaging to have a minimum dimension of 100 mm by 100 mm (3.9 inches).

Consistent with provisions proposed to be adopted for the 14th Edition of the UN Recommendations, we are requiring a package containing a Category B infectious substance and prepared in accordance with § 173.199 to be marked with the identification number ''UN 3373'' in a square-on-point configuration and with the proper shipping name ''Biological substances, Category B.'' Each side of the square-on-point mark must be at least 50 mm in length, and the proper shipping name ''Biological substances, Category B'' must be in letters at least 6 mm high. The proper shipping name, UN number, and the name, address, and telephone number of a person knowledgeable about the shipment must be included on a written document, such as an air waybill or bill of lading, or on the outer packaging. The knowledgeable person should be available during the company's administrative office hours to provide information about how to respond to emergencies or releases involving the package and appropriate first aid. Finally, we are permitting small amounts of hazardous materials in Packing Groups II or III, not to exceed 30 mL (1 ounce) or 30 g (1 ounce) in each inner packaging, to be used to preserve or stabilize the material. Such preservatives are not subject to HMR requirements.

Category B infectious substances prepared in accordance with § 173.199 are excepted from all other HMR requirements except for incident reporting and the requirements in Part 175 of the HMR prohibiting a hazardous material subject to the HMR requirements from being transported in the cabin of a passenger aircraft or the flight deck of any aircraft.

The requirements in § 173.199(d) for used health care products are relocated to § 173.134(b)(12)(ii).

Part 175

Section 175.630. We are adding a new paragraph (c) to this section to require air carriers to inspect packages containing Division 6.2 materials for leakage when they are unloaded. If evidence of leakage is found, the cargo compartment must be disinfected. In response to comments, we are modifying the proposal in this final rule to require air carriers to inspect unit load devices as well as individual packages and packages in overpacks.

IV. Rulemaking Analysis and Notices

A. Statutory/Legal Authority for This Rulemaking

This final rule is published under the following statutory authorities:

1. 49 U.S.C. 5103(b) authorizes the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce. This final rule adopts regulations to enhance the safe and secure transportation of infectious substances in intrastate, interstate, and foreign commerce. To this end, as discussed in detail earlier in this preamble, the final rule revises current HMR requirements applicable to infectious substances for classification, packaging, and hazard communication and for offerors and transporters of certain infectious substances to develop and implement security plans.

2. 49 U.S.C. 5120(b) authorizes the Secretary of Transportation to ensure that, to the extent practicable, regulations governing the transportation of hazardous materials in commerce are consistent with standards adopted by international authorities. This final rule adopts regulations applicable to the transportation of infectious substances in commerce consistent with international standards applicable to such transportation. To this end, as discussed in detail earlier in this preamble, the final rule harmonizes current HMR requirements for infectious substances with the standards adopted for the transportation of

infectious substances in the UN Recommendations, the 2005–2006 ICAO Technical Instructions, and Amendment 32 to the IMDG Code. The continually increasing amount of hazardous materials transported in international commerce warrants the harmonization of domestic and international requirements to the greatest extent possible. Harmonization serves to facilitate international transportation; at the same time, harmonization ensures the safety of people, property, and the environment by reducing the potential for confusion and misunderstanding that could result if shippers and transporters were required to comply with two or more conflicting sets of regulatory requirements. While the intent of this rulemaking is to align the HMR with international standards, we review and consider each amendment on its own merit based on its overall impact on transportation safety and the economic implications associated with its adoption into the HMR. Our goal is to harmonize without sacrificing the current HMR level of safety and security and without imposing undue burdens on the regulated public. As discussed in detail earlier in this preamble, there are several instances where we elected not to propose adoption of a specific provision of the UN Recommendations or the ICAO Technical Instructions. Further, we are maintaining a number of current exceptions for domestic transportation to minimize the compliance burden on the regulated community.

B. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is not a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, was not reviewed by the Office of Management and Budget. This final rule is not considered significant under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034). This final rule will reduce transportation costs for shipments of certain infectious substances. We estimate annual cost savings of $3.85 billion. Additional benefits resulting from the adoption of the amendments in this final rule include enhanced transportation safety, security, and efficiency resulting from consistent domestic and international transportation requirements. The final rule will result in new costs of compliance related to the development and implementation of transportation security plans for persons who ship USDA-regulated select agents and toxins. A regulatory evaluation for this final rule is in the public docket for this rulemaking.

This final rule relaxes requirements for transporting Category B infectious substances. Currently, many of these infectious substances must be shipped in appropriately marked and labeled UN specification packagings and accompanied by shipping papers and emergency response information; these infectious substances are also subject to incident reporting requirements. Under this final rule, Category B infectious substances may be shipped in non-specification packagings, marked with the appropriate UN number. However, they are excepted from labeling and shipping documentation requirements. Category B infectious substances are also excepted from incident reporting requirements, except for shipments by aircraft.

We estimate that shippers of most infectious substances will realize an average cost savings of $77 per shipment. There are no published data on the number of infectious substances shipments transported each year. Industry estimates suggest about 160 million patient samples are shipped outside of a local area each year (ground transportation of infectious substances is excepted from most HMR requirements). A shipment may contain from one to 20 test tubes or primary containers, with an average of about 3 primary containers per package. Thus, the number of shipments transported annually by air may total 53 million. Under this final rule, most of these shipments will realize a cost savings of $77, for a total annual cost savings of $3.85 billion (50 million shipments × $77/shipment).

This final rule will also result in significant non-monetized benefits. The final rule harmonizes the requirements in the HMR for transporting infectious substances with international standards in the UN Recommendations, the ICAO Technical Instructions, and the International Maritime Dangerous Goods Code. Harmonization of requirements in the HMR with international standards will allow us to avoid inconsistencies between the regulations, thereby facilitating rapid and efficient transportation of infectious substances across national or international borders, which is critical to public health. Moreover, harmonized regulations reduce the potential for misunderstanding and confusion and, thus, enhance safety.

Estimating the security benefits of this final rule is difficult. In the end, when security measures are evaluated, an element of judgment is required to determine whether the costs of the measures are justified by the benefits that will accrue. We believe the relatively small costs imposed on individual companies to comply with the security plan requirements are more than offset by the benefits if there is a finite chance that these measures might avert a successful attack. Most entities handling USDA-regulated select agents and toxins likely have already implemented security measures similar to those required under the HMR. The security requirements are not onerous. They are prudent, common sense security measures in line with public expectations about the need to take action to protect hazardous materials shipments from terrorist acts.

C. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (''Federalism''). This final rule preempts State, local, and Indian tribe requirements but does not propose any regulation with substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazardous materials transportation law, 49 U.S.C. 5101–5127, contains an express preemption provision (49 U.S.C. 5125(b)) preempting State, local, and Indian tribe requirements on certain covered subjects. Covered subjects are:

(1) The designation, description, and classification of hazardous materials;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;

(3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; or

(5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This final rule addresses covered subject items (1), (2), (3), (4), and (5) described above and preempts State, local, and Indian tribe requirements not meeting the ''substantively the same'' standard. This final rule is necessary to harmonize domestic regulations for the

transportation of infectious substances with international standards.

Federal hazardous materials transportation law provides at § 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. The effective date of Federal preemption of this final rule will be 90 days from publication in the **Federal Register**.

D. Executive Order 13175

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13175 (''Consultation and Coordination with Indian Tribal Governments''). Because this proposed rule does not have tribal implications and does not impose direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply.

E. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies

The Regulatory Flexibility Act (5 U.S.C. 601–611) requires each agency to analyze proposed regulations and assess their impact on small businesses and other small entities to determine whether the proposed rule is expected to have a significant impact on a substantial number of small entities. A regulatory evaluation for this NPRM, which includes a detailed small business impact analysis, is in the public docket for this rulemaking.

Businesses likely to be affected by the provisions of this final rule are the more than 441,000 establishments comprising North American Industrial Classification System Major Groups 32, 48, 54, and 62, including offices and clinics of doctors of medicine, dentists, doctors of osteopathy, chiropractors, optometrists, podiatrists, and health practitioners; nursing and personal care facilities; hospitals; medical and dental laboratories; and patients. For purposes of the small business impact analysis, the definition of ''small business'' has the same meaning as under the Small Business Act. The majority of the businesses likely to be affected by the provisions of this final rule are small businesses (from 68% of general medical and surgical hospitals to nearly 100% of doctors' offices and research laboratories).

For the most part, affected businesses will incur no increased costs to comply with the provisions of this final rule; indeed, the provisions of this final rule will reduce overall transportation costs for most of these entities. Manufacturers and distributors of packages intended for the transportation of infectious substances will incur costs associated with retaining copies of filling and closure instructions for such packages; we estimate the cost per company will be about $750/year. In addition, air carriers will incur increased costs associated with new cargo inspection requirements; we estimate these costs would amount to $1.34 per package of infectious substances transported. Finally, the final rule imposes new costs on the regulated industry for shipments of select agents and toxins regulated by USDA; we estimate these costs would amount to $1,125 per company to develop a security plan and a subsequent annual cost of $225 per entity to update and maintain the security plan. The annual costs attributed to the provisions of this final rule are minimal, especially when compared to the $300 billion in receipts reported by the health services industry. We believe none of those costs will be disproportionately borne by any of the identified groups of small businesses.

Benefits resulting from the adoption of the amendments in this final rule include reduced transportation costs for shipments of certain infectious substances and enhanced transportation safety, security, and efficiency resulting from consistent domestic and international transportation requirements. For example, companies shipping infectious substances can expect to experience an average cost savings of $77 per shipment as packaging costs decrease from between $88.30–$143.78 to between $29.85–$48.07 as a result of new packaging requirements for Category B infectious substances and $1.90 per shipment as a result of revised hazard communication requirements for Category B infectious substances. In addition, the final rule will result in enhanced security for the transportation of select agents. Finally, the final rule removes inconsistencies between the HMR and international transportation standards applicable to the transportation of infectious substances, thereby facilitating efficient transportation across national and international borders and reducing the potential for misunderstanding and confusion in applying the regulatory requirements.

Based on the above analysis, I certify that while this final rule will affect a significant number of small entities it will not have a significant economic impact on a substantial number of small entities.

This final rule has been developed in accordance with Executive Order 13272 (''Proper Consideration of Small Entities in Agency Rulemaking'') and DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure potential impacts of draft rules on small entities are properly considered.

F. Unfunded Mandates Reform Act of 1995

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It will not result in costs of $120.7 million or more, in the aggregate, to any of the following: State, local, or Native American tribal governments, or the private sector.

G. Paperwork Reduction Act

This final rule does not impose any new information collection requirements.

H. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document may be used to cross-reference this action with the Unified Agenda.

I. Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321–4347), requires Federal agencies to consider the consequences of major federal actions and prepare a detailed statement on actions significantly affecting the quality of the human environment. There are no significant environmental impacts associated with this final rule. We are adopting changes to certain HMR requirements for the transportation of infectious substances in order to promote safer transportation practices, facilitate international commerce, and make these requirements compatible with new international standards regarding the transportation of infectious substances.

J. Privacy Act

Any comments received into any of our dockets may be searched electronically by the name of the individual submitting the comments (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11,

2000 (Volume 65, Number 70; Pages 19477–78) or you may visit *http://dms.dot.gov.*

List of Subjects

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

49 CFR Part 172

Education, Hazardous materials transportation, Hazardous waste, Incorporation by reference, Labeling, Markings, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 173

Hazardous materials transportation, Incorporation by reference, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

49 CFR Part 175

Air carriers, Hazardous materials transportation, Incorporation by reference, Radioactive materials, Reporting and recordkeeping requirements.

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 171, 172, 173, 175, 176, 178 and 180

[Docket No. PHMSA–06–25476 (HM–215I)]

RIN 2137–AE16

Hazardous Materials: Harmonization With the United Nations Recommendations, International Maritime Dangerous Goods Code, and International Civil Aviation Oganization's Technical Instructions

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Final rule.

SUMMARY: This final rule revises the Hazardous Materials Regulations to maintain alignment with international standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations and vessel stowage requirements. These revisions will harmonize the Hazardous Materials Regulations with certain recent changes to the International Maritime Dangerous Goods Code, the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air, and the United Nations Recommendations on the Transport of Dangerous Goods.

DATES: *Effective date:* January 1, 2007.

Voluntary Compliance Date: PHMSA is authorizing voluntary compliance beginning January 1, 2007.

Delayed Compliance Date: Unless otherwise specified, mandatory compliance with the amendments adopted in this final rule is required beginning January 1, 2008.

Incorporation by Reference Date: The incorporation by reference of the publications adopted in § 171.7 of this final rule has been approved by the Director of the Federal Register as of January 1, 2007.

FOR FURTHER INFORMATION CONTACT: Charles Betts, Office of Hazardous Materials Standards, telephone (202) 366–8553, or Shane Kelley, International Standards, telephone (202) 366–0656, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 400 Seventh Street, SW., Washington, DC 20590–0001.

SUPPLEMENTARY INFORMATION:

Contents

I. Background

By notice of proposed rulemaking (NPRM) published August 31, 2006, the Pipeline and Hazardous Materials Safety Administration (PHMSA, we) published proposed revisions to the hazard communication, classification, and packaging requirements of the Hazardous Materials Regulations (HMR), 49 CFR parts 171–180, to align with updates and revisions to the United Nations Recommendations on the Transport of Dangerous Goods (UN Recommendations), the International Maritime Dangerous Goods (IMDG) Code and the International Civil Aviation Organization (ICAO) Technical Instructions for the Transport of Dangerous Goods by Air. The UN Recommendations are amended and updated biennially by the UN Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labeling of Chemicals and serve as the basis for national, regional, and international modal regulations, including the IMDG Code, and the ICAO Technical Instructions.

The harmonization of domestic and international standards becomes increasingly important as the volume of hazardous materials transported in international commerce grows. Harmonization facilitates international trade by minimizing the costs and other burdens of complying with multiple or inconsistent safety requirements for transportation of hazardous materials to and from the United States. By facilitating compliance, harmonization also tends to enhance safety for international movements, but only if the international standards themselves provide an appropriate level of safety. To that end, PHMSA actively participates in the development of international standards for the transportation of hazardous materials, frequently advocating the adoption in international standards of particular HMR requirements. When considering the adoption of international standards under the HMR, we review and consider each amendment on its own merit. Each amendment is considered on the basis of its overall impact on transportation safety and the economic implications associated with its adoption into the HMR. Our goal is to harmonize without diminishing the level of safety currently provided by the HMR and without imposing undue burdens on the regulated public.

To maintain alignment of the HMR with international requirements, in this final rule, we are incorporating changes into the HMR based on the Fourteenth revised edition of the UN Recommendations and UN Manual of Tests and Criteria, Amendment 33 to the IMDG Code, and the 2007–2008 ICAO Technical Instructions, which become effective January 1, 2007. We are also addressing petitions for rulemaking concerning harmonization with international standards and additional measures to facilitate international transportation.

The comment period for the proposed rule closed on October 16, 2006. PHMSA received 28 comments in response to the proposed rulemaking. The following individuals, companies and organizations submitted comments:

(1) Georgia Department of Public Safety (GPS; PHMSA–06–25476–4);
(2) North American Transportation Consultants (NATC; PHMSA–06–25476–7);
(3) Lawrence Laude (Laude; PHMSA–06–25476–8);
(4) United Parcel Service (UPS; PHMSA–06–25476–9);
(5) Christopher L. Botteri (Botteri; PHMSA–06–25476–10);
(6) Dennis Eisenhofer (Eisenhofer; PHMSA–06–25476–11);
(7) HMT Associates (HMT; PHMSA–06–25476–12);
(8) Phillip Adamo (Adamo; PHMSA–06–25476–13);
(9) Institute of Makers of Explosives (IME; PHMSA–06–25476–14);
(10) J & S Warehouse (J&S; PHMSA–06–25476–17);
(11) Rising Star Transportation (RST; PHMSA–06–25476–18);
(12) National Tank Truck Carriers (NTTC; PHMSA–06–25476–19);
(13) Air Products and Chemicals (AP&C; PHMSA–06–25476–20);
(14) All Chemical Transport and Leasing (AllChem; PHMSA–06–25476–21);

(15) International Sanitary Supply Association (ISSA; PHMSA–06–25476–22);
(16) American Trucking Association (ATA; PHMSA–06–25476–23);
(17) The Chlorine Institute (CI; PHMSA–06–25476–24);
(18) International Vessel Operators Hazardous Materials Association, Inc. (VOHMA; PHMSA–06–25476–25);
(19) Arkema (Arkema; PHMSA–06–25476–26);
(20) Unidentified commenter (UC1; PHMSA–06–25476–28);
(21) Laboratory Corporation of America Holdings (LabCorp; PHMSA–06–25476–29);
(22) Unidentified commenter (UC2; PHMSA–06–25476–30);
(23) National Association of Chemical Distributors (NACD; PHMSA–06–25476–31);
(24) National Paint & Coating Association (NPCA; PHMSA–06–25476–33);
(25) Dangerous Goods Advisory Council (DGAC; PHMSA–06–25476–34);
(26) Degussa Corporation (Degussa; PHMSA–06–25476–35);
(27) Federal Express (FedEx; PHMSA–06–25476–36): and
(28) Association of HazMat Shippers, Inc. (AHS; PHMSA–06–25476–37).

Commenters were supportive of PHMSA's efforts to harmonize the HMR with international standards. Many of the proposals in the NPRM are fully supported by commenters, while others received little or no comment; these amendments are adopted as proposed. Several comments were beyond the scope of this rulemaking and are not addressed in this final rule.

In the NPRM, we requested comments on whether certain amendments should be tied to a sunset provision. We received six comments (GPS, IME, NTTC, AP&C, ATA, and NPCA) opposing the idea of a sunset provision. We agree with the commenters that for an international harmonization rulemaking, sunsetting some or all of the regulatory provisions is not appropriate. Therefore, we are not adopting a sunset provision for the amendments in this final rule. Other comments are discussed in the Section-by-Section Review.

II. Overview

A. Amendments Adopted in This Final Rule

In this final rule, we are adopting the following amendments to the HMR:

- Adoption of a single shipping paper description sequence (identification number, proper shipping name, hazard class or division, packing group).
- Requirement to indicate the net quantity of hazardous material per package on the shipping paper if transportation is by aircraft.
- Incorporation by reference of the updated ICAO Technical Instructions, IMDG Code, and UN Recommendations.
- Amendments to the Hazardous Materials Table (HMT) to add, revise, or remove certain proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, bulk packaging requirements, passenger and cargo aircraft maximum quantity limitations and vessels stowage provisions.
- Revision of the ORGANIC PEROXIDE label and placard.
- Revision of the classification criteria for PG III flammable liquids.
- Revision of the classification criteria and packing group assignments for Division 6.1 materials.
- Requirements for the transportation of fuel cells containing flammable liquid.
- Adoption of a one-packet limit for matches carried by airline passengers or crew members.

B. International Standards Not Being Adopted in This Final Rule

This final rule makes changes to the HMR based on amendments to the Fourteenth revised edition of the UN Recommendations, Amendment 33 to the IMDG Code, and the 2007–2008 ICAO Technical Instructions, which become effective January 1, 2007. However, we are not adopting all of the amendments to those documents into the HMR. In many cases, amendments to the international regulations have not been adopted because the framework or structure of the HMR makes adoption unnecessary. In other cases, we have handled, or will be handling, the amendments in separate rulemaking proceedings. For example, we addressed requirements related to the transportation of infectious substances in a final rule published June 2, 2006, under Docket HM–226A (71 FR 32244). Similarly, we adopted amendments relating to the use of UN cylinders and pressure vessels in a final rule published June 12, 2006, under Docket HM–220E (71 FR 33858).

One of the goals of this rulemaking is to continue to maintain consistency between the HMR and the international requirements. We are not striving to make the HMR identical to the international regulations but rather to remove or avoid potential barriers to international transportation.

Below is a listing of significant amendments to the international regulations that we are not adopting in this final rule with a brief explanation of why the amendment was not included:

- *Environmentally hazardous substances.* The UN Recommendations include new defining criteria for environmentally hazardous substances. The UN criteria have not yet been adopted by ICAO and IMO. We will consider these changes in a separate rulemaking proceeding.
- *Hazardous materials security.* Like the HMR, the UN Recommendations require carriers, consignors and others engaged in the transport of ''high consequence'' dangerous goods to adopt, implement and comply with a security plan that addresses the transportation risks associated with these materials. A major difference between the HMR and the UN Recommendations is the quantity of hazardous material that triggers the requirement for a security plan. On September 21, 2006, PHMSA published an advance notice of proposed rulemaking (71 FR 55156) to consider revisions to the list of hazardous materials that triggers security plan requirements under the HMR. We will consider whether the HMR list should be harmonized with the UN Recommendations list as part of this initiative.
- *Requirements for radioactive materials.* We are not adopting provisions pertaining to the transportation of Class 7 (radioactive) materials. Amendments to requirements pertaining to the transportation of Class 7 materials are based on changes contained in the International Atomic Energy Agency (IAEA) publication, ''IAEA Safety Standards Series: Regulations for the Safe Transport of Radioactive Materials.'' Due to their complexity, these changes will be addressed in a separate rulemaking.
- *Default classification system for fireworks.* We are not adopting these provisions of the UN Recommendations because we do not believe the UN classification system provides an equivalent level of safety to the current HMR requirements. Under the HMR, fireworks must be classed and approved by the Associate Administrator for Hazardous Materials Safety; the approvals are based on American Pyrotechnic Association Standard 87–1.
- *Fuel cells.* We are not adopting provisions for the carriage of fuel cell cartridges in the passenger cabin of a passenger aircraft that were adopted by ICAO. Also, we are not adopting the packaging provisions for the transport of ''Hydrogen in a metal hydride storage system,'' (UN3468), as adopted by ICAO. Currently, the HMR allow

transportation of these storage systems by motor vehicle and rail under the terms of a special permit and by motor vehicle, rail, cargo vessel and cargo aircraft with approval of the Associate Administrator. These issues will be considered in a separate rulemaking proceeding.

• *Marking of Limited Quantity shipments.* The ICAO Technical Instructions include a marking requirement for packages containing a limited quantity of hazardous material. The mark consists of the identification number of the material placed within a square-on-point border. The marking is anticipated to become effective January 1, 2009. Except for transportation by aircraft, this marking is currently authorized under the HMR as an alternative to marking the proper shipping name on the package; we are allowing continued use of this marking to minimize transportation costs and provide flexibility.

III. Section-by-Section Review

Part 171

Section 171.7

Section 171.7 lists the standards incorporated by reference into the HMR. We are updating the incorporation by reference materials for the ICAO Technical Instructions, the IMDG Code, the UN Recommendations and the UN Manual of Tests and Criteria. The updated editions of these standards become effective January 1, 2007. We did not receive comments opposing these incorporations by reference; therefore the standards are updated as follows:

• The ICAO Technical Instructions, 2007–2008 Edition.
• The IMDG Code, Amendment 33–06.
• The UN Recommendations, Fourteenth revised edition.
• The UN Manual of Tests and Criteria, Fourth revised edition (2003), and Addendum 2 (2004).

Section 171.14

This section lists specific transition periods for certain provisions adopted into the HMR. Comments pertaining to transition periods are discussed below.

Paragraph (b) lists transitional provisions related to revised placarding requirements. In this final rule, we are removing paragraph (b) because the transition period has expired.

Paragraph (d) of this section specifies transitional provisions for previously adopted amendments intended to harmonize the HMR with international standards. We are revising this paragraph to provide specific transitional provisions for certain amendments in this final rule. The effective date of this final rule is January 1, 2007, and the mandatory compliance date is January 1, 2008. We are permitting voluntary compliance as of January 1, 2007, to correspond with the effective implementation dates of the 2007–2008 ICAO Technical Instructions and Amendment 33–06 of the IMDG Code. This authorization allows shippers to prepare their international shipments in accordance with international standards that will become effective on January 1, 2007.

Paragraph (e) of this section contains an outdated transitional provision. In this final rule, we are replacing the outdated transitional provision with a new paragraph (e) that permits use for domestic shipments of the shipping description sequences in effect on December 31, 2006, until January 1, 2013. See the § 172.202 preamble discussion for a complete explanation of the shipping description sequence issue.

Paragraph (f) of this section contains an outdated transitional provision. We are revising paragraph (f) by removing the current provision and adding a transitional provision to allow continued display of Division 5.2 labels and placards conforming to the specifications in effect on December 31, 2006, until January 1, 2014 for transportation by highway and until January 1, 2011 for transportation by rail, vessel or aircraft. See the §§ 172.407, 172.427 and 172.552 preamble discussions for a complete explanation of this issue.

In new paragraph (g), we are allowing continued use of the Class 3 and Division 6.1 classification criteria and packing group assignments in effect on December 31, 2006, until January 1, 2012. See §§ 173.120 and 174.133 preamble discussions for a complete explanation of this issue.

Part 172

Section 172.101

Section 172.101 contains the Hazardous Materials Table (HMT) and explanations for each of the columns in the HMT. Paragraph (d) of this section addresses column 3 of the HMT containing the hazard class or division for each specific material listed in the HMT. Paragraph (d)(4) addresses entries classed as combustible liquids. In the NPRM, we proposed to revise paragraph (d)(4) to revise the lower limit for classing a material as a combustible liquid from 60.5 °C (141 °F) to 60 °C (140 °F). This is consistent with recent changes to the classification of flammable liquids based on the adoption of the GHS within the UN Recommendations. We did not receive comments opposing this proposal; therefore, it is adopted in this final rule.

The § 172.101 Hazardous Materials Table (HMT)

In this final rule, we are making various amendments to the § 172.101 Hazardous Materials Table (HMT). Readers should review all changes for a complete understanding of the Table amendments. For purposes of the Government Printing Office's typesetting procedures, changes to the HMT appear under three sections of the Table, ''remove,'' ''add'' and ''revise.'' Certain entries in the HMT, such as those with revisions to the proper shipping names, will appear as a ''remove'' and ''add.'' We did not receive comments opposing the changes to the HMT proposed in the NPRM. Therefore, in this final rule we are adopting the following amendments to the HMT for the purpose of harmonizing with international standards:

1. We are correcting Column (7) Special provisions of the HMT by removing Special Provision 101 which requires the name of the particular substance or article to be specified. With the introduction of the letter ''G'' for these materials in Column (1), requiring the n.o.s. and generic proper shipping names to be supplemented with the technical name of the hazardous material, Special Provision 101 becomes obsolete and duplicative. The affected entries are as follows:

UN0349	Articles, explosive, n.o.s.
UN0350	Articles, explosive, n.o.s.
UN0351	Articles, explosive, n.o.s.
UN0352	Articles, explosive, n.o.s.
UN0353	Articles, explosive, n.o.s.
UN0354	Articles, explosive, n.o.s.
UN0355	Articles, explosive, n.o.s.
UN0356	Articles, explosive, n.o.s.
UN0462	Articles, explosive, n.o.s.
UN0463	Articles, explosive, n.o.s.
UN0464	Articles, explosive, n.o.s.
UN0465	Articles, explosive, n.o.s.
UN0466	Articles, explosive, n.o.s.
UN0467	Articles, explosive, n.o.s.
UN0468	Articles, explosive, n.o.s.
UN0469	Articles, explosive, n.o.s.
UN0470	Articles, explosive, n.o.s.
UN0471	Articles, explosive, n.o.s.
UN0472	Articles, explosive, n.o.s.
UN0382	Components, explosive train, n.o.s.
UN0383	Components, explosive train, n.o.s.
UN0384	Components, explosive train, n.o.s.
UN0461	Components, explosive train, n.o.s.
UN0357	Substances, explosive, n.o.s.
UN0358	Substances, explosive, n.o.s.
UN0359	Substances, explosive, n.o.s.
UN0473	Substances, explosive, n.o.s.
UN0474	Substances, explosive, n.o.s.
UN0475	Substances, explosive, n.o.s.
UN0476	Substances, explosive, n.o.s.
UN0477	Substances, explosive, n.o.s.

UN0478 Substances, explosive, n.o.s.
UN0479 Substances, explosive, n.o.s.
UN0480 Substances, explosive, n.o.s.
UN0481 Substances, explosive, n.o.s.
UN0485 Substances, explosive, n.o.s.
UN0482 Substances, explosive, very insensitive, n.o.s. *or* Substances, EVI, n.o.s.

2. Amendment 32 of the IMDG Code added a new segregation group for alkalis. For consistency with international regulations and in response to a petition from Horizon Lines (P–1470), we are revising the Vessel stowage provisions in Column (10B) by adding Segregation Code ''52'' (Stow ''Separated from'' acids) to certain entries. The affected entries are as follows:

UN2733 Amines, flammable, corrosive, n.o.s. *or* Polyamines, flammable, corrosive, n.o.s.
UN2671 Aminopyridines *(o-; m-; p-)*
UN1005 Ammonia, anhydrous
UN3318 Ammonia solution, *relative density less than 0.880 at 15 degrees C in water, with more than 50 percent ammonia*
UN2672 Ammonia solutions, *relative density between 0.880 and 0.957 at 15 degrees C in water, with more than 10 percent but not more than 35 percent ammonia*
UN2073 Ammonia solutions, *relative density less than 0.880 at 15 degrees C in water, with more than 35 percent but not more than 50 percent ammonia*
UN3028 Batteries, dry, containing potassium hydroxide solid, *electric, storage*
UN2795 Batteries, wet, filled with alkali, *electric storage*
UN2797 Battery fluid, alkali
UN2682 Caesium hydroxide
UN2681 Caesium hydroxide solution
UN1719 Caustic alkali liquids, n.o.s.
UN1160 Dimethylamine solution
UN2379 1, 3-Dimethylbutylamine
UN2382 Dimethylhydrazine, symmetrical
UN1163 Dimethylhydrazine, unsymmetrical
UN3253 Disodium trioxosilicate
UN2491 Ethanolamine *or* Ethanolamine solutions
UN2270 Ethylamine, aqueous solution *with not less than 50 percent but not more than 70 percent ethylamine*
UN1604 Ethylenediamine
UN2386 1-Ethylpiperidine
UN2029 Hydrazine, anhydrous
UN3293 Hydrazine, aqueous solution, *with not more than 37 percent hydrazine, by mass*
UN2030 Hydrazine, aqueous solution, *with more than 37 percent hydrazine, by mass*
UN2680 Lithium hydroxide
UN2679 Lithium hydroxide, solution
UN1235 Methylamine, aqueous solution
UN1244 Methylhydrazine
UN2399 1-Methylpiperidine
UN1813 Potassium hydroxide, solid
UN1814 Potassium hydroxide, solution
UN2033 Potassium monoxide
UN1922 Pyrrolidine
UN2678 Rubidium hydroxide
UN2677 Rubidium hydroxide solution
UN1907 Soda lime *with more than 4 percent sodium hydroxide*
UN1819 Sodium aluminate, solution
UN2318 Sodium hydrosulfide, *with less than 25 percent water of crystallization*
UN1823 Sodium hydroxide, solid
UN1824 Sodium hydroxide solution
UN1825 Sodium monoxide
UN1849 Sodium sulfide, hydrated *with not less than 30 percent water*
UN2320 Tetraethylenepentamine
UN3073 Vinylpyridines, stabilized

3. The entry ''Aerosols, *non-flammable, (each not exceeding 1 L capacity)*,'' UN1950, is revised by adding vessel storage location code ''A'' in Column (10A). This code was inadvertently removed in a final rule published September 23, 2005 under Docket HM–189Y (70 *FR* 56084).

4. The entry ''Antimony trichloride, solid,'' UN1733, PG II, is revised by adding Special Provisions T3 and TP33. Special Provision T3 specifies the applicable minimum test pressure, the minimum shell thickness, bottom opening requirements and pressure relief requirements when transporting this material in a UN portable tank. Special Provision TP33 specifies requirements applicable to the transportation of this material in IM and UN Specification portable tanks.

5. The entry, ''Articles, explosive, extremely insensitive *or* Articles, EEI,'' UN0486, is revised by removing Special Provision 101 which requires the name of the particular substance or article to be specified.

6. The entry ''Benzyl bromide,'' UN1737, PG II, is revised by removing the reference to § 173.153 ''Exceptions for Division 6.1 (poisonous materials)'' in Column (8A).

7. The entry ''Benzyl chloride,'' UN1738, PG II, is revised by removing the reference to § 173.153 ''Exceptions for Division 6.1 (poisonous materials)'' in Column (8A).

7a. The entry ''Calcium hypochlorite, hydrated *or* Calcium hypochlorite, hydrated mixtures,'' UN2880, PG II, is revised by removing Special Provision 166.

8. In accordance with changes in the Fourteenth revised edition of the UN Recommendations, we are removing the following entries:

—''Carbon dioxide and nitrous oxide mixtures,'' UN1015;
—''Carbon dioxide and oxygen mixtures, compressed,'' UN1014; and
—''Carbon monoxide and hydrogen mixture, compressed,'' UN2600.

9. The entry, ''Charges, shaped, flexible, linear,'' UN0288, is revised by removing Special Provision 101, which requires the name of the particular substance or article to be specified.

10. The entry ''Chlorosilanes, corrosive, n.o.s.,'' UN2987, PG II, is revised by removing the reference to § 173.154 ''Exceptions for Class 8 (corrosive materials)'' in Column (8A).

11. The entry ''Chlorosilanes, flammable, corrosive, n.o.s.,'' UN2985, PG II, is revised by removing the reference to § 173.150 ''Exceptions for Class 3 (flammable) and combustible liquids'' in Column (8A).

12. The entry ''Chlorosilanes, toxic, corrosive, n.o.s.,'' UN3361, PG II, is revised by removing the reference to § 173.153 ''Exceptions for Division 6.1 (poisonous materials)'' in Column (8A).

13. The entry ''Chlorosilanes, toxic, corrosive, flammable, n.o.s.,'' UN3362, PG II, is revised by removing the reference to § 173.153 ''Exceptions for Division 6.1 (poisonous materials)'' in Column (8A).

14. The entry ''Chromium trioxide, anhydrous,'' UN1463, Column (6) is revised by adding the Division 6.1 subsidiary hazard labeling requirement.

15. The entry ''Compressed gas, n.o.s.,'' UN1956, is revised by adding Special Provision 77. Special Provision 77 requires, for domestic transportation, a Division 5.1 subsidiary risk label when a carbon dioxide and oxygen mixture contains more than 23.5% oxygen.

16. The entry, ''Contrivances, water-activated, *with burster, expelling charge or propelling charge,*'' UN0248, is revised by removing Special Provision 101, which requires the name of the particular substance or article to be specified. In addition, the letter ''G'' is added to Column (1), requiring the proper shipping name to be supplemented with the technical name of the hazardous material.

17. The entry, ''Contrivances, water-activated, *with burster, expelling charge or propelling charge,*'' UN0249, is revised by removing Special Provision 101, which requires the name of the particular substance or article to be specified. In addition, the letter ''G'' is added to Column (1), requiring the proper shipping name to be supplemented with the technical name of the hazardous material.

18. The entry ''Corrosive liquid, acidic, inorganic, n.o.s.,'' UN3264, PG II, is revised by removing Special Provision A6. Special Provision A6 specifies that for combination packagings, if plastic inner packagings are used, they must be packed in tightly closed metal receptacles before packing in outer packagings. Special Provision A6 applies only to the PG I entry of this material.

19. The proper shipping name for the entry ''Crotonaldehyde, stabilized,''

UN1143, is revised to read ''Crotonaldehyde *or* Crotonaldehyde, stabilized'' and to add new Special Provision 175. New Special Provision 175 specifies this material is required to be stabilized when in concentrations of not more than 99%. The revision appears as a ''Remove/Add'' in this rulemaking.

20. The proper shipping name for the entry ''Crotonic acid, *liquid,*'' UN2823, is corrected to read ''Crotonic acid, liquid'' and the Identification Number is revised to read ''UN3472.'' This revision appears as a ''Remove/Add'' in this rulemaking.

21. The proper shipping name for the entry ''Crotonic acid, *solid,*'' UN2823, is corrected to read ''Crotonic acid, solid,'' UN2823. This correction appears as a ''Remove/Add'' in this rulemaking.

22. In accordance with the ICAO Technical Instructions, the entry ''Dangerous Goods in Machinery *or* Dangerous Goods in Apparatus,'' UN3363, is revised by adding quantity limits for transportation by aircraft. The quantity limits are specified in new Special Provision A105.

23. The entry ''Ethyltrichlorosilane,'' UN1196, PG II, is revised by removing the reference to § 173.150 ''Exceptions for Class 3 (flammable) and combustible liquids'' in Column (8A).

24. The entry ''Formic acid,'' UN1779, is revised to read ''Formic acid *with more than 85% acid by mass,*'' and the Class 3 subsidiary hazard is added in Column (6). This revision appears as a ''Remove/Add'' in this rulemaking.

25. A new entry, ''Formic acid *with not less than 10% but not more than 85% acid by mass,*'' UN3412, is added.

26. A new entry, ''Formic acid *with not less than 5% but less than 10% acid by mass,*'' UN3412, is added.

27. A new entry, ''Fuel cell cartridges *containing flammable liquids,*'' UN3473, is added.

28. The entry ''Hydrazine aqueous solutions, *with more than 37% hydrazine, by mass,*'' UN2030, PG I, is revised by removing Special Provision 151. Special Provision 151 specifies that if this material meets the definition of a flammable liquid in § 173.120 of the HMR, a FLAMMABLE LIQUID label is required and the basic description on the shipping paper must indicate the Class 3 subsidiary hazard. Changes to the Fourteenth revised edition of the UN Recommendations removed this requirement. Shipping paper and labeling requirements for materials with subsidiary hazards are addressed in §§ 172.202 and 172.402, respectively.

28a. The entry ''Hydrogen in a metal hydride storage system,'' UN3468, is revised by amending Column (9B) to authorize 100 kg gross.

29. The entry ''Hydrogen peroxide and peroxyacetic acid mixtures, stabilized *with acids, water, and not more than 5 percent peroxyacetic acid,*'' UN3149, is revised by adding Special Provision IP5. When this material is transported in an IBC, Special Provision IP5 specifies the IBC must have a device to allow venting.

30. The entry ''Hydrogen peroxide, aqueous solutions *with more than 40 percent but not more than 60 percent hydrogen peroxide (stabilized as necessary),*'' UN2014, is revised by adding Special Provision IP5. When this material is transported in an IBC, Special Provision IP5 specifies the IBC must have a device to allow venting.

31. The entry ''Hydrogen peroxide, aqueous solutions *with not less than 20 percent but not more than 40 percent hydrogen peroxide (stabilized as necessary),*'' UN2014, is revised by adding Special Provision IP5. When this material is transported in an IBC, Special Provision IP5 specifies the IBC must have a device to allow venting.

32. The entry ''Hydrogen peroxide, aqueous solutions *with not less than 8 percent but less than 20 percent hydrogen peroxide (stabilized as necessary),*'' UN2984, is revised by adding Special Provision IP5. When this material is transported in an IBC, Special Provision IP5 specifies the IBC must have a device to allow venting.

33. The entry ''Hydrogen peroxide, stabilized *or* Hydrogen peroxide aqueous solutions, stabilized *with more than 60 percent hydrogen peroxide,*'' UN2015, is revised by removing Special Provision T10 and adding Special Provision T9. When this material is transported in a UN portable tank, Special Provision T10 requires the UN portable tank pressure relief device to comply with the requirements specified in § 178.275(g)(3) of the HMR. The addition of Special Provision T9 removes this requirement.

34. For the entry ''Hydrogen-difluorides, n.o.s.,'' UN1740, PG II and III, the proper shipping name is revised to read ''Hydrogendifluorides, solid, n.o.s.'' This revision appears as a ''Remove/Add'' in this rulemaking.

35. A new entry ''Hydrogendifluorides, solution, n.o.s.,'' UN3471, PG II and III, is added.

36. The entry ''Hydroquinone, solid,'' UN2662, is removed.

37. The entry ''Hydroquinone solution,'' UN3435, is removed.

38. The entry ''Hypochlorite solutions,'' UN1791, PG II, is revised by adding Special Provision IP5. When this material is transported in an IBC, Special Provision IP5 specifies the IBC must have a device to allow venting.

39. For the entry ''Lead phosphite, dibasic,'' UN2989, PG II, the quantity limitations in Columns (9A) and (9B) are revised to read 15 kg and 50 kg, respectively.

40. For the entry ''Lead phosphite, dibasic,'' UN2989, PG III, the quantity limitations in Columns (9A) and (9B) are revised to read 25 kg and 100 kg, respectively.

41. The entry ''Methylphenyl dichlorosilane,'' UN2437, PG II, is revised by removing the reference to § 173.154 ''Exceptions for Class 8 (corrosive materials)'' in Column (8A).

42. The entry ''Motor fuel anti-knock mixtures,'' UN1649, is corrected by removing the subsidiary hazard label requirement in Column (6).

42a. A new entry ''Nitric acid *other than red fuming, with not more than 20 percent nitric acid,*'' UN2031, PG II, is added.

42b. The entry ''Organoarsenic compound, liquid, n.o.s.,'' UN3280, PG I, II, and III, is corrected by inserting the symbol ''G'' in Column (1).

43. The entry ''Organometallic substance, solid, pyrophoric,'' UN3391, PG I, is revised by correcting the Column (8B) Non-bulk packaging entry ''181'' to read ''187.''

44. The entry ''Organometallic substance, solid, pyrophoric, water-reactive,'' UN3393, PG I, is revised by correcting the Column (8B) Non-bulk packaging entry ''181'' to read ''187.''

45. A new entry, ''Paint, corrosive, flammable (*including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base*),'' UN3470, PG II, is added.

46. A new entry ''Paint, flammable, corrosive (*including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base*),'' UN3469, PG I, II, and III, is added.

47. The entry ''Paint *including paint, lacquer, enamel, stain, shellac solutions, varnish, polish, liquid filler and liquid lacquer base,*'' UN1263, is revised by adding the following Special Provisions to the PG I, II, and III entries, respectively:

—TP27 to specify that when this material is transported in an IM or UN Specification portable tank, a portable tank having a minimum test pressure of 4 bar (400 kPa) may be used provided the calculated test pressure is 4 bar or less based on the maximum allowable working pressure of the material, as defined in § 178.275 of the HMR, where the test pressure is 1.5 times the maximum allowable working pressure.

—TP28 to specify that when this material is transported in an IM or UN Specification portable tank, a portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the maximum allowable working pressure of the material, as defined in § 178.275 of the HMR, where the test pressure is 1.5 times the maximum allowable working pressure.

—TP29 to specify that when this material is transported in an IM or UN Specification portable tank, a portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the maximum allowable working pressure of the material, as defined in § 178.275 of the HMR, where the test pressure is 1.5 times the maximum allowable working pressure.

48. The entry ''Paint *or* Paint related materials,'' UN3066, is revised by adding the following Special Provisions to the PG II and III entries, respectively:

—TP28 to specify that when this material is transported in an IM or UN Specification portable tank, a portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the maximum allowable working pressure of the material, as defined in § 178.275 of the HMR, where the test pressure is 1.5 times the maximum allowable working pressure.

—TP29 to specify that when this material is transported in an IM or UN Specification portable tank, a portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the maximum allowable working pressure of the material, as defined in § 178.275 of the HMR, where the test pressure is 1.5 times the maximum allowable working pressure.

49. A new entry, ''Paint related material, corrosive, flammable (*including paint thinning or reducing compound*),'' UN3470, PG II, is added.

50. A new entry, ''Paint related material, flammable, corrosive (*including paint thinning or reducing compound*),'' UN3469, PG I, II, and III is added.

51. The entry ''Paint related material *including paint thinning, drying, removing, or reducing compound,*'' UN1263, is revised by adding the following Special Provisions to the PG I, II, and III entries, respectively:

—TP27 to specify that when this material is transported in an IM or UN Specification portable tank, a portable tank having a minimum test pressure of 4 bar (400 kPa) may be used provided the calculated test pressure is 4 bar or less based on the maximum allowable working pressure of the material, as defined in § 178.275 of the HMR, where the test pressure is 1.5 times the maximum allowable working pressure.

—TP28 to specify that when this material is transported in an IM or UN Specification portable tank, a portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the maximum allowable working pressure of the material, as defined in § 178.275 of the HMR, where the test pressure is 1.5 times the maximum allowable working pressure.

—TP29 to specify that when this material is transported in an IM or UN Specification portable tank, a portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the maximum allowable working pressure of the material, as defined in § 178.275 of the HMR, where the test pressure is 1.5 times the maximum allowable working pressure.

52. The entry ''Plastic molding compound *in dough, sheet or extruded rope form evolving flammable vapor,* UN3314, PG III, is revised by removing Vessel stowage location A and adding location E in Column (10A), and by removing Vessel stowage provision 85 and adding Vessel stowage provisions 19, 21, 25 and new Vessel stowage provision 144 in Column (10B).

53. The entry ''Polymeric beads, expandable, *evolving flammable vapor,* UN2211, PG III, is revised by removing stowage location A and adding location E in Column (10A), and by removing Vessel stowage provision 85 and adding Vessel stowage provisions 19, 21, 25 and new Vessel stowage provision 144 in Column (10B).

54. For the entry ''Propionic acid,'' UN1848, the proper shipping name is revised to read, ''Propionic acid *with not less than 10% and less than 90% acid by mass.*'' This revision appears as a ''Remove/Add'' in this rulemaking.

55. A new entry, ''Propionic acid *with not less than 90% acid by mass*,'' UN3463, is added.

56. The entry ''Rare gases mixtures, compressed,'' UN1979, is removed.

57. The entry ''Rare gases and oxygen mixtures, compressed,'' UN1980, is removed.

58. The entry ''Rare gases and nitrogen mixtures, compressed,'' UN1981, is removed.

59. The proper shipping name ''Regulated medical waste,'' UN3291, is removed and a new proper shipping name ''Regulated medical waste, n.o.s. *or* Clinical waste unspecified, n.o.s. *or* (BIO) Medical waste, n.o.s.,'' UN3291, is added in its place.

60. For the international entry for ''Sulfur,'' UN1350, the quantity limitations in Columns (9A) and (9B) are revised to read 25 kg and 100 kg, respectively.

61. The entry ''Trimethylchlorosilane,'' UN1298, PG II, is revised by removing the reference to § 173.150 ''Exceptions for Class 3 (flammable) and combustible liquids'' in Column (8A).

Also, *see* § 172.102 for additional HMT amendments.

Appendix B to § 172.101

Appendix B to § 172.101 lists Marine Pollutants regulated under the HMR. For the entry ''Copper chloride'' we are adding the designation ''PP'' to indicate that copper chloride is a severe marine pollutant. We are also correcting an oversight by removing the entries ''Alcohol C–13—C–15 poly (1–6) ethoxylate'' and ''1,2-Dichlorobenzene.'' Removal of the entry ''Alcohol C–13—C–15 poly (1–6) ethoxylate'' was overlooked in a final rule published December 20, 2004 under Docket HM–215G (69 *FR* 76044) and removal of the entry ''1,2-Dichlorobenzene'' was overlooked in a final rule published June 21, 2001 under Docket HM–215D (66 *FR* 33316).

Section 172.102

Section 172.102 lists a number of special provisions applicable to the transportation of specific hazardous materials. Special provisions contain packaging provisions, prohibitions, and exceptions applicable to particular quantities or forms of hazardous materials. We did not receive comments opposing the revisions proposed in the NPRM; therefore, in this final rule for consistency with international standards, we are amending § 172.102 Special provisions, as follows:

- Special Provision 15 specifies the types of materials and packaging requirements for chemical kits and first aid kits. We are revising Special Provision 15 to list examples that may be described as ''Chemical kits'' and ''First aid kits.''
- Special Provision 47 specifies requirements for mixtures of non-hazardous solids and flammable liquids. In accordance with the UN Recommendations, Special Provision 47 is revised to specify that, in addition to sealed packets, articles containing less than 10 mL of a Class 3 Packing Group

II or III liquid absorbed into a solid material are excepted from the HMR provided there is no free liquid in the packet or article.

• Special Provision 77 applies to use of the Division 5.1 subsidiary risk label. We are revising this special provision for consistency with the wording in the UN Recommendations. As a result, Special Provision 77 will no longer apply only to ''domestic transportation.'' Further, we are clarifying that a Division 5.1 label is not required for mixtures containing not more than 23.5% oxygen by volume. Also, the provision is assigned to the entry ''Compressed gas, n.o.s.,'' UN1956, which is the most appropriate description for mixtures currently described as ''Carbon dioxide and oxygen mixtures, compressed.'' In this final rule, we are removing the entry for ''Carbon dioxide and oxygen mixtures, compressed.''

• Special Provision 146 is amended to authorize the domestic classification of a material as environmentally hazardous if it is designated as such by a foreign competent authority. The provision as currently worded only allows such classification for international shipments. Due to current differences in criteria for the classification of environmentally substances world-wide, we believe the amended provision will afford additional flexibility to industry and reduce shipping costs by allowing both domestic and international shipments to be treated identically. Although generally the HMR do not authorize materials not meeting the definition of a hazardous material to be transported as regulated materials, due to the low risk posed by these materials, and the fact that the HMR already authorize domestic movement in association with international air and vessel transport, we believe this change will not result in a significant impact other than to lower costs for our stakeholders.

• Special Provision 147 applies to non-sensitized emulsions, suspensions and gels consisting primarily of a mixture of ammonium nitrate and fuel, intended to produce a Type E blasting explosive only after further processing prior to use. In accordance with the UN Recommendations, this special provision is revised to specify the composition of mixtures for suspensions and gels and to specify these substances be tested in accordance with Test Series 8 of the UN Manual of Tests and Criteria.

• Special Provision 166 authorizes non-friable, tablet form calcium hypochlorite, dry or hydrated, to be transported as a Packing Group III material. In accordance with the UN Recommendations, we are revising Special Provision 166 to remove the authorization for ''hydrated'' non-friable tablet forms of calcium hypochlorite to be transported as a PG III material.

• A new Special Provision 175 is added to require stabilization for certain substances when transported in concentrations of not more than 99%.

• Special Provision 101 is removed. This special provision required the name of the particular substance or article to be specified. With the introduction of the letter ''G'' in Column (1), which requires the n.o.s. and generic proper shipping names to be supplemented with the technical name of the hazardous material, Special Provision 101 became obsolete.

• A new Special Provision A105 is added to specify the quantity of hazardous materials allowed in equipment or apparatus.

Section 172.202

Shipping Description Sequence

Section 172.202 establishes requirements for shipping descriptions on shipping papers. Currently, the basic description of a hazardous material consists of the proper shipping name, hazard class, ID number and packing group, in that order. The HMR also authorize an alternative description sequence, which lists the identification number first, followed by the proper shipping name, hazard class, and packing group. Beginning January 1, 2007, the alternative shipping description sequence will be mandatory on shipping documents prepared in accordance with the ICAO Technical Instructions and the IMDG Code. In the NPRM, we proposed to adopt the current, alternative shipping description sequence as the mandatory basic description of a hazardous material on a shipping paper. We also proposed a two-year transition period to allow offerors adequate time to convert to the new shipping description sequence.

A total of 19 commenters addressed this proposal. Eight commenters [NPCA, AP&C, ATA, GPS, LabCorp, NTTC, UPS, and VHOMA] support the proposal. NPCA notes that many of its members have already implemented this change to simplify internal shipping processes.

Eleven commenters [Adamo; AllChem; Botteri; Eisenhofer; ISSA, J&S; NACD; NATC; RST; and two unidentified commenters] oppose this proposal, suggesting that the change is not necessary, lacks an economic justification, and will have a negative impact on safety. These commenters note that, because the current regulations allow the international sequence as an alternative, the proposed change merely removes the existing sequence with no positive safety rationale. These commenters further assert that the proposed change could result in significant cost impacts to companies that utilize computer systems for the preparation of shipping documents and to track associated packaging and training requirements. According to these commenters, potential costs could include database reorganization, employee training, and related revisions to product labels that also include shipping information. Commenters suggest that costs could also result from confusion on the part of enforcement and inspection personnel that could lengthen inspections and delay shipments. These commenters are also concerned that the proposed revision could have a negative impact on safety because it could result in confusion for emergency response personnel, most of whom are volunteers and receive limited training. Commenters note that confusing emergency response information could expose emergency responders to unnecessary danger.

PHMSA does not believe this proposal is unnecessary or will adversely impact transportation safety. A uniform system for describing and identifying hazardous materials on shipping papers, as proposed in this NPRM, will increase safety by helping to eliminate potential indecision and confusion during emergency situations. For example, when incidents occur during transportation, it is crucial to promptly identify packages of hazardous materials present in a given shipment. Emergency responders at the scene of an incident would use a standard description of hazardous materials on shipping papers to quickly determine that they have accounted for all hazardous materials in both domestically- and internationally-bound packages. In addition, following the release of a hazardous material, it is vital for emergency responders to quickly identify the hazardous materials to facilitate their emergency response decision-making. A standardized shipping description for both domestic and international shipments will aid in this process and will lead to a potential reduction in the loss of life and property.

PHMSA analyzes potential cost impacts of proposed regulations on the regulated community. Our justification regarding this proposal in the Regulatory Evaluation is located under the Docket Management System (*http://dms.dot.gov*). In the Regulatory

Evaluation, we determined that this NPRM, including this specific proposal, should result in cost savings by easing the regulatory compliance burden for shippers and carriers engaged in international commerce, including trans-border shipments within North America. In addition, shippers and carriers will not need to revise shipping papers to address differing domestic and international requirements for shipping descriptions. We acknowledge the proposal to require one basic description of a hazardous material on a shipping paper will necessitate additional training and software revisions. However, to allow for the training of hazmat employees and to ease the minimal burden on entities affected by the adoption of the proposed amendments, we are authorizing an extended transition period. An extended transition period will allow businesses to incorporate this requirement into their training material for both new and current hazardous materials employees, and to upgrade system software over the course of normal computer upgrades and revisions with a minimal economic impact.

The NPRM proposed a two-year transition period to allow shippers sufficient time to convert to the new shipping description sequence. Three commenters [NTTC, ATA, and VOHMA] suggest the proposed transition period is unnecessary and recommend a one-year transition. These commenters state that the industry is able to alter current software systems and deplete pre-printed shipping paper inventory within a relatively short time period. VOHMA asserts lengthy transition periods create confusion and increased training burdens. Six commenters [ATA; GPS; LabCorp; NTTC; UPS; VOHMA] state that the proposed transition period is too short, recommending up to six years to permit shippers to convert to the new sequence. These commenters suggest a longer transition period would allow the new shipping sequence to be incorporated into responder training programs and the next revision of the Emergency Response Guidebook (ERG). The ERG lists hazardous materials in numerical order of ID number and in alphabetical order of material name.

We understand commenters' concerns regarding the length of the transition period for this proposal. However, it is our intention to specify a uniform method to describe a hazardous material on a shipping paper in order to promote the universal recognition of hazardous materials, while allowing sufficient time for affected parties to properly train personnel, reconfigure internal computer systems, and deplete existing stock. We do not believe a time period less than six years would allow businesses to adequately accomplish these objectives. Moreover, a six-year transition period would allow for the incorporation of this requirement into the initial and recurrent training cycle for hazardous materials employees and emergency responders.

Therefore, for the reasons described above, in this final rule, we are adopting the requirement that the shipping description of a hazardous material be indicated on a shipping paper in the following manner: Identification (ID) number listed first, followed by the proper shipping name, hazard class, and packing group. In addition, we are authorizing a six-year transition period to implement this requirement.

Quantity Limitations

The description of a hazardous material on a shipping paper must include the total quantity of hazardous material (by mass or volume) covered by the description (see § 172.202(a)(5)). The majority of quantity limitations set forth for transportation by aircraft, in Columns (9A) and (9B), are ''net'' quantities. Section 175.75 limits the quantity of hazardous materials, expressed in net mass, aboard an aircraft. To facilitate compliance with the aircraft operator's requirements, in the NPRM we proposed that, for transportation by aircraft, the total quantity per package be shown, expressed as net mass, except as otherwise specified. For example:

UN1263, Paint, 3, PG II, 5 fiberboard boxes x 5 L each

As proposed, different size packages containing different quantities of the same hazardous material must be clearly identified. For example:

UN1263, Paint, 3, PG II, 5 fiberboard boxes x 5 L, 6 fiberboard boxes x 10 L

As proposed, where the letter ''G'' follows the quantity in Column (9A) or (9B), the gross mass rather than the net quantity must be indicated.

A commenter [DGAC] opposes the proposal to require the quantity of a hazardous materials shipment by aircraft to be expressed as a net quantity per package. The commenter questions the safety benefit of adopting the requirement and states that the costs to industry associated with the change, such as computer software upgrades, may be substantial. The commenter did not provide data to support this argument. We disagree that there is no safety benefit in expressing the quantity of hazardous material in terms of ''net quantity'' for air shipments. Quantity limitations aboard aircraft, as prescribed in § 175.75, are specified in the HMR as net quantities; thus, an indication of the net quantity per package on shipping papers facilitates load planning and compliance. We do not believe the cost of indicating net quantity rather than total quantity, as previously required, is increased substantially. Therefore, in this final rule, we are adopting the amendment as proposed.

In the NPRM, we also proposed the following additional requirements:

—For empty uncleaned packaging, only the number and type of packaging must be shown;
—For chemical kits and first aid kits, the total net mass of hazardous materials must be shown. Where a kit contains solids and/or liquids, the net mass of liquids within the kit is to be calculated on a 1 to 1 basis, i.e., 1 liter equals 1 kilogram;
—For dangerous goods in machinery or apparatus, the individual total quantities of dangerous goods in solid, liquid or gaseous state, contained in the article must be shown;
—For dangerous goods transported in a salvage packaging, an estimate of the quantity of dangerous goods per package must be shown;
—For cylinders, the total quantity may be indicated by the number of cylinders, for example, ''10 cylinders;''
—For items where ''No Limit'' is shown in Column (9A) or (9B) of the HMT, the quantity shown should be the net mass or volume of the material, except for UN2800, UN2807, UN3072, UN3166 and UN3173, where the quantity should be the gross mass of the article.

On the proposal to identify the total quantity of each hazardous material in machinery or apparatus, a commenter [UPS] states that the ''precision implied in this proposal is unrealistic.'' UPS suggests that, absent a precise quantity, a shipper should be permitted to estimate the quantity of hazardous material. We agree and are amending paragraph (a)(6)(iii) accordingly.

Another commenter [Laude] requests we include net quantity provisions for Class 7 materials transported by aircraft. Similar provisions for transportation by other modes are contained in paragraph (a)(5). We agree with the commenter and are amending paragraph (a)(6) accordingly.

The same commenter points out that in proposed paragraph (a)(6)(vi) ID numbers UN2807 and UN3173 do not exist in the HMT; (ID number UN2807 is assigned to ''magnetized material'' in the ICAO Technical Instructions). We are removing UN2807 and UN3173 in this final rule.

Section 172.312

Section 172.312 addresses marking requirements for liquid hazardous materials in non-bulk packagings. Specifically, the packaging must be marked with orientation arrows to indicate how the package should be oriented during transportation; the arrows indicate which end of the package is ''up.'' Currently the HMR require orientation markings only on a non-bulk combination package with inner packagings that contain a liquid hazardous material, unless specifically excepted.

We proposed to amend paragraph (a) by requiring orientation markings on single packagings fitted with vents and on open cryogenic receptacles intended for the transport of refrigerated liquefied gases. We received one comment [AP&C] supporting the proposal and, in this final rule, are adopting the amendment as proposed.

Also, we proposed to require the size of the marking to be proportioned so that it is clearly visible in relation to the size of the package, and the color of the arrows to be either black or red on a suitable contrasting background. One commenter [AP&C] supports the proposal requiring the size of the marking to be proportionate with the size of the package. Several commenters [NATC; Botteri; Eisenhofer; Adamo; NACD; J&S; RST; AllChem; UC1; UC2] question the meaning of the phrase ''clearly visible'' and suggest we specify the size of the marking; either by requiring the marking to be at least equal to the size of the largest package marking or, at a minimum, requiring the marking to be ½ inch. We agree with commenters that the phrase ''clearly visible'' is vague; however, we disagree with specifying the size of the orientation marking. The HMR currently require non-bulk packages containing liquid hazardous materials to be ''legibly marked'' with the orientation marking. Specifying the size of the orientation marking would be inconsistent with the general marking requirements (proper shipping name and identification number) for non-bulk packagings which do not specify the size of the markings. In this final rule, we are removing the phrase ''clearly visible'' and requiring the orientation marking to be commensurate with the size of the package.

We also proposed adding a new paragraph (c)(7) to except Class 7 materials in Type A, IP–2, IP–3, Type B(U), or Type B(M) packages from the orientation marking requirement. We received no comments on this proposal and are adopting the amendment as proposed.

Sections 172.407 and 172.427

Section 172.407 establishes specifications for package labels. Section 172.427 establishes requirements for the ORGANIC PEROXIDE label. In accordance with the UN Recommendations, we proposed to revise the ORGANIC PEROXIDE label. The revised label would reflect the fact that organic peroxides are highly flammable and enable transport workers to readily distinguish peroxides from oxidizers. We also proposed to authorize labels meeting the specifications in effect on December 31, 2006, to continue to be displayed until January 1, 2011 (see § 171.14). This would eliminate the current requirement in § 172.402 for a package containing an organic peroxide to bear a FLAMMABLE LIQUID subsidiary label in addition to the ORGANIC PEROXIDE primary hazard class label.

We received no comments opposing the proposal to revise the ORGANIC PEROXIDE label; therefore, in this final rule we are adopting the revisions as proposed.

Section 172.552

Section 172.552 establishes specific requirements for the ORGANIC PEROXIDE placard. In accordance with the UN Recommendations, in paragraph (b), we proposed to revise the ORGANIC PEROXIDE placard. The revised placard would reflect the fact that organic peroxides are highly flammable and enable transport workers to readily distinguish peroxides from oxidizers. We proposed to authorize placards meeting the specifications in effect on December 31, 2006, to continue to be displayed until January 1, 2011 (see § 171.14).

We received one comment [ATA] supporting the revised placard design; however, ATA disagrees with the length of the proposed transition period. The ATA requests a seven-year transition period until January 1, 2014. The ATA states that trucking companies with large fleets use dual metal flip placards on each side of the trailer. According to the ATA, trailer fleets are generally refurbished every seven years. This would allow companies to replace the ORGANIC PEROXIDE placard at the time of refurbishment. Based on this comment, in this final rule, we are authorizing ORGANIC PEROXIDE placards meeting the specifications in effect on December 31, 2006, to continue to be displayed until January 1, 2014 for transportation by highway and until January 1, 2011 for transportation by rail, vessel or aircraft.

Part 173

Section 173.9

Section 173.9 sets forth requirements for transporting cargo that has been fumigated or is undergoing fumigation. Such shipments must have a FUMIGANT marking. As specified in this section, the FUMIGANT marking includes an indication of the material used for fumigation and the date and time the fumigant was applied. Currently, transport vehicles or freight containers containing fumigated cargoes are not required to show the date the fumigated transport vehicle or freight container was ventilated to remove harmful concentrations of fumigant gas. To minimize the possibility of an individual entering a fumigated transport vehicle or freight container prematurely, in the NPRM we proposed to require the FUMIGANT marking to include the date of ventilation. We also proposed to revise the specifications for the FUMIGANT marking to allow either red or black marking on a white background. No commenters opposed these proposals, therefore, we are adopting them without change in this final rule.

Sections 173.35, 173.120, 173.121, and Appendix H to Part 173

Section 173.35 sets forth requirements for transporting hazardous materials in intermediate bulk containers (IBCs); § 173.120 establishes classification criteria for flammable liquid (Class 3) materials; § 173.121 addresses packing group assignments for Class 3 materials; and Appendix H to Part 173 sets forth methods to test a material to determine its combustibility. In the NPRM, we proposed to revise all of these sections to reflect the new upper limit of 60 °C (140 °F) for a PG III flammable liquid. This is consistent with recent changes to the classification of flammable liquids based on the GHS and adoption into the UN Recommendations. PHMSA also proposed to authorize a five-year transition period.

A commenter [DGAC] appreciates the length of the proposed transition period. DGAC urges PHMSA to propose a similar transition period for the criteria in international regulations. Modifications to the international standards are outside the scope of this rulemaking. International shippers should be aware of this disparity and take appropriate action. In this final rule, we are adopting the amendment as proposed.

Section 173.115

The HMR define a Division 2.2 non-flammable gas as any material or mixture that ''exerts in the packaging an absolute pressure of 280 kPa (40.6 psia) or greater at 20 °C (68 °F), * * *.'' In paragraph (b)(1), we proposed to add the phrase ''or is a cryogenic liquid,'' to clarify that a cryogenic liquid, whether or not it meets the definition of a Division 2.2 non-flammable gas, is subject to the HMR. This is consistent with the current requirements for cryogenic liquids in § 173.115(g). We received no comments opposing this proposal; therefore, in this final rule, we are adopting the proposal without change.

Currently, paragraph (k)(5) of this section requires aerosols containing Class 8, PG III materials to be assigned a Class 8 subsidiary hazard. In the NPRM, we proposed to amend paragraph (k)(5) to specify that aerosols containing Class 8, PG II or PG III materials must be assigned a Class 8 subsidiary hazard. We received no comments opposing this proposal; therefore, in this final rule, we are adopting the proposal without change.

Section 173.124

Section 173.124 establishes classification criteria for Division 4.1 (flammable solid), Division 4.2 (spontaneously combustible), and Division 4.3 (dangerous when wet) materials. In the NPRM, we proposed to revise § 173.124 by adding a new paragraph (a)(2)(i)(D)(*3*) to require mixtures of oxidizing substances containing 5.0% or more combustible organic substances to be subject to the self-reactive substance classification procedure. This will ensure that oxidizing substances containing 5.0% or more of combustible organic substances are also tested for their ability to self-react and to ensure that in such instances, these substances are appropriately classed for their self-reactive hazard. We received no comments on this proposal; it is adopted without change in this final rule.

Section 173.133

Section 173.133 establishes criteria for assignment of packing groups to poisonous (Division 6.1) materials. We proposed to amend the toxicity criteria for consistency with the toxicity criteria adopted in the UN Recommendations on the basis of the limits established in the GHS. As a result, some materials that were not previously regulated under the HMR would now be regulated as Division 6.1, Packing Group III; some materials currently regulated as Division 6.1, Packing Group I or II are assigned to a different packing group; and some materials that were previously regulated as Division 6.1, Packing Group III would no longer be subject to regulation under the HMR. PHMSA also proposed a five-year transition period.

The effect of these proposed changes to packing group assignments for Division 6.1 materials is summarized as follows:

Material properties	Current PG assignment	New PG assignment
Oral LD_{50} > 200, ≤ 300 (Solid)	Not regulated	III
Oral LD_{50} > 300, ≤ 500 (Liquid)	III	Not regulated.
Dermal LD_{50} > 40, ≤ 50	II	I
Inhalation toxicity by dusts and mists LC_{50} > 0.2, ≤ 0.5	I	II
Inhalation toxicity by dusts and mists LC_{50} > 4, ≤ 10	III	Not regulated.

Thirteen commenters [NATC; Botteri; Eisenhofer; Adamo; J&S; RST; AP&C; AllChem; Arkema; UC1; UC2; NACD; DGAC] support adoption of this proposal. Arkema notes that the amended criteria may result in reclassification of certain materials that are listed by name in the HMT. The commenter requests that the HMR be amended to allow the use of currently listed names instead of describing the material under an appropriate generic (n.o.s.) name based on the new toxicity criteria. The commenter also states Arkema, an international company, will review its materials to ensure they are in compliance with the provisions of the 2008 IMDG Code, and will handle air shipments on a case-by-case basis. PHMSA does not intend to provide such an allowance in the HMR; we believe such a provision could be confusing and would be inconsistent with the international regulations. However, we invite submission of data supporting reclassification of certain materials resulting from the revised criteria for toxic materials. Such data could be used to effect change in the listing of a material within the HMR and the UN Model Regulations.

A commenter [DGAC] appreciates the length of the proposed transition period. DGAC urges PHMSA to propose a similar transition period for the criteria in international regulations. Changes to the international standards are outside the scope of this rulemaking. International shippers should be aware of this disparity and take appropriate action.

Finally, ten commenters [NATC; Botteri; Eisenhofer; Adamo; J&S; RST; AllChem; UC1; UC2; NACD] request a five-year transition period and a grandfather clause to allow packages filled prior to a specific date to remain marked without modification for domestic transportation. In the NPRM, we proposed a five-year transition period and in this final rule, we are adopting the amendment as proposed (see § 171.14). We disagree with the request to allow packages filled prior to a specific date to remain marked without modification for domestic transportation. We believe that a five-year transition provides adequate time to transition to the new classification criteria and to ensure that packages marked based on regulations in effect on December 31, 2006, are out of the transportation stream. Therefore, we are not adopting a grandfather clause.

Sections 173.134 and 173.197

Consistent with the proposals in the NPRM, in this final rule, these sections are revised by replacing the wording ''Regulated medical waste'' with the wording ''Regulated medical waste or clinical waste or (bio) medical waste.'' No commenters addressed this issue.

Section 173.136

Currently, the HMR define ''corrosive material'' to mean ''a liquid or solid that causes full thickness destruction of human skin at the site of contact within a specified period of time. A liquid that has a severe corrosion rate on steel or aluminum based on the criteria in § 173.137(c)(2) is also a corrosive material.'' Certain solids with a low melting point may become liquid during transportation, and others may be intentionally heated above their melting point and transported as a liquid in the molten state. We believe the Class 8 definition should apply equally to liquids and to solids offered for transportation or transported in a liquid state. In the NPRM, we proposed to revise the definition of a ''corrosive

material'' to include a solid material that is offered for transportation or transported as a liquid and has a severe corrosion rate on steel or aluminum. A commenter [Degussa] requests that we align the definition with the UN Recommendations. We agree and are modifying the definition of ''corrosive material'' to include the phrase ''solids that may become liquid during transportation.'' Also, we are removing the grandfather provision in § 173.136(d) on the basis that it is no longer necessary because tests other than the one specified in the UN Manual of Tests and Criteria will be authorized. See the § 173.137 preamble discussion below.

Section 173.137

Section 173.137 establishes packing group criteria for corrosive (Class 8) materials. In a final rule published December 20, 2004 under Docket HM–215G (69 *FR* 76155), we revised the language in paragraph (c)(2) mandating the corrosion test in the UN Manual of Tests and Criteria as the only acceptable test method for determining the corrosivity of a material. That was not our intent. In the NPRM, we proposed to revise paragraph (c)(2) to specify that corrosivity may be determined in accordance with methods described in the UN Manual of Tests and Criteria, as well as other equivalent methods, such as those described in ASTM G 31–72. No commenters addressed this proposal; it is adopted without change in this final rule.

Section 173.159

Section 173.159 establishes transportation requirements for wet electric storage batteries. For consistency with the ICAO Technical Instructions, in the NPRM we proposed to revise paragraphs (a), (c)(1), (c)(2), (c)(4), (c)(5), (d)(1) and (e)(2) to clarify that batteries may be protected against short circuits by the use of non-conductive caps that cover the entire terminal(s). No commenters addressed this proposal; therefore, we are adopting it without change in this final rule.

Section 173.166

Section 173.166 establishes transportation requirements for air bag inflators, air bag modules, and seat-belt pretensioners. Currently, paragraph (d)(1) excepts from the HMR air bag modules and seat-belt pretensioners approved by the Associate Administrator and installed in a motor vehicle or a completed motor vehicle component. In the NPRM, we proposed to revise paragraph (d)(1) to expand the exception to include air bag modules and seat-belt pretensioners installed in other means of conveyances, such as boats and aircraft, or their components. We received no comments on this proposal; therefore, we are adopting it without change in this final rule.

Section 173.187

Section 173.187 establishes transportation requirements for pyrophoric solids, metals, or alloys, not otherwise specified (n.o.s.). In the NPRM, we proposed to revise this section for clarity and to correct an oversight by adding 4A steel boxes to the list of authorized packagings for pyrophoric solids, metals or alloys, n.o.s. We received no comments on this proposal; it is adopted without change in this final rule.

Section 173.216

Section 173.216 establishes transportation requirements for blue, brown, or white asbestos. Paragraph (c) of this section specifies packaging requirements for these materials. In the NPRM, we proposed to require bags or other non-rigid packages containing asbestos to be transported in rigid outer packages or closed freight containers. No commenters addressed this proposal; therefore, it is adopted without change in this final rule.

Section 173.220

Section 173.220 establishes transportation requirements for internal combustion engines, self-propelled vehicles, mechanical equipment containing internal combustion engines, and battery powered vehicles and equipment. For transportation by aircraft, the HMR impose a pressure limit of not more than 5% of the maximum allowable working pressure in any part of the system between the pressure receptacle and the shut off valve of a flammable gas powered vehicle. In the NPRM, we proposed to revise paragraph (b)(2)(ii)(B)(*3*) to specify that the pressure limit imposed applies to the entire closed system and that the maximum pressure allowed is 290 psig (2000 kPa). Also, consistent with the ICAO Technical Instructions, we proposed to revise paragraphs (c) and (d) to clarify that batteries may be protected against short circuits by the use of non-conductive caps that cover the entire terminal(s). We received no comments on these proposals; therefore, we are adopting them without change in this final rule.

Section 173.222

This section establishes requirements for hazardous materials in equipment, machinery and apparatus. Because of the addition of Special Provision A105 in the HMT, the shipping paper requirements in paragraph (d) no longer apply to transportation by aircraft. In the NPRM, we proposed to revise paragraph (d) accordingly. No commenters addressed this proposal, and it is adopted without change in this final rule.

A commenter [Laude] requests we remove the phrase ''equipment'' in this section. The phrase ''equipment'' is not part of the proper shipping name ''Dangerous Goods in Machinery *or* Dangerous Goods in Apparatus'' in the HMT. Therefore, we are editorially revising § 173.222 to remove the phrase ''equipment'' in the heading and regulatory text.

Section 173.224

Section 173.224 establishes packaging and control and emergency temperatures for self-reactive materials. The Self-Reactive Materials Table in paragraph (b)(7) of this section specifies self-reactive materials authorized for transportation without first being approved for transportation by the Associate Administrator for Hazardous Materials Safety and requirements for transporting these materials. In the NPRM, we proposed to add a new entry to ''Acetone-pyrogallol copolymer 2-diazo-1-naphthol-5-sulphonate'' to the Self-Reactive Materials Table. We received no comments on this proposal, and are adopting it without change in this final rule.

Section 173.230

In the NPRM, we proposed to add a new packaging section (§ 173.230) for the transportation of ''Fuel cell cartridges *containing flammable liquids*, UN3473,'' including methanol or methanol/water solutions. For consistency with the ICAO Technical Instructions, we proposed to require fuel cell cartridges containing flammable liquids, other than those packaged with equipment, to be packaged in specification packagings for all modes of transportation. Fuel cell cartridges packaged in or with equipment must be packaged in strong outer packagings.

A commenter [HMT] suggests we add a special provision to the entry ''Fuel cell cartridges containing flammable liquids'' in the HMT that would allow fuel cell cartridges to be considered the inner packaging of a combination packaging so that shippers can take advantage of the limited quantity provisions for flammable liquids in § 173.150. We do not believe that such a clarification is necessary. A fuel cell cartridge, shipped under the provisions

of § 173.150 as a limited quantity, may be considered the inner packaging provided all applicable requirements are met. The commenter also suggests we change the one liter net capacity limit to allow up to one liter volume of the flammable liquid itself. We do not agree. The net capacity of a fuel cell cartridge should be the capacity of the fuel cell cartridge containing the flammable liquid. This is consistent with the requirements for other flammable liquids shipped as a limited quantity in inner packagings or articles. Finally, the commenter recommends we authorize any rigid outer packaging conforming to the PG II performance level. We agree and are amending the requirements in paragraph (a)(2) accordingly.

Section 173.301

On August 29, 2006, the **Federal Register** published a final rule under Docket HM–220F (71 *FR* 51122)) establishing additional requalification requirements for cylinders manufactured of aluminum alloy 6351–T6. In § 173.301, we moved a sentence prohibiting the use of DOT 3AL cylinders manufactured of aluminum alloy 6351–T6 for transporting pyrophoric gases from paragraph (d) to a new paragraph (o). We revised the remaining requirement in paragraph (d). However, we inadvertently omitted a sentence prohibiting the use of aluminum alloy 6351–T6 for the manufacture of UN cylinders recently added in paragraph (d) under a final rule published June 12, 2006 under Docket HM–220E (71 *FR* 33858). In this final rule, we are correcting § 173.301(o) by reinserting the language prohibiting the use of UN cylinders manufactured of aluminum alloy 6351–T6.

Section 173.306

This section establishes transportation requirements for limited quantities of compressed gases. Paragraph (i) of this section excepts aerosols with capacities under 50 mL (1.7 oz) and pressures not exceeding 970 kPa (141 psig) at 55 °C (131 °F) from all HMR requirements. In the NPRM, we proposed to expand this exception to aerosols with capacities of less than 50 mL (1.7 oz) and pressures of up to 290 psig (2000 kPa) provided the packagings conform to the general packaging requirements of Subpart B of Part 173. The proposed amendment is not consistent with provisions of the UN Recommendations or the ICAO Technical Instructions, which do not limit the pressure within the aerosol or small receptacle. We are not convinced that aerosols should be excepted from all regulation when the pressure in the container exceeds 290 psig (2000 kPa). Because the exceptions in the UN Recommendations and ICAO Technical Instructions include an exception from shipping paper, package marking, and labeling requirements, a carrier might not be aware of the potential risks associated with higher pressure aerosols and small gas receptacles. In addition, to avoid confusion and further clarify the intent of this exception, in the NPRM we proposed to revise paragraph (i) to specify that the 50 mL exception for aerosols does not apply to self-defense sprays. It was not our intent to authorize the use of this exception for self-defense sprays. We received no comments on this proposal; it is adopted in this final rule.

Part 175

Section 175.10

Currently, safety matches or lighters carried on board an aircraft and intended for use by a passenger or crew member are excepted from the HMR. Consistent with the ICAO Technical Instructions, in the NPRM we proposed to revise paragraph (a)(2) to limit the number of safety matches that may be carried on one's person or in carry-on baggage by a passenger or crewmember to one packet. We received no comments on this issue; therefore, it is adopted without change in this final rule.

Section 175.78

Section 175.78 establishes requirements for stowing hazardous materials on an airplane. In the NPRM, we proposed to paragraph (c)(4) to clarify which explosive materials may be stowed together aboard an aircraft and to remove existing stowage references for explosive materials not authorized for transportation aboard aircraft under any circumstances. We received no comments on this issue; therefore, it is adopted without change in this final rule.

Part 176

Section 176.76

Section 176.76 establishes requirements for vessel transportation of transport vehicles, freight containers, and portable tanks containing hazardous materials. Paragraph (f) includes requirements for portable tanks containing flammable liquids or gases. Consistent with recent changes to the classification of flammable liquids based on the GHS and adopted into the UN Recommendations and discussed elsewhere in this preamble, in the NPRM we proposed to revise paragraph (f)(2) to specify the new upper limit for a PG III flammable liquid to be 60 °C (140 °F). We received no comments on this issue; therefore, it is adopted without change in this final rule.

Section 176.83

Section 176.83 establishes segregation requirements for hazardous materials transported by vessel. In the NPRM, we proposed to revise paragraph (a)(4) to identify materials of different hazard classes that do not react dangerously with each other and, therefore, do not need to be segregated. No commenters addressed this proposal; it is adopted without change in this final rule.

Section 176.84

Section 176.84 contains additional stowage and segregation requirements for hazardous materials on cargo and passenger vessels. Consistent with the 2004 Edition of the IMDG Code, incorporating Amendment 33–06, in the paragraph (b) Table of provisions, in the NPRM we proposed to add new Code ''144'' to the entries ''Plastic molding compound *in dough, sheet or extruded rope from evolving flammable vapor*,'' UN3314, and ''Polymeric beads expandable, *evolving flammable vapor*,'' UN2211. New Code ''144'' specifies these materials must be mechanically ventilated in accordance with SOLAS Chapter II–2/Regulation 19 for flammable liquids with a flashpoint below 23 °C (73 °F) when stowed under deck. No comments addressed this issue; it is adopted without change in this final rule.

Also, in the NPRM, we proposed to add a new note ''2'' following the Table. Note ''2'' provides an exception from the segregation requirements for Class 8, PG II and III materials, provided the substances do not react dangerously with one another and the quantities per package do not exceed 30 L (7.8 gallons) for liquids and 30 kg (66 lbs.) for solids. We also proposed to revise Codes ''26,'' ''27,'' ''52,'' and ''53'' to add the new Note ''2.''

One commenter [VOHMA] supports the proposal to add a new Note ''2,'' but suggests the following provision be added: ''The transport document must include the statement required by § 172.203(i)(5) and a copy of the test report that verifies that the substances do not react dangerously with each other shall be provided if requested by the competent authority.'' The commenter also recommends an additional shipping paper requirement under § 172.203 to indicate the utilization of this provision. The commenter bases its request on a need for consistency with the IMDG Code, and the need for verification to the carrier that the substances have been

tested and do not react dangerously with each other.

We acknowledge the commenter's recommendation that new Note ''2'' may require an accompanying statement on a transport document, such as a shipping paper, in order to adequately notify carriers of the use of this provision. We also acknowledge the commenter's suggestion that supporting documentation, such as a test report, should accompany shipments of these hazardous materials. Because these additional requirements were not proposed in the NPRM, they are beyond the scope of this rulemaking. However, we agree that carriers may need some notification of the use of this provision and will consider the issue in a future rulemaking.

In this final rule, we are adopting the proposal to add new Note ''2'' to the Segregation Table, and to revise Codes ''26,'' ''27,'' ''52,'' and ''53'' by adding the new Note ''2,'' as proposed in the NPRM. In addition, we are also adopting the proposal to add Code ''144'' to the entries ''Plastic molding compound *in dough, sheet or extruded rope from evolving flammable vapor*,'' UN3314, and ''Polymeric beads expandable, *evolving flammable vapor*,'' UN2211, to specify these materials must be mechanically ventilated in accordance with SOLAS regulation II–2/19 (IBR; see § 171.7 of this subchapter) for flammable liquids with a flashpoint below 23 °C (73 ° F) when stowed under deck. Finally, in paragraph (b), we are revising Provisions ''22,'' ''23,'' and ''109'' to reflect the new upper flammability limit for flammable liquids. Also see §§ 173.35, 173.120, 173.121 and Appendix H to Part 173 preamble text.

Part 178

Section 178.274

Section 178.274 establishes design, manufacturing, and test requirements for UN portable tanks. Currently, a prototype UN portable tank must be shown to be capable of absorbing the forces resulting from an impact not less than four times the maximum permissible gross weight of the fully loaded portable tank at a duration that is typical of the mechanical shocks experienced in rail transportation. Several standards describing methods acceptable for performing the impact test were previously listed in the UN Recommendations (6.7.3.15). The Fourth revised edition of the UN Manual of Tests and Criteria includes a dynamic longitudinal impact test for portable tanks. All procedures, test requirements, processing and analysis of data are found in Section 41 of Addendum 2 to the UN Manual of Tests and Criteria.

Consistent with the UN Recommendations, in the NPRM we proposed to revise paragraph (j)(6) to require each UN portable tank design type be subjected to a dynamic longitudinal impact test to prove the ability of the portable tank to withstand the effects of a longitudinal impact. The NPRM proposed an effective for the new requirement of January 1, 2008, and further proposed that UN portable tanks impact-tested prior to January 1, 2008, based on the criteria in effect on October 1, 2005, need not be retested. We received no comments on this proposal; we are adopting it without change in this final rule.

Section 178.602

Section 178.602 establishes requirements for the preparation of packagings for testing to ensure that the packaging conforms to the design requirements of the applicable specification. Currently, for the preparation of bags for the drop and stacking tests, paragraph (b) requires bags to be filled to the maximum mass at which they may be used. In the NPRM, we proposed to revise paragraph (b) to clarify that the preparation of bags for the drop and stacking tests only applies to bags containing solids. No commenters addressed this proposal; it is adopted without change in this final rule.

Section 178.810

Section 178.810 establishes requirements for performing the drop test for IBCs. In the NPRM, we proposed to revise paragraph (b)(1) to clarify that metal, rigid plastic, and composite IBCs must be filled to not less than 95% of their maximum capacity when conducting drop tests for solids, and not less than 98% of their maximum capacity for liquids. Similarly, in paragraph (b)(2), we proposed to require fiberboard and wooden IBCs to be filled with a solid material to not less than 95% of their maximum capacity. Also, we proposed to add a new paragraph (b)(3) to require filling flexible IBCs to the maximum permissible gross mass and even distribution of the contents. No commenters addressed these proposals; they are adopted without change in this final rule.

Part 180

Section 180.213

On August 29, 2006 the **Federal Register** published a final rule under Docket HM–220F (71 *FR* 51122) establishing additional requalification requirements for cylinders manufactured of aluminum alloy 6351–T6. In the amendatory language, we inadvertently revised paragraph (d) rather than the paragraph (d) introductory text. In this final rule, we are revising paragraph (d) to correct this error.

Section 180.352

Section 180.352 establishes requirements for retesting and inspection of IBCs to ensure that they continue to conform to the applicable specification. In the NPRM, we proposed to revise paragraph (b) to specify that each IBC intended to contain solids that are loaded or discharged under pressure or intended to contain liquids must be tested in accordance with the leakproofness test prescribed in § 178.813 prior to its first use in transportation. For this test, the IBC is not required to have its closures fitted. These proposals incorporate clarifications adopted in the Fourteenth revised edition of the UN Recommendations. We received no comments on these proposals and are adopting them without change in this final rule.

IV. Regulatory Analyses and Notices

A. Statutory/Legal Authority for This Rulemaking

This final rule is published under the following statutory authorities:

1. 49 U.S.C. 5103(b) authorizes the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce. This final rule amends regulations to maintain alignment with international standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations and vessel stowage requirements. To this end, as discussed in detail earlier in this preamble, the final rule amends the HMR to more fully align them with the biennial updates of the UN Recommendations, the IMDG Code and the ICAO Technical Instructions; this will facilitate the transport of hazardous materials in international commerce.

Harmonization serves to facilitate international transportation; at the same time, harmonization ensures the safety of people, property, and the environment by reducing the potential for confusion and misunderstanding that could result if shippers and

transporters were required to comply with two or more conflicting sets of regulatory requirements. While the intent of this rulemaking is to align the HMR with international standards, we review and consider each amendment on its own merit based on its overall impact on transportation safety and the economic implications associated with its adoption into the HMR. Our goal is to harmonize without sacrificing the current HMR level of safety and without imposing undue burdens on the regulated public. Thus, as discussed in detail earlier in this preamble, there are several instances where we elected not to adopt a specific provision of the UN Recommendations, the IMDG Code or the ICAO Technical Instructions. Moreover, we are maintaining a number of current exceptions for domestic transportation that should minimize the compliance burden on the regulated community.

2. 49 U.S.C. 5120(b) authorizes the Secretary of Transportation to ensure that, to the extent practicable, regulations governing the transportation of hazardous materials in commerce are consistent with standards adopted by international authorities. This final rule amends the HMR to maintain alignment with international standards by incorporating various amendments to facilitate the transport of hazardous material in international commerce. To this end, as discussed in detail earlier in this preamble, the rule incorporates changes into the HMR based on the Fourteenth revised edition of the UN Recommendations, Amendment 33 to the IMDG Code, and the 2007–2008 ICAO Technical Instructions, which become effective January 1, 2007. The continually increasing amount of hazardous materials transported in international commerce warrants the harmonization of domestic and international requirements to the greatest extent possible.

B. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is not considered a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, was not reviewed by the Office of Management and Budget. The final rule is not considered a significant rule under the Regulatory Policies and Procedures of the Department of Transportation [44 FR 11034]. This final rule applies to offerors and carriers of hazardous materials, such as chemical manufacturers, chemical users and suppliers, packaging manufacturers, distributors, battery manufacturers, and radiopharmaceutical companies. Benefits resulting from the amendments in this final rule include enhanced transportation safety resulting from the consistency of domestic and international hazard communications and continued access to foreign markets by U.S. manufacturers of hazardous materials.

The majority of amendments in this final rule result in cost savings and ease the regulatory compliance burden for shippers engaged in domestic and international commerce, including trans-border shipments within North America.

We are authorizing a delayed effective date and a one-year transition period for the majority of amendments in this final rule; we are authorizing extended transition periods for certain amendments. The transition periods allow for training of employees and ease any burden on entities affected by the amendments. The total net increase in costs to businesses in implementing the final rule is considered to be minimal. The costs are the result of reprogramming shipping paper computer programs, replacement of pre-printed forms for firms that do not use automated systems, and changes to package markings and labels. Initial start-up and inventory costs result from these changes; however, the costs will be offset by greater long-term savings of conformance with one set of regulations and a one-year transition period. A regulatory evaluation is available for review in the public docket for this rulemaking.

C. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (''Federalism''). This final rule preempts State, local and Indian tribe requirements but does not impose any regulation that has substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazardous material transportation law, 49 U.S.C. 5101–5128, contains an express preemption provision (49 U.S.C. 5125(b)) that preempts State, local, and Indian tribe requirements on certain covered subjects. Covered subjects are:

(1) The designation, description, and classification of hazardous material;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous material;

(3) The preparation, execution, and use of shipping documents related to hazardous material and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; and

(5) The design, manufacture, fabrication, inspection, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material in commerce.

This final rule addresses covered subject items (1), (2), (3), and (5) above and preempts State, local, and Indian tribe requirements not meeting the ''substantively the same'' standard. This final rule is necessary to incorporate changes adopted in international standards, effective January 1, 2007. If the changes in this final rule are not adopted in the HMR, U.S. companies, including numerous small entities competing in foreign markets, would be at an economic disadvantage. These companies would be forced to comply with a dual system of regulations. The changes in this rulemaking are intended to avoid this result. Federal hazardous materials transportation law provides at section 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. The effective date of Federal preemption is March 29, 2007.

D. Executive Order 13175

This final rule was analyzed in accordance with the principles and criteria contained in Executive Order 13175 (''Consultation and Coordination with Indian Tribal Governments''). Because this final rule does not have tribal implications and does not impose substantial direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply.

E. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities, unless the agency determines that a rule is not expected to have a significant impact on a substantial number of small entities. This final rule facilitates the transportation of hazardous materials in international commerce by providing

consistency with international standards. This final rule applies to offerors and carriers of hazardous materials, some of whom are small entities, such as chemical users and suppliers, packaging manufacturers, distributors, and battery manufacturers. As discussed above, under *Executive Order 12866,* the majority of amendments in this final rule result in cost savings and ease the regulatory compliance burden for shippers engaged in domestic and international commerce, including trans-border shipments within North America.

Many companies will realize economic benefits as a result of these amendments. Additionally, the changes effected by this final rule will relieve U.S. companies, including small entities competing in foreign markets, from the burden of complying with a dual system of regulations. Therefore, I certify that the requirements in this final rule will not have a significant economic impact on a substantial number of small entities.

This final rule has been developed in accordance with Executive Order 13272 (''Proper Consideration of Small Entities in Agency Rulemaking'') and DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts of draft rules on small entities are properly considered.

F. Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995, no person is required to respond to a collection of information unless it displays a valid Office of Management and Budget (OMB) control number. Section 1320.8(d), Title 5, Code of Federal Regulations requires that PHMSA provide interested members of the public and affected agencies an opportunity to comment on information collection and recordkeeping requests. PHMSA currently has two approved information collections affecting this final rule: OMB Control Number 2137–0557, ''Approvals for Hazardous Materials'' with 25,605 burden hours and $562,837.40 burden costs; and OMB Control Number 2137–0613, ''Subsidiary Hazard Class & Number/Type of Packagings'' with 63,309 burden hours and $216,705 burden costs.

There are minor editorial changes under this rule. However, there is no net increase in burden for OMB Control Number 2137–0557 or OMB Control Number 2137–0613. We estimate the total information collection and recordkeeping burden as follows:

''Approvals for Hazardous Materials'' OMB Number 2137–0557:

Total Annual Number of Respondents: 3,523.
Total Annual Responses: 3,874.8.
Total Annual Burden Hours: 25,605.
Total Annual Burden Cost: $562,837.40.

''Subsidiary Hazard Class & Number/Type of Packagings'' OMB Number 2137–0613:

Total Annual Number of Respondents: 250,000.
Total Annual Responses: 6,337,500.
Total Annual Burden Hours: 17,604.
Total Annual Burden Cost: $216,705.
Total First Year Burden Hours: 45,705.
Total First Year Burden Cost: $1,115,992.

Requests for a copy of this information collection should be directed to Deborah Boothe or T. Glenn Foster, Office of Hazardous Materials Standards (PHH–10), Pipeline and Hazardous Materials Safety Administration, Room 8422, 400 Seventh Street, SW., Washington, DC 20590–0001, telephone (202) 366–8553.

G. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

H. Unfunded Mandates Reform Act

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $120.7 million or more to either State, local or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of the rule.

I. Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA) requires Federal agencies to consider the consequences of major Federal actions and prepare a detailed statement on actions significantly affecting the quality of the human environment. We developed an assessment to determine the effects of these revisions on the environment and whether a more comprehensive environmental impact statement may be required. Consistency in the regulations for the transportation of hazardous materials aids in shipper understanding of the requirements and permits shippers to more easily comply with safety regulations and avoid the potential for environmental damage or contamination. Our findings conclude that there are no significant environmental impacts associated with this final rule. For interested parties, an Environmental Assessment is available in the public docket.

J. Privacy Act

Anyone is able to search the electronic form of any written communications and comments received into any of our dockets by the name of the individual submitting the document (or signing the document, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78) or you may visit *http://dms.dot.gov.*

List of Subjects

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

49 CFR Part 172

Education, Hazardous materials transportation, Hazardous waste, Incorporation by reference, Labeling, Markings, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 173

Hazardous materials transportation, Incorporation by reference, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

49 CFR Part 175

Air carriers, Hazardous materials transportation, Incorporation by reference, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 176

Hazardous materials transportation, Incorporation by reference, Maritime carriers, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 178

Hazardous materials transportation, Incorporation by reference, Motor vehicle safety, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 180

Hazardous materials transportation, Motor carriers, Motor vehicle safety, Packaging and containers, Railroad safety, Reporting and recordkeeping requirements.

Issued in Washington, DC on December 1, 2006 under authority delegated in 49 CFR part 1.

Thomas J. Barrett,

Administrator.

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DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 171, 172, 173, 175 and 176

[Docket No. PHMSA–2005–23141 (HM–215F)]

RIN 2137–AE01

Hazardous Materials: Revision and Reformatting of Requirements for the Authorization To Use International Transport Standards and Regulations

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Final rule.

SUMMARY: In this final rule, PHMSA is amending the Hazardous Materials Regulations to revise and consolidate the requirements applicable to the use of the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air, the International Maritime Dangerous Goods Code, Transport Canada's Transportation of Dangerous Goods Regulations, and the International Atomic Energy Agency's Safety Standards Series: Regulations for the Safe Transport of Radioactive Material. The revisions and reformatting provide a user-friendly format to promote understanding of the conditions and limitations on the use of international standards and regulations. In addition, PHMSA is authorizing the use in domestic transportation of portable tanks, cargo tank motor vehicles, and rail tank cars manufactured in accordance with Transport Canada's Transportation of Dangerous Goods Regulations. The amendments adopted in this final rule maintain the high transportation safety standard established under the Hazardous Materials Regulations.

DATES: *Effective date:* October 1, 2007.

Incorporation by Reference Date: The incorporation by reference of certain publications listed in these amendments is approved by the Director of the Federal Register as of October 1, 2007.

FOR FURTHER INFORMATION CONTACT: Duane Pfund, International Standards Coordinator, telephone (202) 366–0656, or Joan McIntyre, Office of Hazardous Materials Standards, telephone (202) 366–8553, Pipeline and Hazardous Materials Safety Administration.

SUPPLEMENTARY INFORMATION:

I. Background

To facilitate the safe and efficient transportation of hazardous materials in international commerce, the Hazardous Materials Regulations (HMR; 49 CFR Parts 171–180), with certain limitations, permit both domestic and international shipments of hazardous materials to be offered for transportation and transported under provisions of the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions), the International Maritime Dangerous Goods Code (IMDG Code), the Transport Canada's Transportation of Dangerous Goods Regulations (Transport Canada TDG Regulations), and the International Atomic Energy Agency's Safety Standards Series: Regulations for the Safe Transportation of Radioactive Material (IAEA Regulations), as appropriate.

Consistency between U.S. and international regulations helps to assure the safety of international hazardous materials transportation through better understanding of the regulations, an increased level of industry compliance, the smooth flow of hazardous materials from their points of origin to their points of destination, and effective emergency response in the event of a hazardous materials incident. For example, many shippers find that consistency in requirements aids their understanding of what is required, thereby permitting them to more easily comply with the regulations when shipping hazardous materials in international commerce.

The Federal hazardous materials transportation law (Federal hazmat law; 49 U.S.C. 5101 et seq.) requires PHMSA to align the HMR with international transport standards and requirements to the extent practicable (see § 5120). The Federal hazmat law permits PHMSA to deviate from international transport standards and requirements when such action is in the public interest. Therefore, we periodically align the HMR with international transport standards and regulations through various rulemakings. We also periodically review and revise the provisions for the authorization to use the international transport standards and regulations in order to maintain a safety level equal to that of the HMR, thereby assuring the protection of people, property, and the environment. Based on our comprehensive, technical review, we have determined that the amendments adopted in this final rule provide an equivalent level of safety as is currently achieved under the HMR.

On January 27, 2006, PHMSA issued a notice of proposed rulemaking (NPRM, 71 FR 4544) proposing to amend the HMR by revising and consolidating the requirements applicable to the use of international standards and regulations. Our goal with this rulemaking is to reorganize and clarify the conditions and limitations on the use of international standards and regulations for transportation in the United States. The purpose of the reorganization is to provide an easier format for HMR users, particularly for persons transporting hazardous materials by multiple modes of transportation, thereby providing a clearer understanding of the conditions and limitations for the use of authorized international standards and facilitating the transportation of hazardous material shipments.

II. Discussion of Comments and Regulatory Revisions

In response to the NPRM, we received 25 comments from industry associations, shippers and others, as follows:

Commenter	Document No.
The Estee Lauder Companies, Inc. (ELC)	PHMSA–2005–23141–2
International Tank Container Organization (ITCO)	PHMSA–2005–23141–3
Regulatory Resources, Inc	PHMSA–2005–23141–4
Owen B. Bugg	PHMSA–2005–23141–5
Fed Ex	PHMSA–2005–23141–6
The Fertilizer Institute (TFI)	PHMSA–2005–23141–7
National Tank Truck Carriers, Inc. (NTTC)	PHMSA–2005–23141–8
Air Products and Chemicals, Inc. (Air Products)	PHMSA–2005–23141–9
Council on Radionuclides and Radiopharmaceuticals, Inc. (CORAR)	PHMSA–2005–23141–10
PPG Industries, Inc. (PPG)	PHMSA–2005–23141–11

Commenter	Document No.
American Trucking Associations (ATA)	PHMSA–2005–23141–12
Ashland Specialty Chemical Company (Ashland)	PHMSA–2005–23141–13
Lawrence A. Duncan	PHMSA–2005–23141–14
International Vessel Operators Hazardous Materials Association, Inc. (VOHMA)	PHMSA–2005–23141–15
Air Transport Association of America, Inc. (Air Transport)	PHMSA–2005–23141–16
Council on Safe Transportation of Hazardous Articles, Inc. (COSTHA)	PHMSA–2005–23141–17
Association of Hazmat Shippers (AHS)	PHMSA–2005–23141–18
Association of American Railroads (AAR)	PHMSA–2005–23141–19
National Propane Gas Association (NPGA)	PHMSA–2005–23141–20
CF Industries, Inc	PHMSA–2005–23141–21
U.S. Nuclear Regulatory Commission (NRC)	PHMSA–2005–23141–22
Dangerous Goods Advisory Council (DGAC)	PHMSA–2005–23141–23
Canadian Trucking Alliance (CTA)	PHMSA–2005–23141–24
CropLife America	PHMSA–2005–23141–25
Jerry Hayes	PHMSA–2005–23141–26

Most commenters express support for the goals of this rulemaking; others raise concerns as discussed below. The NPRM primarily addressed the reformatting of the HMR sections addressing the authorization to use international standards. We proposed only minor changes to the specific requirements themselves. Some commenters mistakenly described current requirements incorporated into the reformatted sections as ''proposed requirements'' and, in some cases, opposed the ''revisions.'' Other commenters requested changes that were not proposed in the NPRM. These comments are beyond the scope of this rulemaking and are not addressed in this final rule. We direct these commenters to 49 CFR 106.95 for procedures to submit petitions for rulemaking.

In this final rule, PHMSA is amending the HMR to revise, consolidate, and clarify the HMR provisions authorizing the use of the ICAO Technical Instructions, the IMDG Code, the Transport Canada TDG Regulations, and the IAEA Regulations, as previously contained in §§ 171.11, 171.12 and 171.12a. The newly designated sections, as adopted in this final rule, will continue to permit both domestic and international shipments of hazardous materials to be offered for transportation and transported under the provisions of the applicable transport standards and regulations, subject to certain conditions and limitations. Additionally, we are consolidating the newly designated sections for the use of international standards and regulations into new Subpart C.

A. Incorporation by Reference Material

In § 171.7, we are incorporating by reference the most recent edition of the Transport Canada TDG Regulations, including Amendments 4 and 5.

Additionally, we are incorporating by reference the Canadian General Standards Board (CGSB) standard, CGSB–43.147 for the ''Construction, Modification, Qualification, Maintenance and Selection and Use of Rail Tank Cars.'' The incorporation of these materials relates to our adoption of expanded provisions for the use of Canadian bulk packagings for transportation to and from the United States. As indicated below, this incorporation by reference maintains the high safety standard currently achieved under the HMR (see preamble discussion under ''Bulk Shipments to Canada'').

B. Consolidation of the Conditions and Limitations for Use of the ICAO Technical Instructions, IMDG Code, and TDG Regulations

The HMR, ICAO Technical Instructions, IMDG Code, and the Transport Canada TDG Regulations are based on the UN Recommendations on the Transport of Dangerous Goods (UN Recommendations), which are model regulations issued by the UN Committee of Experts on the Transport of Dangerous Goods and the Globally Harmonized System of Classification and Labeling of Chemicals (UN COE). Currently, the conditions and limitations under which the ICAO Technical Instructions, IMDG Code, and TDG Regulations may be used for domestic transportation are set forth in §§ 171.11, 171.12, and 171.12a. The authorizations to use the ICAO Technical Instructions, IMDG Code, and the Transport Canada TDG Regulations contain many of the same conditions and limitations for use. To eliminate redundancy, we proposed in the NPRM to consolidate and reformat these conditions and limitations into a single section that would apply to the use of all three standards.

CropLife America and the Dangerous Goods Advisory Council (DGAC) are opposed to the consolidation and reformatting of the international standards as proposed in the NPRM. The two organizations suggest users of the HMR are familiar with the current format and assert the proposed formatting, if adopted, would create confusion and possibly ''hamper compliance with the regulations.'' The two commenters state ''Users of the HMR normally are only interested in the

additional requirements applying to requirements of one international body—not all three at one time. Consolidating the requirements forces the user to wade through numerous additional requirements not relevant to the particular international regulation of interest.'' DGAC suggests these actions will ''complicate compliance and may encourage other countries to reciprocate and apply minutely differing requirements based on their own domestic regulations.''

We disagree with these commenters. We receive many questions each year from shippers and carriers expressing confusion about the conditions under which the international standards may be used for domestic transportation. Moreover, other commenters who address this issue (including TFI, Air Products, the American Trucking Associations, VOHMA, the Air Transport Association, and COSTHA) express support for the consolidation and reformatting proposed in the NPRM. We believe that expanding the level of detail applicable to the use of the international standards, combined with the reformatting proposed in the NPRM, will make the requirements clearer and easier to understand. Therefore, as proposed, we are consolidating into one section, § 171.22, those conditions and limitations applicable to all of the authorized international transport standards and regulations. Section 171.23 is added for requirements pertaining to specific materials and packagings, §§ 171.24–171.26 are added as separate sections specific to the additional provisions for each standard. The newly numbered sections are contained in new Subpart C of Part 171 as follows:

- Section 171.22, (previously contained in § 171.11, 171.12 and 171.12a), as adopted in this final rule, authorizes the offering, acceptance, and transportation of hazardous materials:

—By aircraft and motor vehicle in accordance with the ICAO Technical Instructions;

—By vessel, motor vehicle, or rail in accordance with the IMDG Code, provided all or part of the transportation is by vessel;

—By motor vehicle or rail in accordance with the Transport Canada TDG Regulations, for: (1) Shipments that originate in Canada and either terminate in the United States or transit the United States to a Canadian or foreign destination, or (2) certain bulk shipments to, from, or within the United States;

—By aircraft, vessel, motor vehicle, or rail for the transportation of radioactive materials in accordance with the IAEA Regulations for shipments imported into or exported from the United States or transiting the United States during transportation between places outside the United States.

- Section 171.23 specifies requirements for certain specific materials (such as combustible liquids, hazardous wastes, and organic peroxides) and packagings (such as cylinders, aerosols, and chemical oxygen generators) transported under the authorized international standards and regulations.
- Section 171.24 specifies the additional requirements unique to the use of the ICAO Technical Instructions.
- Section 171.25 specifies the additional requirements unique to the use of the IMDG Code.
- Section 171.26 specifies the additional requirements unique to the use of the IAEA Regulations.

Note that additional requirements applicable to North American shipments are contained in § 171.12. These requirements apply to use of the Transport Canada TDG regulations for shipments between the United States and Canada and to shipments into the United States from Mexico. Even though the Mexican standards, Normas Officiales Mexicanos (NOMs) and the Regulations for Land Transportation of Hazardous Materials and Waste, are to a considerable degree consistent with the HMR, differences do exist and shippers must exercise caution to ensure that shipments transported from Mexico into the United States are in full compliance with the applicable HMR requirements. For additional information and guidance for preparing shipments of hazardous materials between the United States and Mexico, you may access *http://hazmat.dot.gov/nomslst.htm.*

In several places in the NRPM, we proposed to clarify that shipments transported in conformance with an international standard must also conform to all applicable requirements of the HMR. DGAC and CropLife objected to such phrases as ''all applicable requirements of this subchapter or part must be met.'' The commenters request we direct the user to the requirements by replacing the phrase with the specific regulatory citations for those parts, subparts, or sections of the HMR that apply. We note concerning these comments that this phrase and similar phrases are used throughout the HMR and that it is the responsibility of the shipper or carrier to be knowledgeable about all the HMR requirements applicable to its operations. From a practical standpoint, using specific citations would mean that we would have to amend these sections if the citations are revised in future rulemakings. The more general reference makes it easier to keep the regulations up to date. For these reasons, we are not adopting the CropLife and DGAC recommendation.

C. New Subparts Added to Part 171

With the addition of Subpart C to Part 171, we are also adding new subparts to more appropriately separate the remaining sections in current Part 171. Subpart A is added to include the current provisions concerning the applicability of the HMR and general requirements for transportation, and provisions for the Paperwork Reduction Act, reference material, definitions and abbreviations, rules of construction, units of measure, and North American shipments. Subpart B is added to include the current provisions for incident reporting, approvals and authorizations issued by the Bureau of Explosives, submission of reports, and investigations and special studies. We did not propose revisions to the requirements in new Subparts A and B of Part 171. In this final rule, the reorganized subparts are adopted as proposed in the NPRM except, as indicated above, requirements applicable to Canadian and Mexican shipments are located in § 171.12.

D. Revisions to Current Conditions and Limitations for Use

We are making several revisions to the current conditions and limitations for use of international standards and regulations, including: (1) Removing certain unnecessary requirements; (2) clarifying labeling requirements for limited quantities of Division 6.1 materials in Packing Groups II and III; (3) clarifying requirements for the use of International Maritime Organization (IMO) Type 5 tanks; and (4) authorizing the use of the Transport Canada TDG Regulations for return shipments from the United States to Canada. These and other revisions are explained in more detail below.

1. Removal of Unnecessary HMR Requirements

As proposed in the NPRM, we are removing the following conditions and limitations from the HMR because they have been incorporated into the most recent editions of the ICAO Technical Instructions, the IMDG Code, and the Transport Canada TDG Regulations and, therefore, are no longer necessary:

• The restriction in current §§ 171.11(d)(12), 171.12(b)(14), and 171.12a(b)(14) prohibiting use of international standards for the transportation of ammonium nitrate fertilizer or ammonium nitrate mixed fertilizer that meets the definition for a Class 1 (explosive) material.

• The limitation on the use of abbreviations in current §§ 171.11, 171.12 and 171.12a.

• The prohibition in current § 171.12a(b)(6) from displaying a product identification number (PIN) preceding a UN number. PIN numbers are no longer authorized in the TDG Regulations.

Currently, under § 171.12a(b)(5)(vi), shipping papers for shipments of anhydrous ammonia prepared in accordance with the TDG Regulations must contain an indication that the markings, labels and placards have been applied in conformance with the TDG Regulations. In the NPRM, we proposed to remove this requirement because the NPRM included a proposal to require an indication on shipping papers of the regulation utilized for the shipments. We are not adopting the new shipping paper requirement in this final rule (see discussion below for a detailed explanation of the issue, comments received, and our decision this proposal). Therefore, we are retaining in this final rule the requirement specific to shipments of anhydrous ammonia.

In addition, in response to a comment from TFI, we are modifying the limitations specific to the transportation of PIH materials to retain the language in current § 171.12a(b)(5)(iv) that permits shipments of anhydrous ammonia to be labeled or placarded in accordance with TDG requirements. This language was inadvertently omitted in the NPRM. TFI also notes that in § 171.102, Special Provision 13, which requires the words ''Inhalation Hazard'' to be entered on shipping papers and marked on packagings containing anhydrous ammonia, excepts anhydrous ammonia shipments from the shipping paper requirements in § 172.203(m) applicable to materials that are poisonous by inhalation. TFI suggests that since we are incorporating the provisions of § 172.203(m) into new § 171.23(b)(10), Special Provision 13 should be modified to include an exception from the requirements in § 171.23(b)(10). We do not agree; we believe the revised text adopted in this final rule makes clear that shipments of anhydrous ammonia prepared in accordance with the Transport Canada TDG Regulations may be labeled and placarded in accordance with TDG requirements.

2. Division 6.1 PG II and III Limited Quantity Labeling Requirements

In the NPRM, we proposed to clarify the current requirement that Division 6.1 materials transported as limited quantities are not excepted from labeling when shipped to, from, or within the United States under the ICAO Technical Instructions, IMDG Code, or the Transport Canada TDG Regulations. ATA opposes this requirement, suggesting that it may require carriers to add labels to certain imported materials. It is not our intention to require carriers to affix labels to packages that are not labeled in accordance with the HMR requirements. As we have said in previous rulemakings and letters of interpretation, a carrier may rely on information provided by the offeror of the hazardous material or a prior carrier, unless the carrier knows or, a reasonable person, acting in the circumstances and exercising reasonable care, would have knowledge that the information provided by the offeror or prior carrier is incorrect. Therefore, in this final rule, we are adopting the clarifying language as proposed in the NPRM.

3. Entering an Indication of the Transport Standard or Regulation Used on Shipping Papers

In the NPRM, we proposed to require shippers to identify by acronym (ICAO, IMDG, TDG, or IAEA) on shipping papers the international standard or regulation under which a hazardous material shipment is being transported. We received several comments supporting and 10 comments opposing the proposal. The commenters opposed to the requirement are FedEx Express, Air Products and Chemicals, Inc. (Air Products), PPG Industries, Inc. (PPG), American Trucking Associations, Inc. (ATA), National Tank Truck Carriers (NTTC), Air Transport Association of American (Air Transport Association), Dangerous Goods Advisory Council (DGAC), Association of Hazmat Shippers (AHS), The Estee Lauder Companies, Inc. (ELC) and the Association of American Railroads (AAR). The commenters in favor of the requirement are the International Vessel Operators Hazardous Materials Association, Inc. (VOHMA), the Council on Safe Transportation of Hazardous Articles (COSTHA), and Lawrence A. Duncan with the U.S. Coast Guard (USCG) Container Inspection Training and Assistance Team.

Commenters supporting the proposal suggest that the lack of an identification of the standard or regulation under which a hazardous material is shipped causes unnecessary transportation delays and, thus, added costs to the shipper.

Commenters opposing the proposal suggest that it is not necessary and could cause confusion. For example, FedEx calls the proposed change ''unnecessary'' and states that such a requirement will cause shipments to be delayed and confuse shippers. DGAC states that any ''justification'' for the requirement has diminished over time with increasing harmonization between the HMR and international regulations. DGAC further states that the requirement would be ''extremely burdensome.'' Some commenters state that the requirement would be repetitive and would cause costly modifications to computer systems.

The Air Transport Association suggests we make the proposed requirement permissive and allow for the acronym to be placed in association with the basic description(s) of the hazardous materials.

As stated in the NPRM, we believe that identifying the particular transport standard or regulation under which a shipment is transported would expedite shipments by providing on-the-spot information to inspectors, carrier personnel and freight forwarders that would facilitate transportation and avoid confusion and frustrated shipments. However, we agree with the commenters who suggest that the need for identification of the standard or regulation used to prepare the shipment has lessened over time with the increasing harmonization of domestic and international transportation standards. Moreover, we agree that the burden this requirement would impose on shippers would outweigh any benefits that might result from its adoption. Therefore, we are not adopting the proposal in this final rule. We note, however, that shippers who wish to do so may include the acronym on shipping papers if they so choose; no rule change is necessary to permit such an indication on a shipping paper.

4. Retention of Shipping Papers

In the NPRM, we proposed to clarify that each person who receives a hazardous materials shipment must retain a copy of the shipping paper in accordance with § 172.201(e). DGAC comments that we appeared to propose a more ''severe requirement'' in § 171.22(g)(5) by proposing to require consignees to retain shipping papers. DGAC notes that neither the Federal hazardous materials transportation law (49 U.S.C. 5101 *et seq.*) nor the HMR apply to consignees. DGAC appears to have misunderstood our intent. We did

not propose to expand the requirement to include consignees. The requirement continues to apply to each person who provides a shipping paper (see § 172.201(e)) and each person who receives a hazardous material shipment that will continue in transportation (see §§ 174.24(b), 175.30(a)(2), 176.24(b) and 177.817(f)).

5. Including the Word ''Poison'' or ''Toxic'' on Shipping Papers

We are removing from § 171.23(b)(10) the proposed requirement to include the word ''Poison'' or ''Toxic'' on a shipping paper when the shipping name or class entry does not reflect the material as being poisonous. We removed this requirement under Docket HM–189Y (FR 70 56084), published on September 23, 2005, as no longer necessary because § 172.202(a)(2) requires the subsidiary hazard class(es) to be entered following the primary hazard class or division number.

6. Shipper's Certification

In accordance with § 172.204, unless otherwise excepted, each person who offers a hazardous material for transportation must certify that the material is offered in accordance with all applicable HMR requirements. This certification is accomplished through the offeror's signature below a statement certifying that the shipment is properly classified, described, packaged, marked and labeled, and in proper condition for transportation according to applicable DOT regulations. A similar certification statement is also required under the IMDG Code and ICAO, but not the Transport Canada TDG Regulations. In the NPRM, we proposed to require each shipper to provide a ''shipper's certification,'' as required by § 172.204 of the HMR, for shipments being transported under all authorized international standards and regulations into the United States. The adoption of this requirement would align shipments being transported under the Transport Canada TDG Regulations with the other authorized international standards.

AAR opposes this proposal. According to AAR, it will be extremely difficult to adapt the Electronic Data Interchange (EDI) system used to transmit information between railroads to include the proposed certification. AAR requests a two-year implementation period. We agree that additional time would be beneficial to companies who may have to adapt computer systems to accommodate the new requirement. In this final rule, we are providing two years from the date of publication of the final rule for implementation of the new certification requirement.

FedEx and Air Transport also oppose the new certification requirement, stating that it would pose an economic burden on shippers offering hazardous materials that are excepted from the certification (such as diagnostic specimens and dry ice) under the ICAO Technical Instructions. The commenters suggest an amendment to the proposal that would continue to except such shipments from the shipper's certification requirement. Commenters appear to have misunderstood the NPRM proposal. It was not our intention to require a shipper's certification for shipments that are currently excepted from this requirement. However, the comments suggest a need to clarify this issue in the regulatory text. Therefore, in this final rule, we are adopting the requirement as proposed with the addition of the phrase ''unless otherwise excepted'' in the regulatory text to clarify that the existing exceptions from the shipping certification requirement are still in effect.

7. Use of IMO Type 5 Tanks

In the NPRM, we proposed in § 171.24 to clarify the conditions under which IMO Type 5 tanks are authorized for the transportation of hazardous materials. An IMO Type 5 tank is only authorized when specifically identified in the applicable packaging section of the HMR. If an IMO Type 5 tank is not specifically listed as an authorized packaging, the portable tank must meet DOT 51 or UN portable tank requirements. No commenters addressed this proposal. Therefore, it is adopted as proposed in the NPRM.

8. Bulk Shipments to Canada

In the current § 171.12a, the use of the Transport Canada TDG Regulations includes the return to Canada of empty bulk packages containing only a residue of the hazardous materials initially imported into the United States. We proposed in the NPRM to expand in § 171.26 the authorization to permit the use of bulk packagings authorized in the TDG regulations to transport hazardous materials while returning to Canada from the United States. Additionally, we requested comments concerning whether we should expand reciprocity and allow the use in domestic transportation in the United States of cargo tanks, rail tank cars, and portable tanks built to Canadian specifications as Canada permits the use in Canada of similar packagings built to U.S. specifications. We asked commenters to address whether there are safety or operational considerations we should examine before expanding reciprocal treatment beyond the amendments we proposed in the NPRM.

ATA, NTTC, Air Products and CTA support expanded reciprocity to allow unrestricted use in the United States of cargo tanks constructed to Canadian specifications. AAR strongly supports reciprocity for tank cars, noting the current similarities between the two regulations.

We agree with these commenters that expansion of authorization for use of the Transport Canada TDG Regulations in the United States will provide additional flexibility and is consistent with the reciprocity currently extended to the United States for DOT specification bulk packagings. We note in this regard that Transport Canada is considering implementing restrictions on the use in Canada of DOT specification cargo tanks, rail tank cars, and portable tanks that are similar to the restrictions we now place on bulk packagings manufactured in accordance with Canadian specifications. If implemented in Canada, such a restriction would limit U.S. carriers' operational flexibility and potentially increase transportation costs.

PHMSA worked closely with Transport Canada to compare the cargo tank, rail tank car and portable tank requirements in the HMR and the TDG Regulations. We determined that the standards for design, manufacture, and requalification of cargo tanks, rail tank cars, and portable tanks in the TDG Regulations are equivalent to the standards for design, manufacture, and requalification of cargo tanks, rail tank cars, and portable tanks in the HMR. Further, according to Transport Canada, cargo tanks, rail tank cars, and portable tanks built to the Canadian specifications have a well-established history of safe operations. We reviewed the small number of incidents in the United States over the past several years involving cargo tanks, rail tanks cars, and portable tanks built to the Canadian specifications and found no evidence of safety problems attributable to flaws in the design or manufacturing specifications. NTTC and ATA agree that there is no safety rationale for continuing to deny full reciprocity to bulk packagings built to Canadian specifications.

Therefore, we are authorizing the domestic use of portable tanks, cargo tank motor vehicles and rail tank cars manufactured in accordance with the TDG Regulations, provided the packagings conform to all applicable operational requirements specified in Parts 173, 177, and 180 of the HMR. Thus, a portable tank, cargo tank, or rail

tank car conforming to the TDG regulations may be used for transportation within the United States provided an equivalent packaging is authorized under the HMR and the bulk packaging conforms to operational requirements specific to each bulk packaging type. For example, a cargo tank motor vehicle constructed in accordance with the TDG regulations may be used in the United States provided it conforms to the HMR requirements applicable to loading, maximum lading pressure, pressure relief devices, retention of lading in piping, and emergency discharge control systems. As a result of this amendment, we are revising §§ 171.31, 171.32 and 171.33 to reflect the authorization. We are also revising the HMR to clarify the parts of the HMR applicable to Canadian specification bulk packagings (for example, hazardous material authorizations in the § 172.101 Hazardous Materials Table (HMT) Special Provision B Codes, material specific requirements in Part 173, operational requirements in Parts 174 and 177 for rail and motor vehicle transportation, and periodic testing and inspection requirements in Part 180). These amendments will ensure that bulk packagings constructed in accordance with the Canadian specifications will conform to all applicable HMR requirements when operated in the United States, thus maintaining the level of safety currently achieved under the HMR.

We note concerning this provision that shippers may use a portable tank, cargo tank motor vehicle or rail tank car equivalent to a corresponding DOT specification and conforming to and authorized by the Transport Canada TDG Regulations provided an equivalent type of packaging is authorized for the hazardous material in the HMR. Generally, an equivalent type of packaging will be one with same specification number as a U.S. packaging. Thus, an equivalent type of packaging to the MC 331 cargo tank authorized in the HMR is the TC 331 cargo tank authorized in the TDG regulations.

As proposed in the NPRM, in § 171.26 (previously § 171.12a(a)), we are removing the statement concerning TDG reciprocal provisions for U.S. shipments. The statement is not regulatory in nature and, therefore, is not appropriate for inclusion in the HMR. We also are removing the information currently contained in § 171.12a(b) that tells the reader how to obtain copies of the Transport Canada TDG Regulations; this is covered in the Reference Material provisions of § 171.7.

E. Combustible Liquids

In the NPRM, we stated that under the HMR, a material with a flashpoint of 38 °C (100 °F) or more but less than 60.5 °C (141 °F), may be classed as a combustible liquid when packaged in a non-bulk package. Since publication of the NPRM, a final rule under Docket PHMSA–06–25476 (HM–215I) at 71 FR 78596 published on December 29, 2006, adopted an amendment to revise the combustible liquid definition's lower limit to 60 °C (140 °F). Therefore, based on the new definition, such materials are not subject to the provisions of the HMR when transported by highway or rail. However, these same materials are regulated as flammable liquids when transported by vessel in accordance with the IMDG Code or by air under the ICAO Technical Instructions. In the NPRM, we proposed to add a statement to new § 171.23 indicating that a material reclassed as a combustible liquid under the HMR may require classification as a flammable liquid when offered for transportation or transported internationally.

ATA comments that the proposed language is permissive and fails to establish a specific standard for the transportation of combustible liquids under the international standards. Upon reconsideration, we agree that recommendatory language generally is not appropriate for inclusion in regulatory text. Therefore, we are not adopting the provision in this final rule.

ATA further suggests that, in the short term, flammable liquids reclassed as combustible liquids should continue to be excepted from placarding requirements and, in the long term, the combustible liquids classification should be abolished. ATA's comments are beyond the scope of this rulemaking; we will consider them in a future rulemaking.

A material with a flashpoint greater than 60 °C (140 °F) is not regulated as a hazardous material under the ICAO Technical Instructions or the IMDG Code; however, a material with a flashpoint between 60 °C (140 °F) and 93 °C (200 °F) is regulated as a combustible liquid under the HMR. When transported in bulk packages, a combustible liquid must be placarded with a COMBUSTIBLE placard (see § 172.544). The COMBUSTIBLE placard is not recognized overseas; therefore, shipments prepared in accordance with the HMR may be frustrated internationally by inspectors and enforcement personnel who are not familiar with the U.S. requirements. To avoid such frustration, shippers and carriers may remove the COMBUSTIBLE placard prior to placing the shipment on board a vessel for overseas shipment. However, these efforts are complicated by the requirement for the COMBUSTIBLE placard to remain on bulk packages while in the United States. Shipments originating overseas and bound for the United States encounter a similar problem when the shipment arrives in the United States, and the COMBUSTIBLE placard must be affixed prior to the shipment's movement. In the NPRM, we proposed to provide an exception from placarding for bulk shipments of combustible liquids in port areas.

DGAC and VOHMA support the proposal to except combustible liquids shipments from placarding requirements in port areas. Both organizations view the proposal as a positive solution to the problem of incompatible domestic and international regulations applicable to the transportation of combustible liquids.

Air Products and Owen Bugg express reservations regarding the proposed exception. These commenters state that under the proposed exception, shipments could sit at a port for several days without information for emergency responders. The commenters add that this may lead to segregation and enforcement complications because ''port area'' is not defined under the HMR, and enforcement officers may have varying interpretations of its meaning. The commenters suggest clarifying the issue by defining ''port area.''

Based on the comments received as well as our own additional analysis and review, we believe several issues as they relate to the use of placards for combustible liquids must be further studied before we modify regulations for domestic shipments of materials to international destinations. Among the issues that need further review, clarification and development are the definition of ''port area,'' hazard communications, emergency responder notification and other related critical safety issues. Therefore, in this final rule, we are not adopting the exception as proposed in the NPRM. However, we will continue to consider this issue as part of a review of all the regulatory requirements applicable to combustible liquids, as discussed in the following paragraph.

VOHMA raised a number of additional concerns about combustible liquids including concerns about improper documentation of flammable liquids with a flashpoint above 38 °C (93 °F) that are reclassed as combustible liquids being improperly transported by

vessel. These issues are beyond the scope of this rulemaking. However, PHMSA has initiated a review of the regulations applicable to the transportation of combustible liquids. This review will consider the transportation risk posed by these materials and differences between the domestic and international requirements for combustible liquids with a view towards determining whether the domestic regulations should be modified to more appropriately address the transportation risks of these materials. This effort will include a review of classification criteria, packaging requirements, shipping documentation, and hazard communication.

F. Cylinders in Port Area

In the NPRM, we proposed to consolidate current provisions governing the limitations on the use of international standards for the transportation of hazardous materials in cylinders. We did not propose changes to the conditions under which non-DOT specification cylinders may be used within the United States. Since publication of the NPRM, PHMSA published a final rule under Docket Number HM–220E (June 12, 2006; 71 FR 33858) adopting standards for the design, construction, maintenance, and use of cylinders and multiple element gas containers contained in the UN Recommendations. The HM–220E final rule revised current § 171.12 to specify the conditions and limitations on the use of UN cylinders in the United States. In this final rule, we are incorporating without change the revised provisions of § 171.12 into new § 171.23(a).

Additionally, we moved the cylinder import/export requirements from current paragraphs (k) and (l) in § 173.301 to new § 171.23 and the Canadian cylinder requirements from paragraph (m) of § 173.301 to new § 171.26. Section 173.301(j) is revised and paragraph (n) is redesignated as paragraph (k).

G. Authorization To Use TC Specification Cylinders

Currently, the HMR authorize the use of Canadian Transport Commission (CTC) specification cylinders that are manufactured, originally marked, and approved in accordance with the Transport Canada TDG Regulations and in full conformance with the TDG Regulations, provided certain requirements are met. In the NPRM, we proposed to expand this authorization to include Transport Canada (TC) specification cylinders. We received a comment from the National Propane Gas Association (NPGA) supporting the facilitation of international transportation of hazardous materials, but raising concerns about our proposal. NPGA questions whether the markings on the cylinders will be in metric units and recommends that we authorize dual markings in both metric and non-metric units of measurements.

Upon revisiting the issue, we realized that in addition to the marking requirements, the HMR would need updating to reflect the correct filling and requalification cites applicable to the TC cylinders. The proposed authorization for use of TC cylinders is not being adopted in this final rule; however, PHMSA will address TC cylinders in an upcoming rulemaking.

G. Training Requirements

Currently, the HMR permit training related to the requirements of the ICAO Technical Instructions and the IMDG Code as an alternative to function specific training on the requirements of the HMR. In the NPRM, we proposed to require hazmat employees to be provided training on the international standards in addition to function-specific training on the requirements of the HMR.

Four commenters (DGAC, Croplife, AAR, and ATA) object to the proposed revision to the training requirements. DGAC and Croplife note their understanding that the current function-specific training provisions require training on those sections of the ICAO Technical Instructions or IMDG Code that are relevant to a hazmat employee's responsibilities. DGAC and Croplife suggest that revised language is unnecessary and could result in confusion on the degree to which the additional training is required. DGAC and Croplife recommend we clarify this issue through guidance rather then rulemaking. AAR expresses concern that, since the revision was not discussed in the preamble to the NPRM, it is unclear what additional training would be required, why it is necessary, or the cost implications for the industry. ATA suggests it will be extremely difficult and expensive to train truck drivers on the requirements of both the HMR and the international regulations.

DGAC and Croplife are correct that, under the current function specific training requirements in § 172.704, hazmat employees should be trained on those sections of the ICAO Technical Instructions or IMDG Code that apply to a hazmat employee's responsibilities. However, we agree with those commenters who suggest that we do not currently have adequate information on the potential impacts of the proposed revision to mandate training for hazmat employees on the international standards in addition to function-specific training on the requirements of the HMR. Therefore, we are not adopting it in this final rule. We may consider this issue in a future rulemaking.

H. Incorporating Complete Text

As proposed in the NPRM, we are minimizing references in the regulatory text to other sections and parts of the HMR by incorporating the complete text for certain requirements in place of the reference number. This revision is being made to facilitate use of the HMR by minimizing the frequency with which the user will need to refer to other sections of the HMR.

III. Rulemaking Analyses and Notices

A. Statutory/Legal Authority for This Rulemaking

Under § 5120(b) of Federal hazmat law, the Secretary of Transportation must ensure that, to the extent practicable, regulations governing the transportation of hazardous materials in commerce are consistent with standards adopted by international authorities. We are making revisions to the requirements authorizing the use of international standards and regulations in the United States. The continually increasing amount of hazardous materials transported in international commerce warrants harmonization of domestic and international requirements to the greatest extent possible. Harmonization serves to facilitate international transportation; more importantly, harmonization ensures the safety of people, property, and the environment by reducing the potential for confusion and misunderstanding that could result if shippers and transporters were required to comply with two or more conflicting sets of regulatory requirements.

B. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is not a significant regulatory action under section 3(f) of Executive Order 12866 and was not reviewed by the Office of Management and Budget. This final rule is a non-significant rule under the Regulatory Policies and Procedures of the Department of Transportation [44 FR 11034].

This final rule reorganizes and clarifies the conditions and limitations on the use of international standards and regulations for transporting hazardous materials in the United

States. The final rule also removes unnecessary and outdated requirements and includes provisions to increase shipper flexibility for the transport of hazardous materials. The final rule imposes a new requirement for shippers to provide a shipper's certification for shipments transported into the United States under the Transport Canada TDG Regulations. Such a certification is already required under the HMR, ICAO Technical Instructions, and IMDG Code, and we believe that most Canadian shippers already include such a certification on shipments into the United States. Moreover, we are providing a two-year transition period to minimize potential cost impacts. The final rule also provides for expanded exceptions concerning the use of bulk packagings manufactured in accordance with Canadian standards. The exceptions provide increase flexibility for both shippers and carriers and will facilitate the international transportation of hazardous materials, thereby reducing overall transportation costs, while maintaining the current level of safety currently achieved under the HMR.

C. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (''Federalism''). Any rule resulting from this rulemaking will preempt State, local and Indian tribe requirements but will not have substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazmat law contains an express preemption provision (49 U.S.C. 5125(b)) that preempts State, local, and Indian tribe requirements on certain covered subjects. Covered subjects are:

(1) The designation, description, and classification of hazardous materials;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;

(3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous materials; or

(5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This final rule addresses covered subject items (1), (2), (3), and (5) above and would preempt State, local, and Indian tribe requirements not meeting the ''substantively the same'' standard. Federal hazmat law provides at section 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. The effective date of Federal preemption for this rule is August 1, 2007.

D. Executive Order 13175

This final rule was analyzed in accordance with the principles and criteria contained in Executive Order 13175 (''Consultation and Coordination with Indian Tribal Governments''). Because this final rule does not have tribal implications and does not impose substantial direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply.

E. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities unless the agency determines the rule is not expected to have a significant impact on a substantial number of small entities. While the requirements in this final rule apply to a substantial number of small entities, there will not be a significant economic impact on those small entities.

Identification of potentially affected small entities. Businesses likely to be affected by the rule are persons who offer for transportation or transport hazardous materials in commerce, including hazardous materials manufacturers and distributors; transportation companies, including air, highway, rail, and vessel carriers; hazardous waste generators; and container and packaging manufacturers.

Unless alternative definitions have been established by the agency in consultation with the Small Business Administration (SBA), the definition of ''small business'' has the same meaning as under the Small Business Act. Because no such special definition has been established, we employ the thresholds published by SBA for establishments that will be subject to the adopted amendments. Based on data for 2002 compiled by the U.S. Census Bureau, upwards of 95 percent of persons that would be affected by this rule are small businesses.

Reporting and recordkeeping requirements. This final rule includes no new requirements for reporting or recordkeeping.

Related Federal rules and regulations. There are no related Federal rules or regulations governing the transportation of hazardous materials in domestic or international commerce.

Alternate proposals for small businesses. The Regulatory Flexibility Act directs agencies to establish exceptions and differing compliance standards for small businesses, where it is possible to do so and still meet the objectives of applicable regulatory statutes. In the case of hazardous materials transportation, it is not possible to establish exceptions or differing standards and still accomplish our safety objectives.

Conclusion. While the final rule will apply to a substantial number of small entities, there will not be a significant impact on those entities. This final rule reorganizes and clarifies the conditions and limitations on the use of international standards and regulations for transporting hazardous materials in the United States. The final rule also removes unnecessary and outdated requirements and includes expanded exceptions to increase shipper flexibility for the transport of hazardous materials to Canada. The exceptions provide increased flexibility for both shippers and carriers and will facilitate the international transportation of hazardous materials, thereby reducing overall transportation costs, while maintaining the safety standard currently achieved under the HMR.

This final rule has been developed in accordance with Executive Order 13272 (''Proper Consideration of Small Entities in Agency Rulemaking'') and DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts of rules on small entities are properly considered.

F. Paperwork Reduction Act

There are no new information collection requirements in this final rule.

G. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN contained in the heading

of this document can be used to cross-reference this action with the Unified Agenda.

H. Unfunded Mandates Reform Act

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $120.7 million or more to either State, local or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of the rule.

I. Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 *et seq.*) requires each Federal agency to consider and analyze the environmental consequences of its actions. The analysis helps determine if the action is a major action that may significantly affect the quality of the human environment.

We regulate hazardous materials transported by aircraft, vessel, rail, and highway. The potential for environmental damage or contamination exists when packages of hazardous materials are involved in accidents or en route incidents resulting from cargo shifts, valve failures, package failures, or loading, unloading, or handling problems. The ecosystems that could be affected by a release include air, water, soil, and ecological resources (for example, wildlife habitats). The adverse environmental impacts associated with releases of most hazardous materials are short-term impacts that can be greatly reduced or eliminated through prompt clean up of the accident scene. Most hazardous materials are not transported in quantities sufficient to cause significant, long-term environmental damage if they are released.

The hazardous material regulatory system is a risk management system that is prevention oriented and focused on identifying a hazard and reducing the probability and quantity of a hazardous material release. Hazardous materials are categorized by hazard analysis and experience into hazard classes and packing groups. The regulations require each shipper to classify a material in accordance with these hazard classes and packing groups; the process of classifying a hazardous material is itself a form of hazard analysis. Further, the regulations require the shipper to communicate the material's hazards through use of the hazard class, packing group, and proper shipping name on the shipping paper and the use of labels on packages and placards on transport vehicles. Thus the shipping paper, labels, and placards communicate the most significant findings of the shipper's hazard analysis. A hazardous material is assigned to one of three packing groups based upon its degree of hazard, from a high hazard, Packing Group I to a low hazard, Packing Group III material. The quality, damage resistance, and performance standards of the packaging in each packing group are appropriate for the hazards of the material transported.

The changes made to the HMR in this final rule will improve the effectiveness of the HMR by clarifying the conditions under which international transport standards and regulations may be used for shipments transported in the United States. When used as authorized in this final rule, the international standards and regulations provide an equivalent level of safety and environmental protection as the HMR. Therefore, there are no significant environmental impacts associated with this final rule.

J. Privacy Act

Anyone is able to search the electronic form of any written communications and comments received into any of our dockets by the name of the individual submitting the document (or signing the document, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78), which may also be found at *http://dms.dot.gov*.

List of Subjects

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

49 CFR Part 172

Education, Hazardous materials transportation, Hazardous waste, Labeling, Markings, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 173

Hazardous materials transportation, Incorporation by reference, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

49 CFR Part 175

Air carriers, Hazardous materials transportation, Incorporation by reference, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 176

Hazardous materials transportation, Maritime carriers, Radioactive materials, Reporting and recordkeeping requirements.

Issued in Washington, DC, on April 16, 2007, under authority delegated in 49 CFR Part 1.

Thomas J. Barrett,

Administrator.

[FR Doc. 07–1959 Filed 5–2–07; 8:45 am]

BILLING CODE 4910–60–P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 172 and 174

[Docket No. PHMSA–RSPA–2004–18730] [1]

RIN 2137–AE02

Hazardous Materials: Enhancing Rail Transportation Safety and Security for Hazardous Materials Shipments

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The Pipeline and Hazardous Materials Safety Administration, in coordination with the Federal Railroad Administration (FRA) and the Transportation Security Administration (TSA), is improving safety by revising the current requirements in the Hazardous Materials Regulations applicable to the safe and secure transportation of hazardous materials by rail. We are requiring rail carriers to compile annual data on certain shipments of explosive, toxic by inhalation, and radioactive materials; use the data to analyze safety and security risks along rail routes where those materials are transported; assess alternative routing options; and make routing decisions based on those assessments. We are also clarifying rail carriers' responsibility to address in their security plans issues related to en route storage and delays in transit. In addition, we are adopting a new requirement for rail carriers to inspect placarded hazardous materials rail cars for signs of tampering or the presence of suspicious items, including improvised explosive devices. We adopted these requirements in an interim final rule published April 16, 2008. This final rule fulfills requirements in Section 1551 of the Implementing Recommendations of the 9/11 Commission Act of 2007. Also, in today's edition of the **Federal Register**, both FRA and TSA are publishing final rules adopting requirements and procedures that promote rail transportation security.

DATES: This final rule is effective December 26, 2008.

FOR FURTHER INFORMATION CONTACT: William Schoonover, (202) 493–6229, Office of Safety Assurance and Compliance, Federal Railroad Administration; or Susan Gorsky or Ben Supko, (202) 366–8553, Office of Hazardous Materials Standards, Pipeline and Hazardous Materials Safety Administration.

SUPPLEMENTARY INFORMATION:

I. Background

On December 21, 2006, the Pipeline and Hazardous Materials Safety Administration (PHMSA) in coordination with the Federal Railroad Administration (FRA) and the Transportation Security Administration (TSA), published a notice of proposed rulemaking (NPRM) under Docket *PHMSA–RSPA–2004–18730* (71 FR 76834) proposing to revise the current requirements in the HMR applicable to the safe and secure transportation of hazardous materials by rail. Specifically, we proposed to require rail carriers to compile annual data on specified shipments of hazardous materials, use the data to analyze safety and security risks along rail routes where those materials are transported, assess alternative routing options, and make routing decisions based on those assessments. We also proposed clarifications of the current security plan requirements to address en route storage, delays in transit, delivery notification, and additional security inspection requirements for hazardous materials shipments.

On April 16, 2008, PHMSA, once again coordinating with FRA and TSA, published an interim final rule (IFR) under Docket *PHMSA–RSPA–2004–18730* (73 FR 20751) that amended the Hazardous Materials Regulations (HMR; 49 CFR Parts 171–180) to establish requirements that enhance the safe and secure transportation of hazardous materials by rail. The IFR requires rail carriers to compile annual data on certain shipments of explosive, toxic by inhalation, and radioactive materials; use the data to analyze safety and security risks along rail routes where those materials are transported; assess alternative routing options; and make routing decisions based on those assessments. It also clarifies that each rail carrier must address issues related to en route storage and delays in transit in its security plan. In addition, the IFR establishes a new requirement for rail carriers to inspect placarded hazardous materials rail cars for signs of tampering or suspicious items, including improvised explosive devices (IEDs).

We published the rulemaking as an IFR to account for changes mandated by the Implementing Recommendations of the 9/11 Commission Act of 2007 (9/11 Commission Act or Act) (Pub. L. 110–53; 121 Stat. 266). Congress enacted the 9/11 Commission Act, which the President signed into law on August 3, 2007, as the final rule was being developed for the Docket *PHMSA–RSPA–2004–18730* proceeding. The 9/11 Commission Act, among other requirements, directed the Secretary of Transportation, in consultation with the Secretary of Homeland Security, to publish a final rule by May 3, 2008, based on a NPRM published under this docket on December 21, 2006. We elected to publish the rule as an IFR rather than a final rule to provide interested persons with an opportunity to comment on changes made to the NRPM that directly relate to the mandates established by the 9/11 Commission Act.

In accordance with Section 1551(e) of the Act, PHMSA's final rule must require rail carriers of ''security-sensitive materials'' to ''select the safest and most secure route to be used in transporting'' those materials, based on the rail carrier's analysis of the safety and security risks on primary and alternate transportation routes over which the carrier has authority to operate. Specifically, the final rule must require such rail carriers to perform the following tasks each calendar year:

(1) Collect and compile security-sensitive commodity data, by route, line segment, or series of line segments, as aggregated by the rail carrier and identify the geographic location of the route and the total number of shipments by UN identification number;

(2) Identify practicable alternative routes over which the carrier has authority to operate as compared to the current route for such shipments;

(3) Seek relevant information from state, local, and tribal officials, as appropriate, regarding security risks to high-consequence targets along or in proximity to a route used by a rail carrier to transport security-sensitive materials;

(4) Consider the use of interchange agreements with other rail carriers when determining practicable alternative routes and the potential economic effects of using an alternative route;

(5) Analyze for both the primary route and each practicable alternative route the safety and security risks for the route, railroad facilities, railroad storage facilities, and high-consequence targets along or in proximity to the route; these analyses must be in writing and performed for each calendar year;

(6) Compare the safety and security risks on the primary and alternative routes, including the risk of a catastrophic release from a shipment

[1] This rulemaking was formerly designated as HM–232E; however, with the transition to a new government-wide regulations portal, docket number nomenclature has since changed. Some references to the old docket number are still present in this document.

traveling along these routes, and identify any remediation or mitigation measures implemented on the primary and alternative transportation routes; and

(7) Use the analysis described above to select the practicable route posing the least overall safety and security risk.

In addition, the Act mandates that PHMSA require a covered rail carrier, at least once every three years, to analyze its route selection determinations, including a comprehensive, system-wide review of all operational changes, infrastructure modifications, traffic adjustments, changes in the nature of high-consequence targets located along or in proximity to the route, or other changes affecting the safety and security of the movements of security-sensitive materials that were implemented since the previous analysis was completed. Finally, the Act mandates that PHMSA require covered rail carriers to retain in writing all route review and selection decision documentation and restrict the distribution, disclosure, and availability of this information to appropriate persons.

In this final rule, we are responding to comments submitted on the IFR that relate to our interpretation and application of § 1551 of the 9/11 Commission Act. To review rulemakings, regulatory evaluations, environmental assessments, comments, or public meeting and congressional briefing transcripts for this docket go to *http://www.regulations.gov* under docket number *PHMSA–RSPA–2004–18730*.

II. Summary of Interim Final Rule

Based on comments received in response to the NPRM and the provisions of the 9/11 Commission Act, the April 16 IFR adopted the following revisions to the HMR:

- Rail carriers transporting certain explosives, poisonous by inhalation (PIH), and radioactive materials must compile information and data on the commodities transported, including the routes over which these commodities are transported.
- Rail carriers transporting the specified hazardous materials must use the data they compile and relevant information from state, local, and tribal officials, as appropriate, regarding security risks to high-consequence targets along or in proximity to a route to analyze the safety and security risks for each route used and practicable alternative routes to the route used.
- Using these analyses, rail carriers must select the safest and most secure practicable route for the specified hazardous materials.
- In developing security plans required under Subpart I of Part 172 of the HMR, rail carriers must specifically address the security risks associated with shipments delayed in transit or temporarily stored in transit.
- Rail carriers transporting the covered hazardous materials must notify consignees of any significant unplanned delays affecting the delivery of the hazardous material.
- Rail carriers must work with shippers and consignees to minimize the time a rail car containing one of the specified hazardous materials is placed on track awaiting pick-up, delivery, or transfer.
- Rail carriers must conduct security visual inspections at ground level of rail cars containing hazardous materials to check for signs of tampering or the introduction of an IED.

The IFR became effective on June 1, 2008. Beginning January 1, 2009, rail carriers must compile information on the commodities they transport and the routes they use for the six-month period from July 1, 2008 to December 31, 2008. Rail carriers must complete their data collection by March 1, 2009. By September 1, 2009, rail carriers must complete the safety and security analyses of routes currently utilized and available alternatives, and select the safest, most secure routes for transporting the specified explosive, PIH, and radioactive materials. Beginning January 1, 2010, and for subsequent years, rail carriers must compile information on the commodities they transport and the routes used for the previous calendar year and complete route assessments and selections by the end of the calendar year.

III. Comments in Response to the Interim Final Rule

We received ten sets of comments in response to the IFR. The majority of the comments were submitted by companies, but we also received comments from a public interest group; a state government agency; a county government agency; a university; and an industry association. Overall, commenters are supportive of the rulemaking and welcome enhanced routing requirements that promote the safe and secure transportation of hazardous materials by rail. A major concern for rail carriers is the requirement for consultation with state, local, and tribal officials, as appropriate. Carriers suggest that it is impractical for railroads to consult on a continuous basis with all local governments along railroad rights-of-way. Several commenters also suggest that DOT establish a process for evaluating transportation safety and security risks across the entire rail transportation system, including facilitating the analysis and selection of routes involving more than one carrier. Some commenters suggest that the Federal government should mandate specific routing for high-hazard materials rather than provide rail carriers the discretion to make routing decisions.

The comments in the docket for this rulemaking may be reviewed at *http://www.regulations.gov* under docket number *PHMSA–RSPA–2004–18730.* For your convenience, a listing of the docket entries is provided below.

Name/company	Docket No.
Contra Costa County Board of Supervisors	PHMSA–RSPA–2004–18730–0203
Friends of the Earth	PHMSA–RSPA–2004–18730–0204
The Dow Chemical Company (Dow)	PHMSA–RSPA–2004–18730–0205
California Public Utilities Commission (CalPUC)	PHMSA–RSPA–2004–18730–0206
The Dow Chemical Company (Dow)	PHMSA–RSPA–2004–18730–0207
Theodore S. Glickman	PHMSA–RSPA–2004–18730–0208
Norfolk Southern Railway Company (Norfolk Southern)	PHMSA–RSPA–2004–18730–0211
The Association of American Railroads (AAR)	PHMSA–RSPA–2004–18730–0212
PPG Industries (PPG)	PHMSA–RSPA–2004–18730–0213
BNSF Railway Company (BNSF)	PHMSA–RSPA–2004–18730–0215

IV. Discussion of Comments and Section-by-Section Analysis

In the following paragraphs, we discuss the comments as they apply to the 9/11 Commission Act and explain the impact of the comments on the regulatory text in this final rule.

A. General (§ 172.820(a))

In accordance with the IFR, rail carriers must implement enhanced safety and security measures for shipments of the following classes and quantities of hazardous materials:

(1) More than 2,268 kg (5,000 lbs) in a single carload of a Division 1.1, 1.2 or 1.3 explosive;

(2) A bulk quantity of a PIH material, as defined in § 171.8 of the HMR; or,

(3) A highway route-controlled quantity of a Class 7 (radioactive) material, as defined in § 173.403 of the HMR.

Two commenters focus on the need to include additional hazardous materials. CalPUC suggests that, while the rule will improve the safety and security of rail shipments of explosive, PIH, and radioactive materials, it will not adequately protect the public from accidents or terrorist acts against other types of hazardous materials. CalPUC recommends that the route selection requirements apply to flammable gases, flammable liquids, hydrogen peroxide over 60 percent, Class 5 materials (ammonium nitrate), Class 6 materials (poisons), Class 8 materials (corrosives), and certain marine pollutants. Contra Costa County raises similar concerns regarding the inclusion of liquefied petroleum gas tank cars.

As discussed in more detail in the IFR, PHMSA, FRA, and TSA assessed the safety and security vulnerabilities associated with the transportation of different types and classes of hazardous materials. The list of materials to which the proposed enhanced safety and security requirements apply is based on specific railroad transportation scenarios. These scenarios depict how hazardous materials could be deliberately used to cause significant casualties and property damage or accident scenarios resulting in similar catastrophic consequences. DOT and TSA determined that the materials specified in the IFR present the greatest rail transportation safety and security risks—because of the potential consequences of an unintentional release of these materials—and are the most attractive targets for terrorists—because of the potential for these materials to be used as weapons of opportunity or weapons of mass destruction. While DOT and TSA agree that materials identified by CalPUC and Contra Costa County pose certain safety and security risks in rail transportation, the risks are not as great as those posed by the explosive, PIH, and radioactive materials specified in the IFR, and we are not persuaded that they warrant the additional precautions required by the IFR. We note that the hazardous materials listed by both commenters are currently subject to the security plan requirements in Subpart I of Part 172 of the HMR. Thus, shippers and carriers of these materials must develop and implement security plans based on an assessment of the transportation security risks posed by the materials. Security plans must include measures to address personnel security, unauthorized access, and en route security. DOT, in consultation with TSA, will continue to evaluate the transportation safety and security risks posed by all types of hazardous materials and the effectiveness of our regulations in addressing those risks and will consider revising specific requirements as necessary.

The IFR applied the route analysis and selection requirements to PIH residue shipments in bulk quantities. Several commenters request that we exclude residue shipments from the list of hazardous materials subject to the rail routing provisions, noting that rail security rules proposed by Transportation Security Administration apply only to full tank car loads of PIH materials. In addition, Dow notes that the term ''bulk quantity'' is not currently defined in the HMR and suggests that if PHMSA decides to regulate residue quantities, we should define the term in the final rule.

As discussed in the IFR, we believe the safety risks posed by the rail transportation of residue quantities of PIH materials should be addressed through enhanced safety requirements, including route assessments. Although target attractiveness from a security standpoint is diminished for residue shipments, significant safety risks persist. We continue to believe that these safety risks are reduced by a requirement for residue quantities of PIH materials remaining in tank cars to travel on the ''best'' route available—the route that considers factors such as population density, emergency response capabilities, environmentally-sensitive and significant areas, and event venues. Dow is correct that the term ''bulk quantity'' is not currently defined in the HMR. Our intention in the IFR was to require residue shipments over 119 gallons to be subject to the route analysis and selection criteria. In attempting to develop a definition for the term ''bulk quantity,'' however, we realized that applying such a definition to shipments of compressed gases, such as chlorine and anhydrous ammonia, would be very difficult. Moreover, rail carriers do not have the capability to ascertain the precise amount of residue that may remain in a rail tank car; thus, attempting to distinguish residue shipments that would be subject to the routing requirements from residue shipments that would not would be virtually impossible. For these reasons, in this final rule, we are clarifying that the data collection, route analyses, and route selection requirements apply to shipments of PIH materials, including residue shipments, in a bulk packaging. We note that there will be few, if any, rail routes over which only residue quantities of PIH travel. It is likely that the routes used to transport these residue shipments also carry fully loaded packages of PIH or one of the other hazardous materials covered by this rulemaking, and that the routes would therefore be included in a route analysis.

B. Commodity Data (§ 172.820(b))

The IFR requires rail carriers to begin compiling commodity data by no later than 90 days after the end of the calendar year for the previous calendar year for the covered hazardous materials, including an identification of the routes utilized and the total number of shipments transported. The data are to be used by the rail carriers to identify the routes over which the specified hazardous materials are transported and the number of shipments utilizing each route. Rail carriers are required to analyze the safety and security risks of the routes identified. This provision of the IFR is consistent with the 9/11 Commission Act mandate that rail carriers collect and compile security-sensitive commodity data, by route, line segment, or series of line segments, as aggregated by the rail carrier, and identify the geographic location of the route and the total number of shipments by UN identification number. We did not receive comments addressing this aspect of the IFR. Therefore, in this final rule, we are adopting the commodity flow data collection requirements without change.

AAR requests clarification of the actual date by which the commodity flow data must be compiled in 2009. In addition, AAR seeks clarification of IFR preamble language stating, ''For the initial route analysis, we anticipate rail carriers will review the prior two-year period when considering the criteria contained in Appendix D.'' (73 FR 20762).

Section 172.820(b) requires commodity data to be compiled no later than 90 days after the end of the calendar year; in 2009 the data must be compiled by March 31. In addition, this section requires the initial data to cover six months, from July 1, 2008 to January 31, 2008. PHMSA's preamble language indicating that we anticipate that carriers will review the data from the prior two years when conducting route analysis was our opinion based on knowledge of the data that rail carriers routinely collect. For their initial analysis, rail carriers are only required to collect data from the six-month period described in this section, additional data may be included, but is not required by the IFR or this final rule. As discussed in more detail below, in this final rule we are providing rail carriers the option to use data for all of 2008 in conducting their initial route analyses. If a rail carrier elects to utilize this option, its route analysis and selection process must be completed by March 31, 2010.

C. Rail Transportation Route Analysis (§ 172.820(c))

The IFR requires rail carriers to use the data collected in accordance with § 172.820(b) to analyze the rail routes over which the specified materials are transported. Carriers must analyze the specific safety and security risks for routes identified in the commodity data and the railroad facilities along those routes. Consistent with the 9/11 Commission Act, they are required to seek relevant information from state, local, and tribal officials regarding the security risks to high-consequence targets along or in proximity to the route(s) utilized. If a rail carrier is unable to acquire relevant information from state, local, or tribal officials, then it must document that in its analysis. The route analyses must be in writing and consider, at a minimum, a number of factors specific to each individual route. A non-inclusive list of factors is provided in Appendix D to Subpart I of Part 172.

Several commenters express concern regarding the IFR requirement to seek relevant information from state, local, and tribal officials regarding the security risks to high-consequence targets along or in proximity to a rail transportation route. Contra Costa County suggests that state and local governments be given the opportunity to consult with the railroads and provide all relevant information, rather than be limited to providing specific data requested by the railroads. According to Contra Costa County, local governments should have access to the person who is managing the route analysis so they may request a consultation with the railroad or provide information that goes beyond the specific data requested by the railroad. In addition, Contra Costa County suggests that the final rule specify the types of local agencies that will be part of the consultation process.

By contrast, Norfolk Southern indicates that emergency response capability would be best served by receiving communication from a single state agency, preferably the state homeland security agency. Norfolk Southern also expresses concern regarding the overwhelming amount of state and local correspondence railroads are likely to receive as a result of this requirement. Norfolk Southern suggests the creation of individual railroad Web sites that allow state and local governments to provide data and information that rail carriers should consider when they conduct route evaluations. Similarly, AAR suggests that the Department of Homeland Security (DHS) designate high-consequence targets along railroad lines and serve as the main source of information on security risks to high-consequence targets. AAR also suggests that communication between railroads and state and local governments should, for the most part, be led by a single state agency that advises the railroads on security matters concerning the state and its local governments.

As we noted in the IFR, among the factors to be considered by rail carriers in conducting the safety and security analysis are population density along the route; environmentally-sensitive or significant areas; venues along the route (stations, events, places of congregation); emergency response capability along the route; measures and countermeasures already in place to address apparent safety and security risks; proximity to iconic targets; and areas of high consequence along the route. State and local governments may well be able to assist rail carriers in identifying and assessing this type of information. Moreover, state and local government entities may also be able to assist rail carriers in addressing any safety or security vulnerabilities identified along selected routes, in the scheduling of public events, for example, or enhancing emergency response capabilities. For these reasons, we agree with commenters that rail carriers should seek the broadest possible input from state and local governments as they conduct route analyses. We also agree with Contra Costa County that designation of a single point of contact for routing issues at each railroad would help to facilitate communication and interaction between rail carriers and state and local governments.

At the same time, we recognize the difficulties that rail carriers may encounter in seeking information from every community along a given route and appreciate the need to simplify such interactions to the greatest extent practicable. We believe that rail carriers should have the flexibility to establish mechanisms to accomplish the required consultations that are tailored to each railroad's specific circumstances, routes, and operating environments. Web-based systems for providing and assessing state and local concerns, as suggested by Norfolk Southern, are certainly options that may prove to be very effective. Alternatively, a railroad may wish to work with state governments to establish a state government focal point for consolidating and communicating local government concerns.

Since 2003, many states and larger cities have created State and Local fusion centers, and States have created regional fusion centers to share security and first responder information and intelligence within their jurisdictions as well as with the Federal government. Fusion centers vary from State to State, but most contain similar elements, including members of State law enforcement, public health, social services, public safety, and public works organizations. Increasingly, Federal agencies such as the Department of Homeland Security, Federal Bureau of Investigation, Drug Enforcement Administration, and Bureau of Alcohol Tobacco, Firearms, and Explosives have stationed representatives at State-level fusion centers. Most centers operate as ''all hazard'' centers, addressing all types of emergencies, and not just those that might be related to homeland security or terrorism. As of March 2008, there were 58 fusion centers around the country.

Railroads have been coordinating with these fusion centers on railroad police and security issues, and the Federal government has officially recognized the importance of these centers in addressing security issues. The 9/11 Commission Act recognized the importance of fusion centers and established a DHS State, Local, and regional fusion center initiative to foster partnerships between centers at all levels of government. Specific language provided at 6 U.S.C. 124(h) establishes: (1) DHS responsibility to support and coordinate with the fusion centers; (2) authority and guidelines for assigning DHS personnel to state fusion centers; (3) uniform guidelines for fusion centers; and (4) funding of $10 million

per year for each of fiscal years 2008–2012 to carry out the Fusion Center Initiative. Since 2001, the Federal government has provided some $380 million to help fund fusion centers that meet guidelines jointly established by DHS and the Department of Justice.

In this final rule, in response to comments related to simplifying and facilitating coordination on routing issues between rail carriers and state and local governments, PHSMA is modifying the IFR to require rail carriers to designate a single point of contact (including the name, title, phone number and e-mail address) on routing issues, and to provide this information to: (1) The State and regional fusion centers located in the portion of the country encompassed by their rail systems; and (2) State, Local, and Tribal officials in jurisdictions that may be affected by a rail carrier's routing decisions who directly contact the railroad to discuss these decisions.

States, Local Governments, and Indian tribes may contact the State and regional fusion centers to obtain rail carriers' point of contact information. The Department of Homeland Security's National Operation Center is available 24 hours a day to facilitate public and private entities locating and contacting their State or regional fusions centers; the Center's contact number is (202) 282–8101. States, Local Governments, and Indian tribes will have the flexibility to directly consult with rail carriers on matters affecting the railroads' routing decisions, or channeling this information to the railroads through the fusion centers.

PHMSA and FRA note that we are working with DHS to provide railroads with information regarding high-consequence targets, as specified in the 9/11 Commission Act.

The AAR reiterates its comment that PHMSA should adopt a shipment threshold to trigger the route analysis requirement. Specifically, AAR suggests that if there are no more than 15 shipments along a particular route then the route analysis established by the IFR should not be required. AAR comments utilizing such a threshold eliminates unnecessary analysis of routes used only in emergencies and other unique circumstances.

As we stated in the IFR, we are declining to adopt such a threshold. We understand that there may be times when a route is used that would not normally be used in the everyday course of business, and we would expect the analysis to demonstrate that the routing was out of the ordinary. We believe there is utility in doing such an analysis even on a little-used route. Traffic densities and circumstances may change, and natural disasters such as floods and hurricanes may occur. There is an advantage in knowing the characteristics, risks and necessary mitigating measures for a route that may have to be used, even in temporary emergency circumstances.

D. Alternative Route Analysis (§ 172.820(d))

Consistent with 9/11 Commission Act requirements, the IFR requires carriers to analyze and assess the feasibility of all available alternative routes over which they have authority to operate in addition to the routes normally and regularly used for hazardous materials movements. Practicable routes (or routes that are feasible options, both logically and commercially) must be identified and analyzed using, at a minimum, the Rail Risk Analysis Factors of Appendix D to Part 172. Rail carriers must retain a copy (or an electronic image thereof) of all route review and selection decision documentation used when selecting the safest and most secure practicable route available. This documentation should include, but is not limited to, comparative analyses, charts, graphics, or rail system maps.

In accordance with § 1551 of the 9/11 Commission Act, alternative routes must consider the use of interchange agreements. For the purposes of route selection, interchange agreements allow railroads to exchange railcars at specified junction point where rail lines of two or more different railroads meet. Interchange agreements may increase the number of available routes for certain shipments. Routes that utilize interchange agreements may provide a safer, more secure routing option than would otherwise be available.

Overall, rail carriers must account for safety and security risks; comparison of safety and security risks to the primary route, including the risk of catastrophic release; any remediation or mitigation measures taken; and potential economic effects. The goal of the routing analysis requirement is to require that each route used for the transportation of the specified hazardous materials is the one presenting the fewest overall safety and security risks. If the use of an alternative route would significantly increase a carrier's operating costs, as well as the costs to its customers, the carrier should consider and document the cost in its route analysis.

We received several comments on this section of the IFR. One area of concern for commenters is the role that economic factors play in selecting ''practicable'' alternative routes. Friends of the Earth asserts that these requirements will spare railroads from any inconvenience or even minor expense in having to re-route cargoes onto available alternative routes and suggests that we have put ''practicability'' on par with safety and security. CalPUC contends that it is not reasonable to make costs to railroads and shippers the ultimate determinant for routing decisions and suggests that in doing so, we have excluded the overall costs and damages to the nation and its population in general. Contra Costa County asserts that the IFR provides too much opportunity for the railroads to let economic concerns drive the process. According to Contra Costa County, the railroads should be required to analyze all possible routes on safety factors alone to determine the safest route.

We do not agree that the consideration of the ''practicability'' of specific routes will result in routing decisions that are driven solely by economic considerations. Rail carriers must assess available routes using the 27 factors listed in Appendix D to Part 172 to determine the safest, most secure routes. The factors address both safety and security issues, such as the condition of the track and supporting infrastructure; the presence or absence of signals; past incidents; population density along the route; environmentally-sensitive or significant areas; venues along the route (stations, events, places of congregation); emergency response capability along the route; measures and countermeasures already in place to address apparent safety and security risks; and proximity to iconic targets. However, when carriers consider the ''practicability'' of a specific route some consideration must be given to economic factors. We note in this regard that the Congress recognized this by including in § 1551(d) of the 9/11 Commission Act a requirement for the alternative route analyses to include the potential economic effects of using an alternative route. In accordance with the IFR, rail carriers must balance economic factors with safety and security factors in making route selections. If using a possible alternative route would significantly increase a carrier's operating costs, as well as the costs to its customers, the carrier should consider and document these facts in its route analysis.

Several commenters address the use of interchange agreements between rail carriers when determining practicable alternative routes. Friends of the Earth asserts that the key flaw in the IFR is that it does not force a railroad to ''interchange'' its most dangerous cargo

over to another railroad to go around a target city. Theodore Glickman suggests that because we require railroads to consider only routes over which they have authority to operate, we are missing an opportunity for identifying routes that reduce time in transit and pose fewer safety and security risks. PPG states that carriers should be required to work together to select the safest, most secure routes. Dow and AAR both suggest that we consider mechanisms, including 49 U.S.C. 333, that would assist a rail carrier in analyzing the safety and security risks of an alternative route over which it has no authority to operate. AAR notes that the § 333 conference discussed in the IFR appears to be the best way to conduct discussions of rerouting through interchanges.

The requirement in the IFR for railroads to consider interchange agreements as they identify and assess alternative routes is consistent with the 9/11 Commission Act. The Act does not mandate the use of interchange agreements. However, we agree with Dow and AAR that safety and security would be further enhanced if rail carriers could together evaluate the safety and security of routes across the entire rail transportation system. We also agree that utilizing existing statutory authority under 49 U.S.C. 333, which provides relief for potential antitrust concerns, provides a mechanism to facilitate a systems approach to evaluating and mitigating safety and security risks. Section 333 authorizes the FRA Administrator, as delegate of the Secretary of Transportation, to convene conferences at the request of one or more railroads to address coordination of operations and facilities of rail carriers in order to achieve a more efficient, economical, and viable rail system. Persons attending a § 333 conference are immune from antitrust liability for any discussions at the conference, and can also receive immunity for any resulting agreements that receive FRA approval. As discussed in the IFR, in 2005, FRA convened a conference under this authority to discuss ways to minimize security and safety risks associated with the transportation of PIH materials. FRA plans to consider ways to expand this conference to provide a forum for rail carriers to evaluate the safety and security of the covered hazardous materials across the entire rail system, and specifically to evaluate risk-reducing arrangements on a national scale. FRA will also consider including shippers as part of the conference.

We continue to believe that the route analyses and selection requirements in the IFR will reduce safety and security risks associated with the rail transportation of explosive, PIH, and radioactive materials. We are not convinced that mandating the use of interchange agreements as part of this process is the most effective way to reduce risk across the entire rail transportation system. Rather, we believe that the next step should be the joint shipper-carrier consultations described above. Therefore, we are adopting the alternative route analysis requirements as established by the IFR.

E. Route Selection (§ 172.820(e))

Consistent with requirements in the 9/11 Commission Act, the IFR requires a carrier to use the analysis, including any remediation measures implemented on a route, to select the route posing the least overall safety and security risk. In selecting a route, the carrier must analyze the safety and security risk for both the primary route and each practicable alternative route including railroad facilities, railroad storage facilities, and high-consequence targets along or in proximity to the route. The analyses must be in writing and performed for each calendar year. Carriers must compare the safety and security risks on the primary and alternative routes, including the risk of a catastrophic release from a shipment traveling along these routes, and identify any remediation or mitigation measures implemented on the primary and alternative transportation routes. The route selection documentation and underlying data will qualify as sensitive security information (SSI), will be handled in accordance with the SSI regulations at 49 CFR Parts 15 and 1520, and may be distributed only to ''covered persons'' with a ''need to know.'' State and local government officials generally are considered to be ''covered persons'' with a ''need to know'' for purposes of sharing data and information applicable to a railroad's route analysis.

One commenter, Contra Costa County, suggests that the analysis and route selection performed by the rail carriers should be made available to local law enforcement, fire, and public health/hazardous materials officials. It also suggests that a distribution chain be established so these agencies can review the route analysis methodology and results of the railroads.

Similar comments were addressed during the IFR stage of this rulemaking proceeding. Specifically, in its comments on the December 2006 NPRM, the City of Cleveland, Ohio, suggested that we revise the proposal in the NPRM to require rail carriers to share the commodity data with local governments responsible for the geographic areas through which hazardous materials are transported. In the preamble to the IFR, we agreed that state and local governments should have access to such information, provided access to the information is limited to those with a ''need to know'' for transportation safety and security purposes, and further provided that such information may not be publicly disclosed pursuant to any state, local, or tribal law. (73 FR 20759). Again, as part of a vulnerability assessment, the commodity data that will be collected by the railroads will qualify as SSI and will be handled in accordance with those regulations. Because of the security sensitivity of the data and route selection information, it is not appropriate for it to be broadly disclosed to government or private entities. State and local governments may contact FRA to voice concerns and request an inspection of a route plan, security vulnerability, or, more generally, a rail carrier.

Some of the comments raise issues discussed in the IFR, including the availability of rail routing tools and accounting for persons that are more susceptible to exposure from the listed hazardous materials. Contra Costa County asks that rail routing tools be made available to local parties upon request, along with an explanation of how the tool functions and suggests that local governments have an opportunity to appeal the railroad's finding, through a process identified in the final rule for resolving disputes.

Tools used by railroads to complete the route analyses and selection process mandated by this rule will include sensitive information that should not be broadly disseminated. However, we agree that sharing information with state or local government officials about how a rail carrier performed its route analysis and made its route selections could be beneficial to both the carrier and the affected government jurisdictions. Such information will qualify as SSI and must be handled in accordance with SSI regulations, but nothing in this final rule is intended to prohibit sharing of this information upon request to ''covered persons'' with a ''need to know.''

We do not believe it is necessary to provide a separate process for local governments to appeal railroad route selections to FRA. FRA has a process in place under which state and local governments may contact FRA to voice concerns about route selections and request an inspection of a route plan, security vulnerability, or, more generally, a rail carrier.

In its comments, AAR suggests that we clarify the meaning of the statement ''subpopulations particularly susceptible to such risk and/or more highly exposed'' as used in the preamble of the IFR in regard to the population included in the rail carrier's route selection analysis. (73 FR 20763). When assessing the safety and security risks along a specific route, carriers must consider possible impacts to the total population in proximity to that route. In addition, carriers should consider possible impacts on subpopulations—such as children or the elderly—if there are locations or facilities such as schools, hospitals, or assisted living facilities along the route or if such subpopulations are a disproportionate part of the population as a whole.

Some commenters, including BNSF, suggested that PHMSA should dictate to the carriers the routes to be used for transportation of the covered hazardous materials. BNSF has also suggested that once FRA has completed its review of a rail carrier's route selection, the route selected by the carrier should be classified as an approved route. The 9/11 Commission Act does not direct the Federal Government to mandate specific rail routes for security-sensitive materials; rather § 1551 of the Act specifically directs the Secretary of Transportation to, through this final rule, require *rail carriers* to select the safest and most secure routes for the movement of these materials. We continue to believe that rail carriers are in the best position to select the safest and most secure routes, taking into consideration mitigation measures that they may wish to implement to address safety and security vulnerabilities they identify.

As explained in the IFR, we are not requiring rail carriers to submit their route analyses and route selections to DOT for approval. Federal review and approval of these analyses would be resource-intensive and time-consuming and could result in shipment delays if a rail carrier had to await approval from DOT prior to transporting hazardous materials along the routes it identified as posing the fewest safety and security risks. Moreover, the 9/11 Commission Act does not provide for an approval process for route selections made by rail carriers. That being said, we intend to aggressively oversee railroads' route analyses and route selection determinations and will use all available tools to enforce compliance with the rule. As the agency with primary responsibility for railroad safety enforcement, FRA will incorporate review and inspection of route analyses and selections into its inspection programs. FRA inspectors may offer suggestions for modifying or improving the analysis or make changes to a route if the route selection documentation or underlying analysis is found to be deficient. If an inspector's recommendations are not implemented, FRA may compel a rail carrier to make changes and/or assess a civil penalty. Further, if the carrier's chosen route is found not to be the safest and most secure practicable route available, FRA may require the use of an alternative route.

After consideration of comments received, in this final rule, we are adopting the requirements applicable to route selection as established by the IFR.

F. Completion of Route Analysis (§ 172.820(f))

The IFR requires rail carriers to conduct their initial rail transportation route analysis, alternative route analysis, and route selection by September 1, 2009, based on routing data for the six month period from July 1, 2008 to December 31, 2008. In subsequent years, the rail transportation route analysis, alternative route analysis, and route selection, including a comprehensive review of all operational changes, infrastructure modifications, traffic adjustments, or other changes implemented, must be conducted no later than the end of the calendar year following the year to which the analyses apply.

In its comments, AAR suggests that the September 1, 2009, deadline for completing an initial route analysis and route selection may be difficult for rail carriers to meet. AAR explains that the first set of analyses will be resource-intensive and time-consuming and that subsequent analyses will be less so because they can build off previous analyses. AAR suggests that its member railroads would be willing to analyze data for a full year in 2009 (data for all of 2008) in return for elimination of the special September 1 deadline for route analyses in 2009.

We recognize that the IFR established an aggressive timeline for completion of an initial route analysis and route selection process. The IFR provides over 16 months (from April 16, 2008 to September 1, 2009) for completion of this process. We believe that the safety and security risks addressed in the IFR warrant an aggressive approach. However, we recognize that in some cases the last six months of 2008 data may not accurately reflect the seasonality of the rail movement of certain PIH materials (such as anhydrous ammonia) on some carriers, and that an analysis of data for all of 2008 may help facilitate the review in the subsequent year. In this final rule, therefore, we are providing the following options for completing the initial route analysis, alternative route analysis, and route section: (1) A rail carrier may complete the process by September 1, 2009, as established in the IFR, using data for the six month period from July 1, 2008 to December 31, 2008; or (2) a rail carrier may complete the process by March 31, 2010, using data for all of 2008, so long as the rail carrier notifies FRA in writing by September 1, 2009, that it has chosen this second option.

Several commenters also addressed our decision to require rail carriers to conduct an annual comprehensive review of the route analysis and selection process rather than once every three years. Section 1551(g) of the 9/11 Commission Act requires rail carriers to perform a comprehensive review of its route selection determinations at least once every three years. The analysis is to include a system-wide review of all operational changes, infrastructure modifications, traffic adjustments, changes in the nature of high-consequence targets located along or in proximity to the route, and any other changes affecting the safety and security of the movement of security-sensitive materials that were implemented since the previous analysis was completed.

Dow requests that we amend the IFR to require the comprehensive review to be completed once every three years. Dow suggests that PHMSA lacks support in the current administrative record to impose an unduly burdensome annual comprehensive review requirement. On the other hand, CalPUC provided comments in strong support of the requirement to perform comprehensive reviews on an annual basis.

As we indicated in the IFR, we believe there is value in conducting an annual review of the route analysis even in the absence of changes to the way a carrier operates. Conditions along the selected routes may change, for example, or there may be changes affecting other factors utilized in the analyses, such as incidents on the selected route, the capabilities of local emergency response agencies, or venues located in proximity to the selected route. Again, performance of the initial data gathering and analysis will be the most burdensome. We expect that the subsequent yearly analyses will build on the initial analysis and will be easier to do. Therefore, we are adopting the annual comprehensive review

requirement as established by the IFR in this final rule.

G. Storage, Delays in Transit, and Notification (§ 172.820(g))

The IFR clarifies that rail carriers must address delays in transit and *en route* storage in their security plans. Thus, rail carrier security plans must include: (1) A procedure for consulting with offerors and consignees to minimize the time a material is stored incidental to movement; (2) measures to limit access to the materials during storage and delays in transit; (3) measures to mitigate risk to population centers during storage incidental to transportation; (4) measures to be taken in the event of an escalating threat level during storage incidental to transportation; and (5) a procedure that is acceptable by both the rail carrier and consignee for notifying the consignee in the event of transportation delays.

The IFR included language to the effect that all affected parties should agree upon measures to be implemented by the rail carriers to minimize the time that PIH, explosive, and radioactive materials are stored in transit. In its comments, AAR suggests that this provision of the IFR unnecessarily restricts rail carriers' flexibility. According to AAR, customers often lack incentive to reduce storage on railroad property because of their own lack of storage capacity. AAR notes that railroads welcome opportunities to discuss with their customers ways of minimizing the extent to which cars may be delayed on railroad property due to the inability of their customers to receive cars. Norfolk Southern agrees with AAR's comments and adds that if the parties cannot agree, then the railroad carrier must have the final say concerning storage occurring on the railroad's own property.

The intent of the requirement in § 172.820(g)(1) is to establish a procedure that provides an opportunity for offerors and consignees to work with rail carriers to minimize incidental storage of shipments. It was not our intention to limit a carrier's flexibility concerning the storage of rail cars on railroad property. We are aware that rail carriers have worked closely with TSA to voluntarily implement measures to reduce the number of hours PIH cars are held in high-threat urban areas. Therefore, in this final rule, we are removing the sentence in § 172.820(g)(1) that suggests that all parties should agree on measures to be implemented to minimize the time that rail cars are stored in transit.

AAR also requests clarification of the phrase ''formally consult,'' as it applies to the rail carriers working with offerors and consignees to minimize storage incidental to transportation. The requirement for a ''formal'' procedure should not be read to imply that rail carriers must develop an agenda for the meeting or maintain documentation to keep a record of the consultation. By requiring that the process be formal, we are simply indicating that rail carriers must make offerors and consignees fully aware of the process and how it will work. The procedure should involve offerors and consignees when storage decisions are made that directly affect their operations. The consultation requirement may be met as part of the normal course of communication between the railroad and its customers.

H. Recordkeeping (§ 172.820(h))

Consistent with requirements in the 9/11 Commission Act, in the IFR, we require each rail carrier to maintain an accessible copy of the information and analyses associated with the collection of commodity data and route assessment and selection processes. We further require the distribution of such information to be limited to ''covered persons'' with a ''need to know'' in accordance with SSI regulations in 49 CFR Parts 15 and 1520. There were no comments in response to this paragraph; therefore, we are adopting it as established by the IFR.

I. Compliance and Enforcement (§ 172.820(i))

In the IFR, we require carriers to revise their analyses or make changes to a route if the route selection documentation or underlying analyses is found to be deficient. In addition, if the carrier's chosen route is found not to be the safest and most secure practicable route available, the FRA Associate Administrator for Safety, in consultation with TSA, may require the use of an alternative route until such time as identified deficiencies are satisfactorily addressed. FRA and TSA will consult with the Surface Transportation Board regarding whether the contemplated alternative route(s) would be economically practicable.

One commenter specifically addressed the requirements in this section. AAR asks if field inspectors will have the capability to perform route analyses. It suggests that the level of detail involved in the route analysis would make it difficult for inspectors to have the capability to perform route analyses during an inspection. AAR recommends that Federal agencies should designate the employees requiring access to route analyses and provide the railroads with a list of those employees to facilitate coordination between the railroads and Federal agencies.

FRA will continue to coordinate closely with the railroads in its inspection and enforcement activities, including review of security plans and route analyses. We note concerning the AAR comments that FRA's enforcement role is to review the railroads' analyses, not to perform them. FRA employees will be capable of reviewing a rail carrier's route analyses and route selections to ensure compliance with the requirements of this final rule. Further, FRA and its employees will comply with the existing SSI regulations with regard to the handling of the route analyses and the underlying commodity data. Only FRA employees who are ''covered persons'' with a ''need to know'' under the SSI regulations at 49 CFR Parts 15 and 1520 will access the routing analyses and data. 9 CFR Part 1 outlines enforcement authority for the modal administrations within DOT. In the hazardous materials arena, modal administrations share broad authority over all modes regardless of agency. In accordance with a DOT-wide memorandum of understanding that delineates normal areas of activity for each modal administration, FRA expects to utilize inspectors from various disciplines as well as other modal partners when evaluating rail carrier compliance with these regulations.

In addition, FRA plans to work closely with TSA to develop a coordinated enforcement strategy to include both FRA and TSA inspection personnel. We note in this regard that while TSA has broad responsibility and authority under the Aviation and Transportation Security Act for security in all modes of transportation, TSA does not have the authority to enforce safety or security requirements established in the HMR. If in the course of an inspection of a railroad carrier or a rail hazardous material shipper, TSA identifies evidence of non-compliance with a DOT security regulation, TSA will provide the information to FRA and PHMSA for appropriate action. TSA will not directly enforce DOT security rules and will not initiate safety inspections. In accordance with the PHMSA–TSA and FRA–TSA annexes to the DOT–DHS MOU, all the involved agencies will cooperate to ensure coordinated, consistent, and effective activities related to rail security issues.

Another commenter, PPG, fully supports the intent of this rulemaking and believes it will aid in the safe and secure transportation of hazardous materials. However, PPG questions whether a risk assessment is necessary

before a rail carrier can accept a shipment for a new route The concern is that the rail carrier will have the right to refuse to accept a shipment until a risk assessment can be done. According to its comments, PPG does not believe this is the intent of the rule but wants some assurance that the rail carriers cannot refuse a shipment based on this rulemaking.

We do not intend for the provisions of this rule to impede the everyday commerce of hazardous materials, or to change the common carrier obligation of the railroads to handle security-sensitive materials that shippers tender to them for shipment. In the event that a railroad accepts a new shipment with a new route, we would expect the railroad to document this new data in its annual data compilation, and to note any new routes, risk factors, and mitigation measures in its analysis. Since new routes are often discussed long before the initial shipment, if the carrier has knowledge of the expected shipments when it conducts its initial or subsequent reviews it should include this information as part of the decision-making process.

J. Federal Preemption (§ 172.822)

We addressed the preemptive effect of the IFR by clarifying that state and local regulation of rail routes for shipments of hazardous materials is preempted under both the Federal Hazardous Materials Transportation Law (Federal Hazmat Law; 49 U.S.C. 5125) and the Federal Rail Safety Act (49 U.S.C. 20106). All comments that were addressed supported the proposed language; therefore, we are adopting it as established by the IFR.

K. Rail Risk Analysis Factors (Appendix D to Part 172)

The IFR adopts minimum criteria in Appendix D to Part 172 to be used by rail carriers when performing the safety and security risk analyses required by § 172.820. We listed 27 factors in this appendix for carriers to consider in the analyses. The IFR adopted the 27 factors as proposed in the NPRM, with modifications for consistency with requirements of the 9/11 Commission Act. Specifically, the IFR added high consequence targets, as defined in § 1551(h)(2), to the list of factors that must be considered.

The comments submitted in response to this section reiterate comments made to the NPRM. BNSF expresses concern that the IFR does not provide any direction as to how the 27 factors are to be prioritized and requests that PHMSA provide guidance on the comparative weight or prioritization that it assigns to each factor. Theodore Glickman suggests that the 27 factors far exceed the number that should be included and recommends that emphasis should be placed on the identification of the most important factors and developing the database required to evaluate those factors. In its comments, Norfolk Southern expresses support for the factors and agrees with the agency's decision not to arbitrarily weight or rank the factors and recognize that weighting of the individual factors listed in Appendix D may vary upon the circumstances and/or the region in which the rail carrier operates.

As we stated in the IFR, the weighting of the factors is an extremely important aspect of an overall safety and security risk assessment methodology. However, we do not believe that prioritizing or limiting the number of factors will allow rail carriers the flexibility necessary to account for unique track conditions and localized concerns. We expect carriers to make conscientious efforts to develop logical and defendable systems using these factors. Tools to assist rail carriers to use the factors to assess the safety and security vulnerabilities of specific routes, including how to weight the factors in performing the analysis, are available from a variety of sources. In addition, DOT and DHS are finalizing a route analysis tool under a grant from the Federal Emergency Management Agency (FEMA). This web-based, interactive tool will assist rail carries to identify route characteristics using the 27 factors and to weigh safety and security impacts, thereby providing a standardized, consistent approach to the process of selecting safe and secure rail routes for high-risk hazardous materials. In addition, the tool provides a methodology for assessment of consequences for a specific commodity released at a specific point on a rail line; assessing natural hazard risks for a specific rail asset; and for corridor analysis entailing a review of all route or asset analysis results for a given rail corridor (i.e., geographic area). We expect this analysis tool to be available in 2008.

We addressed similar comments regarding the rail risk analysis factors in the IFR. After thoroughly reviewing the comments submitted in response to the IFR, we are confident that the list of rail risk analysis factors is sufficient. The flexibility provided is necessary to allow rail carriers to fully assess the potential routes. Therefore, this final rule adopts Appendix D to Part 172 as established by the IFR.

L. Pre-Trip Security Inspections (§ 174.9)

The IFR increases the scope of the currently required rail car safety inspection to include a security inspection of all rail cars carrying placarded loads of hazardous materials. The primary focus of the enhanced inspection is to recognize an IED, which is a device fabricated in an improvised manner incorporating explosives or destructive, lethal, noxious, pyrotechnic, or incendiary chemicals in its design, and generally including a power supply, a switch or timer, and a detonator or initiator. The IFR requires the rail carriers' pre-trip inspections of placarded rail cars to include an inspection for signs of tampering with the rail car, including its seals and closures, and an inspection for any item that does not belong, is suspicious, or may be an IED. When an indication of tampering or a foreign object is found, the rail carrier must take appropriate actions before accepting the rail car for further movement; the carrier will verify that the rail car is secure and its contents have not been compromised. Instructional materials have been developed by TSA that may be used by rail carriers to train their employees on detection of tampering and identification of IEDs. The comments submitted in response to the IFR do not address the pre-trip security inspections. Therefore, we are adopting § 174.9 as established by the IFR.

VII. Regulatory Analyses and Notices

A. Statutory/Legal Authority for This Rulemaking

This final rule is published under authority of the Federal Hazmat Law. Section 5103(b) of Federal Hazmat Law authorizes the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous materials in intrastate, interstate, and foreign commerce. In addition, this final rule is published under authority of the 9/11 Commission Act. Section 1551 of the 9/11 Commission Act directs the Secretary of Transportation, in consultation with the Secretary of Homeland Security, to publish a final rule by May 3, 2008, based on the NPRM published under this docket on December 21, 2006. In accordance with § 1551(e) of the Act, PHMSA's final rule must require rail carriers of ''security-sensitive materials'' to ''select the safest and most secure route to be used in transporting'' those materials, based on the rail carrier's analysis of the safety and security risks on primary and alternate transportation routes over

which the carrier has authority to operate.

B. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is a significant regulatory action under § 3(f) Executive Order 12866 and, therefore, was reviewed by the Office of Management and Budget (OMB). The final rule is a significant rule under the Regulatory Policies and Procedures order issued by the DOT (44 FR 11034). We completed a regulatory evaluation and placed it in the docket for this rulemaking.

Generally, costs associated with the provisions of this final rule include the cost for collecting and retaining data and performing the mandated route safety and security analysis. We estimate total 20-year costs to gather the data and conduct the analyses established by this final rule to be about $20 million (discounted at 7%).

In addition, rail carriers and shippers may incur costs associated with rerouting shipments or mitigating safety and security vulnerabilities identified as a result of their route analyses. Because the final rule builds on the current route evaluation and routing practices already in place for most, if not all, railroads that haul the types of hazardous materials covered, we do not expect rail carriers to incur significant costs associated with rerouting. The railroads already conduct route analyses and re-routing—in line with what this rule would require—in accordance with the AAR comments and AAR Circular OT–55–I. Moreover, the smaller carriers (regionals and short lines) are unlikely to have access to many alternative routes, and where an alternative does exist, it is not likely to be safer and more secure than the route they are currently using. If there is an alternative route the carrier determines to be safer and more secure than the one it is currently using, the carrier could well switch routes, even in the absence of a regulatory requirement, because it reduces the overall risk to its operations. Such reduction in risk offers a significant economic advantage in the long run.

Identifying and mitigating security vulnerabilities along rail routes are currently being done by the railroads. We believe that readily available ''high-tech'' and ''low-tech'' measures are being quickly implemented. The development, procurement, and wide-spread installation of the more technology-driven alternatives could take several years. However, PHMSA's previous security rule requires the railroads to have a security plan that includes en route security. This existing regulatory requirement, coupled with industry efforts to address security vulnerabilities, has caused railroads to enhance their security posture. As with routing decisions, such reduction in risk offers a significant economic advantage in the long run. Therefore, we expect that the cost of mitigation attributed solely to this final rule will not be significant. We note in this regard that safety and security measures are intertwined and often complementary; therefore, separating security costs from safety costs is not feasible.

We do not expect this final rule to result in a diversion from railroads to trucks. For the movements subject to this rule, transportation and distribution patterns, with associated infrastructure, tend to be well-established. For example, the vast majority of PIH offerors ship by rail; indeed, many do not have the infrastructure (loading racks, product transfer facilities) necessary to utilize trucks for such transportation. Moreover, the current fleet of cargo tank motor vehicles is insufficient to handle a significant shift of PIH cargoes from rail to highway—for example, there are only 85 cargo tank motor vehicles used for the transportation of chlorine. Because it takes about four tank trucks to haul the amount of product that can be moved in a rail tank car, the industry would have to build many more trucks to accommodate a shift in transportation from rail to highway, necessitating a significant expansion in current tank truck manufacturing capacity. In addition, because it takes four trucks to transport the same amount of product as a single rail tank car, it generally is only cost-effective to utilize trucks for relatively limited distances. A farm cooperative or agricultural products distributor, for example, typically receives large quantities of anhydrous ammonia by rail car and offloads the material into storage tanks for subsequent truck movement to local customers.

Changing these established transportation patterns would require substantial investment in new capacity and infrastructure, vastly exceeding the costs of complying with the final rule. Under these circumstances, we do not expect any shift in transportation mode as a result of implementation of this final rule. We note in this regard that no commenters raised this issue in their discussions of the potential impacts of the proposals in the NPRM. Overall transportation costs should not substantially increase because of this final rule.

Estimating the security benefits of the new requirements is challenging. Accident causation probabilities can be estimated based on accident histories in a way that the probability of a criminal or terrorist act cannot. The threat of an attack is virtually impossible to assess from a quantitative standpoint. It is undeniable that hazardous materials in transportation are a possible target of terrorism or sabotage. The probability that hazardous materials will be targeted is, at best, a guess. Similarly, the projected outcome of a terrorist attack cannot be precisely estimated. It is assumed choices will be made to maximize consequences and damages. Scenarios can be envisioned in which hazardous materials could be used to inflict hundreds or even thousands of fatalities. To date, there have been no known or specific threats against freight railroads, rail cars, or tank cars, which makes all of these elements even more difficult to quantify. Security plans lower risk through the identification and mitigation of vulnerabilities. Therefore, rail carriers and the public benefit from the development and implementation of security plans. However, forecasting the benefits likely to result from plan implementation requires the exercise of judgment and necessarily includes subjective elements.

The major benefits expected to result from this final rule relate to enhanced safety and security of rail shipments of hazardous materials. The requirements of the final rule are intended to reduce the safety and security risks associated with the transportation of the specified hazardous materials. Accidents that result in the release of hazardous materials can be very costly. Given the level of such costs, it is not unreasonable to assume that the benefits associated with assessing safety and security risks and identifying opportunities to reduce those risks will also be significant.

C. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Orders 13132 (''Federalism'') and 13175 (''Consultation and Coordination With Indian Tribal Governments''). This final rule would not have any direct effect on the states, their political subdivisions, or Indian tribes; it would not impose any compliance costs; and it would not affect the relationships between the national government and the states, political subdivisions, or Indian tribes, or the distribution of power and responsibilities among the various levels of government.

Section VII.K of the IFR (73 FR 20766) includes a discussion of PHMSA's conclusion that the decision in the

March 25, 2003, final rule in HM–232 to leave to rail carriers the specifics of routing rail shipments of hazardous materials preempts all states, their political subdivisions, and Indian tribes from prescribing or restricting routes for rail shipments of hazardous materials, under Federal Hazmat Law (49 U.S.C. 5125) and the Federal Rail Safety Act (49 U.S.C. 20106). In that section, we also discuss the comments on the proposed language in the NPRM concerning the preemptive effect of HM–232 and this final rule and explain the reasons for adopting revised language in 49 CFR 172.822.

D. Executive Order 13175

We analyzed this final rule in accordance with the principles and criteria prescribed in Executive Order 13175 (''Consultation and Coordination With Indian Tribal Governments''). Because this final rule does not significantly or uniquely affect tribes, and does not impose substantial and direct compliance costs on Indian tribal governments, the funding and consultation requirements of Executive Order 13175 do not apply; thus, a tribal summary impact statement is not required.

E. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies

In consideration of the potential impacts of rules on small entities, we developed this final rule in accordance with Executive Order 13272 (''Proper Consideration of Small Entities in Agency Rulemaking'') and DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*).

The Regulatory Flexibility Act requires an agency to review regulations to assess their impact on small entities. An agency must conduct a regulatory flexibility analysis unless it determines and certifies that a rule is not expected to have a significant impact on a substantial number of small entities.

The Small Business Administration (SBA) permits agencies to alter the SBA definitions for small businesses upon consultation with SBA and in conjunction with public comment. Pursuant to this authority, FRA published a final rule (68 FR 24891; May 9, 2003) defining a ''small entity'' as a railroad meeting the line haulage revenue requirements of a Class III railroad. Currently, the revenue requirements are $20 million or less in annual operating revenue. This is the definition used by PHMSA to determine the potential impact of this final rule on small entities.

Not all small railroads will be required to comply with the provisions of this final rule. Most of the 510 small railroads transport no hazardous materials. PHMSA and FRA estimate there are about 100 small railroads—or 20% of all small railroads—that could potentially be affected by this final rule. Cost impacts for small railroads will result primarily from the costs for data collection and analysis. PHMSA estimates the cost to each small railroad to be $2,776.70 per year over 20 years, discounted at 7%. Based on small railroads' annual operating revenues, these costs are not significant. Small railroads' annual operating revenues range from $3 million to $20 million. Thus, the costs imposed by the final rule amount to between 0.01% and 0.09% of a small railroad's annual operating revenue.

This final rule will not have a noticeable impact on the competitive position of the affected small railroads or on the small entity segment of the railroad industry as a whole. The small entity segment of the railroad industry faces little in the way of intramodal competition. Small railroads generally serve as ''feeders'' to the larger railroads, collecting carloads in smaller numbers and at lower densities than would be economical for the larger railroads. They transport those cars over relatively short distances and then turn them over to the larger systems, which transport them relatively long distances to their ultimate destination or for handoff back to a smaller railroad for final delivery. Although their relative interests do not always coincide, the relationship between the large and small entity segments of the railroad industry is more supportive and co-dependent than competitive.

It is also rare for small railroads to compete with each other. As mentioned above, small railroads generally serve smaller, lower density markets and customers. They tend to operate in markets where there is not enough traffic to attract or sustain rail competition, large or small. Given the significant capital investment required (to acquire right-of-way, build track, purchase fleet, etc.), new entry in the railroad industry is especially rare. Thus, even to the extent the final rule may have an economic impact, it should have no impact on the intramodal competitive position of small railroads.

We did not receive any comments in opposition to our conclusion that this rulemaking will not have a significant impact on a substantial number of small entities. Based on the lack of opposing comments, the foregoing discussion, and more detailed analysis in the regulatory evaluation for this final rule, PHMSA certifies that the provisions of this final rule, if adopted, will not have a significant impact on a substantial number of small entities.

F. Paperwork Reduction Act

This final rule may result in an increase in annual burden and costs under OMB Control Number 2137–0612. PHMSA currently has an approved information collection under OMB Control No. 2137–0612, ''Hazardous Materials Security Plans'', expiring June 30, 2011.

Under the Paperwork Reduction Act of 1995, no person is required to respond to an information collection unless it has been approved by OMB and displays a valid OMB control number. 5 CFR 1320.8(d) requires that PHMSA provide interested members of the public and affected agencies an opportunity to comment on information and recordkeeping requests.

This identifies a revised information collection request that PHMSA submitted to OMB for approval based on the requirements in this rule. PHMSA has developed burden estimates to reflect changes in this proposed rule. We estimate that the total information collection and recordkeeping burden for the current requirements and as specified in this rule would be as follows:

OMB No. 2137–0612, ''Hazardous Materials Security Plans''

First Year Annual Burden

Total Annual Number of Respondents: 139.
Total Annual Responses: 139.
Total Annual Burden Hours: 51,469.
Total Annual Burden cost: $3,130,859.27.

Subsequent Year Burden

Total Annual Number of Respondents: 139.
Total Annual Responses: 139.
Total Annual Burden Hours: 13,677.
Total Annual Burden Cost: $831,971.91.

Direct your requests for a copy of the information collection to Deborah Boothe or T. Glenn Foster, U.S. Department of Transportation, Pipeline & Hazardous Materials Safety Administration (PHMSA), East Building, Office of Hazardous Materials Standards (PHH–11), 1200 New Jersey Avenue, SE., Washington, DC 20590; telephone (202) 366–8553.

G. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal

Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

H. Unfunded Mandates Reform Act

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $120.7 million or more to either state, local, or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative to achieve the objective of the rule.

I. Environmental Assessment

The National Environmental Policy Act, 42 U.S.C. 4321–4375, requires that Federal agencies analyze proposed actions to determine whether the action will have a significant impact on the human environment. The Council on Environmental Quality (CEQ) regulations order Federal agencies to conduct an environmental review considering: (1) The need for the proposed action; (2) alternatives to the proposed action; (3) probable environmental impacts of the proposed action and alternatives; and (4) the agencies and persons consulted during the consideration process. 40 CFR 1508.9(b).

In accordance with the CEQ regulations, we completed an environmental assessment for this final rule that considers the potential environmental impacts of three alternatives—(1) do nothing; (2) impose enhanced safety and security requirements for a broad list of hazardous materials transported by rail; or (3) impose enhanced safety and security requirements for specified rail shipments of highly hazardous materials. The environmental assessment is available for review in the public docket for this rulemaking.

The provisions of this final rule build on current regulatory requirements to enhance the transportation safety and security of shipments of hazardous materials transported by rail, thereby reducing the risks of an accidental or intentional release of hazardous materials and consequent environmental damage. The net environmental impact, therefore, will be moderately positive. There are no significant environmental impacts associated with this final rule.

J. Privacy Act

Anyone is able to search the electronic form of any written communications and comments received into any of our dockets by the name of the individual submitting the document, or the name of the individual signing the document if submitted on behalf of an association, business, labor union, etc. You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000, (65 FR 19477) or you may visit *http://www.regulations.gov*.

List of Subjects

49 CFR Part 172

Hazardous materials transportation, Hazardous waste, Labeling, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 174

Hazardous materials transportation, Rail carriers, Reporting and recordkeeping requirements.

Issued in Washington, DC, on November 18, 2008, under the authority delegated in 49 CFR Part 1.

Carl T. Johnson,

Administrator.

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 171, 172, 173, 175, 176, and 178

[Docket Nos. PHMSA–2007–0065 (HM–224D) and PHMSA–2008–0005 (HM–215J)]

RIN 2137–AE31

Hazardous Materials: Revision to Requirements for the Transportation of Batteries and Battery-Powered Devices; and Harmonization With the United Nations Recommendations, International Maritime Dangerous Goods Code, and International Civil Aviation Organization's Technical Instructions

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Final rule.

SUMMARY: This final rule revises the Hazardous Materials Regulations to maintain alignment with international standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations, and vessel stowage requirements. These revisions are necessary to harmonize the Hazardous Materials Regulations with recent changes to the International Maritime Dangerous Goods Code, the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air, Transport Canada's Transportation of Dangerous Goods Regulations, and the United Nations Recommendations on the Transport of Dangerous Goods.

These revisions also include amendments and clarifications addressing the safe transportation of batteries and battery-powered devices. Consistent with recent changes to the International Civil Aviation Organization's Technical Instructions, PHMSA is clarifying the prohibition against transporting electrical devices, including batteries and battery-powered devices that are likely to create sparks or generate a dangerous amount of heat. PHMSA is also modifying and enhancing requirements for the packaging and handling of batteries and battery-powered devices, particularly in air commerce, to emphasize the safety precautions that are necessary to prevent incidents during transportation. PHMSA developed these revisions in conjunction with the Federal Aviation Administration to enhance the safe transportation of batteries and battery-powered devices.

DATES: *Effective date:* February 13, 2009.

Voluntary Compliance Date: PHMSA is authorizing voluntary compliance beginning January 1, 2009.

Delayed Compliance Date: Except as specified in §§ 171.14, 171.25, 172.102, 172.448, and 178.703 as amended herein, compliance with the amendments adopted in this final rule is required beginning January 1, 2010.

Incorporation by Reference Date: The incorporation by reference of the publications adopted in § 171.7 of this final rule has been approved by the Director of the Federal Register as of February 13, 2009.

FOR FURTHER INFORMATION CONTACT: T. Glenn Foster or Charles Betts, Office of Hazardous Materials Standards, telephone (202) 366–8553, or Shane Kelley, International Standards, telephone (202) 366–0656, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., 2nd Floor, Washington, DC 20590–0001.

SUPPLEMENTARY INFORMATION:

I. Background

In a notice of proposed rulemaking (NPRM) published July 31, 2008 [73 FR 44804], PHMSA proposed a number of revisions to the Hazardous Materials Regulations (HMR; 49 CFR Parts 171–180) to incorporate recent updates and revisions to Transport Canada's Transportation of Dangerous Goods (TDG) regulations, the United Nations Recommendations on the Transport of Dangerous Goods (UN Recommendations), the International Maritime Dangerous Goods (IMDG) Code, and the International Civil Aviation Organization Technical Instructions (ICAO TI) for the Transport of Dangerous Goods by Air. The UN Recommendations are amended and updated biennially by the UN Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labeling of Chemicals and serve as the basis for national, regional, and international modal regulations, including the IMDG Code, and the ICAO Technical Instructions. The revisions proposed in the July NPRM cover classification of materials, hazard communication, and packaging requirements.

The most noteworthy proposals in the July NPRM concerned the transportation of batteries and battery-powered devices. Specifically, the NPRM proposed enhanced packaging and hazardous communication requirements consistent with international standards that address the electrical hazards posed by batteries and battery-powered devices. In the NPRM, we proposed the following amendments applicable to the transportation of batteries and battery-powered devices:

- Require reporting of incidents involving batteries and battery-powered devices (devices include equipment) or vehicles.
- Clarify the requirement that batteries, and battery-powered devices and vehicles, be offered for transportation and transported in a manner that prevents short-circuiting, dangerous evolution of heat, damage to terminals, and, in the case of transportation by aircraft, unintentional activation.
- Clarify the requirements for determining whether a battery is considered non-spillable. This included designation of a new section outlining conditions for packaging and transport of batteries determined to be non-spillable.
- Require a certification on the shipping documentation that batteries and battery-powered devices have met the conditions and all requirements for transport as specified in the applicable exception or special provision.
- Eliminate the requirement to disconnect the terminals when a battery-powered wheelchair or mobility aid is transported as checked baggage, provided the wheelchair or mobility aid design provides an effective means of preventing unintentional activation.
- Clarify the requirements for transport of dry batteries including a

revision of the proper shipping name used to describe dry batteries.

The measures proposed in the NPRM for batteries and battery-powered devices were intended to harmonize the HMR with applicable international standards. More importantly, the proposals to amend the incident reporting requirements related to the transport of batteries and battery-powered devices would enable the agency to acquire and assess data on the causes of battery incidents in transportation. We could then use that information to develop strategies to reduce the associated risks.

Harmonization of domestic and international standards becomes increasingly important as the volume of hazardous materials transported in international commerce grows. Harmonization facilitates international trade by minimizing the costs and other burdens of complying with multiple or inconsistent safety requirements for transportation of hazardous materials to and from the United States. By facilitating compliance, harmonization enhances safety for international movements, but only if the international standards themselves provide an appropriate level of safety. To that end, PHMSA actively participates in the development of international standards for the transportation of hazardous materials, frequently advocating the adoption in international standards of particular HMR requirements. When considering the adoption of international standards under the HMR, we review and consider each amendment on its own merit, including an assessment of its overall impact on transportation safety and the economic implications associated with its adoption into the HMR. Our goal is to harmonize without diminishing the level of safety currently provided by the HMR and without imposing undue burdens on the regulated public.

To maintain alignment of the HMR with international requirements, in this final rule, we are incorporating changes based on the Fifteenth revised edition of the UN Recommendations, Amendment 34 to the IMDG Code, and the 2009–2010 ICAO TI, all of which become effective January 1, 2009. We are also addressing petitions for rulemaking concerning harmonization with international standards and additional measures to facilitate international transportation.

The July NPRM incorporated two separate rulemaking dockets—HM–224D addressing battery safety issues and HM–215J addressing more general harmonization issues. The comment period for the proposed rule closed on September 29, 2008. A total of 33 persons submitted comments in response to the NPRM. Some of the comments we received were provided in duplicate to both Docket Nos. PHMSA–2007–0065 (HM–224D) and PHMSA–2008–0005 (HM–215J). For reader utility, we have listed all comments received in numerical order by the Document ID number assigned when submitted, including those submitted in duplicate to each docket. The following individuals, companies, and organizations submitted comments to the Docket for HM–224D:

(1) Adrien Tusek (Tusek; PHMSA–2007–0065–0013);
(2) FedEx Express (FedEx; PHMSA–2007–0065–0016);
(3) National Air Carrier Association (NACA; PHMSA–2007–0065–0017);
(4) HMT Associates, LLC (HMT; PHMSA–2007–0065–0018);
(5) Robert Herman (Paralyzed Veterans of America) (PVA; PHMSA–2007–0065–0020);
(6) Independent Pilots Association (IPA; PHMSA–2007–0065–0021);
(7) United Parcel Service (UPS; PHMSA–2007–0065–0019, 0022);
(8) Arkema, Inc. (Arkema; PHMSA–2007–0065–0023);
(9) Procter & Gamble Company (P & G; PHMSA–2007–0065–0024);
(10) Fedco Electronics, Inc. (Fedco; PHMSA–2007–0065–0025);
(11) U.S. Fuel Cell Council (FCC; PHMSA–2007–0065–0026);
(12) Joseph Schohn (Tyco International) (Tyco; PHMSA–2007–0065–0027, 0034);
(13) Omni Air International (Omni; PHMSA–2007–0065–0029);
(14) URS Corporation (URS; PHMSA–2007–0065–0030, 0031);
(15) Air Line Pilots Association, International (ALPA; PHMSA–2007–0065–0032); and
(16) Dangerous Goods Advisory Council (DGAC; PHMSA–2007–0065–0037).

The following individuals, companies and organizations submitted comments to the Docket for HM–215J:

(1) Signal Administration, Inc. (Signal; PHMSA–2008–0005–0002);
(2) Omni Air International (Omni; PHMSA–2008–0005–0003);
(3) The Fertilizer Institute (TFI; PHMSA–2008–0005–0004);
(4) FedEx Express (FedEx; PHMSA–2008–0005–0005);
(5) HMT Associates, LLC (HMT; PHMSA–2008–0005–0006);
(6) Air Transport Association (ATA; PHMSA–2008–0005–0008);
(7) National Electrical Manufacturer's Association (NEMA; PHMSA–2008–0005–0009);
(8) Chemical Products and Technology Division (American Chemistry Council) (CPTD; PHMSA–2008–0005–0010);
(9) Lilliputian Systems, Inc. (Lilliputian; PHMSA–2008–0005–0011);
(10) Association of Hazmat Shippers, Inc. (AHS; PHMSA–2008–0005–0012);
(11) American Trucking Associations (American Trucking Associations) (PHMSA–2008–0005–0013);
(12) The Council on Safe Transportation of Hazardous Articles, Inc. (COSTHA; PHMSA–2008–0005–0014);
(13) Battery Council International (BCI; PHMSA–2008–0005–0015);
(14) Portable Rechargeable Battery Association (PRBA; PHMSA–2008–0005–0017);
(15) International Vessel Operators Hazardous Materials Association, Inc. (VOHMA; PHMSA–2008–0005–0018);
(16) URS Corporation (URS; PHMSA–2008–0005–0019);
(17) Deeds (Industrial Health & Safety Consultants, Inc.) (Deeds; PHMSA–2008–0005–0020);
(18) Anderson Products, Inc. (API; PHMSA–2008–0005–0021);
(19) National Transportation Safety Board (NTSB; PHMSA–2008–0005–0022); and
(20) Dangerous Goods Advisory Council (DGAC; PHMSA–2008–0005–0023).

Commenters were supportive of PHMSA's efforts to harmonize the HMR with international standards. Many of the proposals in the NPRM are fully supported by commenters, while others received little or no comment; these amendments are adopted as proposed. Several comments were beyond the scope of this rulemaking and are not addressed in this final rule. Comments are addressed in more detail in the Section-by-Section Review.

II. Overview

A. Amendments To Enhance the Safe Transportation of Batteries and Battery-Powered Devices

The most noteworthy amendments in this final rule address the transportation of batteries and battery-powered devices. Currently, batteries and battery-powered devices are subject to a number of requirements in the HMR. Most importantly, the HMR restrict the transportation of electrical devices, including batteries and battery-powered devices, that are likely to create sparks or generate a dangerous amount of heat that could cause fire, smoke, or otherwise adversely affect the packaging material or means of conveyance. These batteries and battery-powered devices

are forbidden from transportation unless packaged in a manner that prevents such an occurrence (§ 173.21(c)). Additionally, the following types of batteries and devices powered by batteries are subject to packaging and hazard communication requirements:

- Wet (electric storage) batteries (§ 173.159);
- Batteries containing sodium (§ 173.189);
- Lithium cells and batteries (§ 173.185);
- Solid potassium hydroxide batteries (§ 173.213); and
- Battery-powered vehicles and equipment (§ 173.220).

These requirements primarily address the hazards posed by the chemicals contained in the batteries as opposed to the stored electrical energy. For instance, wet cell batteries are required to be packaged in a manner to prevent leakage of the corrosive battery fluid in the event of an accident. The electrical hazard of the battery is addressed through general requirements to prevent short-circuiting, and the general prohibition on transporting electrical devices without proper protection and packaging (§ 173.21). However, the HMR currently prescribe no separate or unique classification for identifying materials that present a hazard in transport based on their stored electrical energy. This final rule addresses the electrical hazards posed by batteries and battery-powered devices by enhancing packaging and hazard communication requirements.

A growing number of incidents involving batteries and battery-powered devices transported by aircraft have highlighted the transportation safety risks. Additionally, several factors are contributing to a heightened concern for the future transport of these devices, with particular attention to the risk onboard aircraft, including: (1) The increasing number of batteries and battery-powered portable and handheld devices (*e.g.,* laptops, cellular phones, etc.) carried by airline passengers and otherwise transported in commerce; (2) the development and use of batteries with extended operating life and greater stored energy; and (3) the increasing number of counterfeit batteries in distribution and use. If not adequately protected from damage, short circuiting or, for devices containing batteries, inadvertent activation, batteries and battery-powered devices of all types can create or cause sparks or a dangerous amount of heat for extended periods, and in some cases, cause a fire. Cargo fires are a significant hazard in all modes of transportation and can have particularly catastrophic results in air transportation. If located aboard an aircraft during flight, inadequately protected batteries and battery-powered devices can pose a significant threat to the safety of people, property, and the environment.

PHMSA and the Federal Aviation Administration (FAA) are aware of more than 96 incidents involving batteries or battery-powered devices in air transportation since 1996 that produced smoke, fire or a dangerous amount of heat. These incidents have occurred either on board an aircraft in cargo, checked, or carry-on baggage, or in ground transport facilities associated with air transportation. Many of these incidents involved shipments of batteries as cargo. The remainder involved shipments of electrically powered vehicles, equipment, or apparatus containing batteries. Since most batteries are excepted from the incident reporting requirements in the HMR, it is likely there have been additional incidents in all modes of transportation that were not reported.

One major injury and several minor injuries were reported from these incidents. In some cases, the property damage and business interruption costs resulting from the incidents were significant. Most incidents occurred or were discovered on the ground in air transport facilities or vehicles. Three incidents occurred in flight on passenger and cargo planes, resulting in emergency landings or flight plan diversions.

In response to these incidents, PHMSA's predecessor agency (the Research and Special Programs Administration) issued a public advisory on July 7, 1999 (64 FR 36743), reminding the transportation industry and public that batteries and electric devices that contain batteries are forbidden for transport unless properly packaged to prevent the creation of sparks or generation of a dangerous amount of heat (§ 173.21). The FAA issued safety advisories to the airline industry on July 2, 1999, and again on May 23, 2002.

In addition, due to a series of incidents involving batteries carried by airline passengers, PHMSA initiated a campaign to educate the public about ways to reduce the risks posed in the transportation of batteries and battery-powered devices. The campaign included establishing a dedicated Web page for air travelers and developing a battery safety guide that includes safety measures and tips for the general public, for distribution at airports, in retail outlets, and through electronic media. As part of our battery safety campaign, we recommended various practical measures for complying with the regulations and reducing transportation risks. Recommended practices include keeping batteries installed in electronic devices; packing spare batteries individually in carry-on baggage; keeping spare batteries in their original retail packaging; separating batteries from other metallic objects, such as keys, coins, and jewelry; securely packing battery-powered devices in a manner to prevent accidental activation; and ensuring batteries are undamaged and purchased from reputable sources. On March 26, 2007, PHMSA issued a safety advisory notice (72 FR 14167) to further inform the traveling public and airline employees about the importance of properly packing and handling batteries and battery-powered devices when they are carried on board an aircraft.

We have also initiated a comprehensive strategy aimed at reducing the risks posed by batteries and battery-powered devices in transportation. On February 22, 2007; April 26, 2007; May 24–25 2007; and April 11, 2008, PHMSA hosted meetings with public and private sector stakeholders who share our concern for the safe transportation of batteries and battery-powered devices. The meetings provided an opportunity for representatives of the National Transportation Safety Board (NTSB), the Consumer Product Safety Commission, manufacturers of batteries and battery-powered devices, airlines, airline employee organizations, testing laboratories, and the emergency response and law enforcement communities to share and disseminate information about battery-related risks and developments. Understanding these risks is essential to promote improvements in industry standards and best practices. Together we identified a series of immediate and longer-term actions that participants are taking or will take to enhance safety, including:

- Comprehensive reporting and investigation of battery-related incidents;
- Improved battery, consumer product, and software design;
- Development and implementation of a technical standards agenda;
- Consideration and implementation of improved regulatory standards;
- Focused enforcement; and
- Development and implementation of a public outreach and education campaign.

The requirements adopted in this final rule are an important element of the safety strategy designed to address specific battery-related hazards not

adequately addressed by existing HMR requirements.

In this final rule, we are adopting the following amendments to enhance the safe transportation of batteries and battery-powered devices:

- Requirement to report incidents involving batteries and battery-powered devices including those that result in a fire, violent rupture, explosion, or dangerous evolution of heat. Immediate notice requirements are limited to air transport of batteries and battery-powered devices.
- Clarification of the requirement that batteries and battery-powered devices and vehicles be offered for transportation and transported in a manner that prevents short-circuiting, the potential of a dangerous evolution of heat, damage to terminals, and, in the case of transportation by aircraft, unintentional activation.
- Clarification of the requirements for determining whether a battery is considered non-spillable. This clarification includes the designation of a new section outlining conditions for packaging and transport of batteries determined to be non-spillable.
- Requirement for a shipper of batteries dry, sealed to indicate compliance with applicable special provisions and exceptions by marking each package with the words ''not restricted'' or, if a transport document such as an air waybill accompanies a shipment, by including the words ''not restricted'' on the document.
- Elimination of the requirement to disconnect the terminals when a battery-powered wheelchair or mobility aid is transported as checked baggage, provided the wheelchair or mobility aid design provides an effective means of preventing unintentional activation.
- Clarification of the requirements for the transport of dry batteries including a revision of the proper shipping name used to describe dry batteries and a provision to limit the applicability of transport requirements to a certain size of battery.

As indicated earlier, these amendments will harmonize the HMR with international standards applicable to the transportation of batteries and battery-powered devices, improve communication of the standards pertaining to the transport of batteries and battery-powered devices to facilitate safe transport of these materials especially by aircraft, relieve burdens associated with compliance requirements, and provide data and information to enable PHMSA to develop an understanding of the causes of battery incidents in transportation and assist us in the reduction of the associated risks.

Incident reporting. Most batteries are currently excepted from the incident reporting requirements in the HMR. We believe it is likely that numerous incidents involving batteries and battery-powered devices in all modes of transportation are not reported. This under-reporting has made it difficult to analyze the full body of incidents in transportation and to assess the full extent of the hazards associated with transporting batteries and battery-powered devices. In the July NPRM, we proposed to require immediate (telephonic) notice in accordance with § 171.15 for all incidents involving shipments of batteries or battery-powered devices that result in a fire, violent rupture, explosion, or a dangerous evolution of heat. In addition, we proposed to require submission of a written incident report in accordance with § 171.16 for battery related incidents, including incidents involving battery shipments that are prepared and offered as excepted from HMR requirements.

We received a number of comments [ALPA, American Trucking Associations, COSTHA, NEMA, UPS, and VOHMA] supporting the proposal to require written reports in accordance with § 171.16 of the HMR for incidents involving shipments of batteries or battery-powered devices that result in a fire, violent rupture, explosion, or a dangerous evolution of heat. We also received a number of comments [ALPA, COSTHA, NEMA, VOHMA] supporting the proposal to require immediate (telephonic) notice in accordance with § 171.15. However, three commenters [American Trucking Associations, DGAC, UPS] oppose our proposal to require immediate notice of incidents involving shipments of batteries and battery-powered devices as unwarranted and burdensome, especially on carriers. DGAC does not believe, ''* * * a battery incident would warrant [an emergency response] and therefore consider[s] reporting of battery incidents to the NRC an unnecessary reporting burden.'' Additionally, commenters note it would be difficult to determine whether batteries or battery-powered devices were involved and whether they were the cause of the incident within the time constraints of immediate reporting requirements. As indicated by the American Trucking Associations, experience has shown that for trailer fires ''* * * it is very difficult to determine the cause of the fire and carriers may not even know that batteries were present until after the fire is extinguished.'' UPS indicates ''* * * the new language will create significant challenges for carriers.'' UPS also notes that ''[e]xperience demonstrates that there are occasions when fires occur but the cause cannot be determined'' and ''many hours or even days may be required to identify that the batteries were in the trailer.'' Both commenters express concern that fire fighters may shift or remove contents, thus complicating efforts to determine the cause of a fire. The American Trucking Associations and VOHMA specifically recommend that immediate notice should apply to air transportation only.

Given the recent incidents involving batteries and battery-powered devices, we believe incident reporting will provide the data to enable us to identify the causes of battery incidents and determine whether additional measures would improve safe transport and help prevent future incidents. However, we agree with the commenters that immediate telephonic reporting of incidents that occur during ground transportation may not be necessary for this purpose. A written report of the incident submitted in accordance with § 171.16 should provide sufficient information for us to identify and assess incident causes without imposing an undue burden on carriers. Since most of the anecdotal information about battery incidents is associated with aircraft incidents and because of the inherent safety hazards of air transport, we continue to believe that air carriers should be required to provide immediate notice of battery related incidents. Therefore, in this final rule, we are adopting the amendment to § 171.15 to include a requirement for immediate notice of incidents involving shipments of batteries or battery-powered devices transported by aircraft resulting in a fire, violent rupture, explosion, or dangerous evolution of heat. Because this change from the incident reporting provisions proposed in the NPRM will revise the estimated reporting burden, we are re-calculating the information collection pertaining to incident reporting and will submit a revised package to the Office of Management and Budget (OMB). A separate **Federal Register** notice will be published pending OMB review (see discussion under ''Paperwork Reduction Act'').

One of the reporting criteria proposed in the NPRM was for an incident involving a ''dangerous evolution of heat.'' Several commenters [American Trucking Associations, COSTHA, FedEx, UPS, VOHMA] express concern that the criterion is vague and open to interpretation. The commenters request that we clarify the meaning of a

''dangerous evolution of heat'' or remove the condition altogether in order to relieve any potential ambiguity from the incident reporting requirements for the shipment of batteries or battery-powered devices. As FedEx states, ''this [term] is subjective and certainly requires further review or additional clarification.'' We continue to believe that a requirement to report incidents involving a ''dangerous evolution of heat'' will assist us to evaluate the potential fire risks associated with the transportation of batteries and battery-powered devices. However, we agree that clarification would be helpful. VOHMA suggests that the reporting requirement should be triggered by visible evidence of an amount of heat sufficient to be dangerous to packaging or personal safety to include ''* * * charring of packaging, melting of packaging, scorching of packaging, or other evidence.'' We agree and are adding this clarification to the reporting requirements.

Battery safety. In this final rule, we are adopting a number of revisions to clarify that batteries of all types and battery-powered devices, equipment, and vehicles must be packaged for transportation in a manner that prevents short-circuiting, damage to terminals, the potential of a dangerous evolution of heat, and, for transportation by aircraft, unintentional activation. We are including several examples of packaging methods that may meet this performance standard, including packaging each battery or each battery-powered device in fully enclosed inner packagings made of non-conductive material, and separating batteries and battery-powered devices in a manner to prevent contact with other batteries, devices or conductive materials (*e.g.,* metal) in the packagings. Batteries designed with exposed terminals or connectors should have the exposed terminals or connectors protected with non-conductive caps. We have included language in §§ 171.15, 171.16, 172.102 Special Provision 130, 173.21, 173.159, 173.220, and 175.10 to further clarify these requirements.

The HMR include a number of provisions applicable to batteries installed in vehicles, machinery, or other types of equipment. Section 173.220 establishes transportation requirements for internal combustion engines, self-propelled vehicles, mechanical equipment containing internal combustion engines, and battery powered vehicles or equipment. Generally, this section excepts battery-powered vehicles, machinery, and equipment from the HMR, provided they meet certain minimal requirements. We are aware of several incidents resulting in a dangerous evolution of heat initiated by batteries of this design which have been inadequately protected. In this final rule, we are adopting an amendment to require battery-powered vehicles, machinery, and equipment, including battery-powered wheelchairs and mobility aids, to conform to the new requirements in § 173.159, paragraphs (a) and (b), including requirements for protecting terminals and preventing short-circuiting and unintentional activation. In addition, we are clarifying that battery-powered vehicles, machinery, and equipment are forbidden to be transported unless packaged in a manner preventing the creation of sparks, a dangerous amount of heat and, in air transportation, unintentional activation.

Non-spillable batteries. Section 173.159 establishes requirements for the transportation of wet batteries, including non-spillable batteries. If certain conditions are met, non-spillable batteries are excepted from the HMR. Non-spillable batteries meeting additional requirements are excepted from all other requirements of the HMR. Unless all of the conditions specified in § 173.159(d) are met, a non-spillable battery is fully subject to the HMR as a wet electric storage battery. International regulations outline the conditions under which a battery is considered non-spillable and provide packaging requirements specific to non-spillable batteries. In this final rule, we are describing in § 173.159(f) the conditions under which a battery is considered non-spillable and relocating the exceptions pertaining to non-spillable batteries to a new § 173.159a. Consistent with international requirements, we are specifying that batteries are considered ''non-spillable'' when they are capable of passing a vibration test and a pressure differential test without leakage. We are also adopting the requirement that non-spillable batteries must be packaged in strong outer packaging and securely fastened in the battery holder or the equipment when the battery is an integral part of the operation of mechanical or electronic equipment. In addition, we are specifying that, except for the incident reporting requirements of §§ 171.15 and 171.16, non-spillable batteries are not subject to the requirements of the HMR if they meet the following additional conditions:

- At a temperature of 55 °C (131 °F), the battery does not contain any unabsorbed free-flowing liquid, and is designed so that electrolyte will not flow from a ruptured or cracked case;
- The battery is protected against short-circuiting and securely packaged in strong outer packaging;
- The battery is marked ''NONSPILLABLE'' or ''NONSPILLABLE BATTERY''; and
- For transportation by aircraft:
- The battery must meet the provisions of § 173.159(b)(2).

One commenter [Tyco] expresses concern regarding shipments of non-spillable batteries that otherwise appear to meet the requirements for transport of non-spillable batteries (see § 173.159a), but leak after being damaged during transportation. The commenter states that it conducted an internal investigation, which involved test samples of all non-spillable batteries it utilizes, to determine if those batteries met the criteria of a ''non-spillable'' battery because they leaked and contained free liquids. According to the commenter, a number of the tested batteries exhibited observable leakage, although the manufacturers and distributors of the batteries had provided certification and laboratory results showing no failures. Based on this information, the commenter recommends that PHMSA clarify any ambiguity surrounding the methodology used to determine whether a battery is ''non-spillable'' to improve safety during the transportation of these materials. Specifically, the commenter requests PHMSA identify a testing protocol to determine whether a battery is designed so that electrolyte will not flow from a ruptured or cracked case.

We commend the efforts of the commenter and appreciate the information provided in its comments. However, the recommendation provided by the commenter is outside the scope of this rulemaking as revisions to the criteria for determination of a non-spillable battery were not proposed in the NPRM. We will consider this information as part of our comprehensive strategy aimed at reducing the risks posed by batteries and battery-powered devices in transportation.

We received two comments [BCI, PRBA] expressing disappointment that PHMSA did not consider provisions for shipments of non-spillable batteries transported for recycling or disposal. The commenters indicate that ''* * * it is almost impossible for shippers of used batteries to know if nonspillable batteries have been subject to the required vibration, pressure differential, and 'crack test' at 55 °C (131 °F) or marked NONSPILLABLE or NONSPILLABLE BATTERY * * *'' Both commenters request that PHMSA include a new paragraph in § 173.159

which would provide relief from these tests for batteries transported for disposal or recycling. The request by the commenters is beyond the scope of this rulemaking. We did not propose the addition of a new paragraph which provides relief from non-spillable test requirements for shipments of non-spillable batteries intended for recycling or disposal. However, we will review the merits of this request and consider it for a future rulemaking.

One commenter [BCI] requests that PHMSA remove the reference to ''batteries manufactured after September 30, 1995'' in the new § 173.159a for exceptions for non-spillable batteries. BCI notes that ''* * * it is safe to assume that all nonspillable batteries being shipped today and in the future are manufactured after this date * * *'' We agree and in this final rule, we are removing the phrase ''batteries manufactured after September 30, 1995'' from the new § 173.159a.

Battery-powered wheelchairs or other mobility aids. Section 175.10 establishes exceptions for passengers, crewmembers, and air operators. Currently, the HMR permit a wheelchair or other battery-powered mobility aid to be carried on board a passenger aircraft as checked baggage provided that (1) visual inspection, including removal of the battery if necessary, reveals no obvious defects; (2) the battery is disconnected and terminals are insulated to prevent short-circuiting; and (3) the battery is securely attached to the wheelchair or mobility aid or removed and separately packaged. We are concerned, however, that repeated handling of the battery in a wheelchair or other mobility aid could result in damage or other problems that could compromise safety. Moreover, the design batteries and their housing have significantly improved in recent years. Therefore, in the NPRM, we proposed to revise § 175.10(a)(15) to eliminate the requirement to disconnect the terminals when a battery-powered wheelchair or other mobility aid is transported as checked baggage provided the device provides an effective means of preventing unintentional activation. Battery terminals must continue to be protected from short-circuiting, but such protection is inherent in the design of most wheelchairs and mobility aids.

Three commenters [ALPA, Omni, PVA] support PHMSA's proposal to eliminate the current requirement to disconnect the terminals when a battery-powered wheelchair or other mobility aid is transported as checked baggage provided the wheelchair or mobility aid has an effective means of preventing unintentional activation. ALPA states, ''* * * [w]e believe this provides an equivalent level of safety and will prevent inadvertent damage to wheelchairs by airline personnel, which could lead to a battery incident.'' However, one commenter [Tusek] expresses concern regarding the proposal to disconnect the battery if the wheelchair or mobility aid design does not provide an effective means of preventing unintentional activation. The commenter is concerned that such a requirement can be satisfied by merely unplugging a cable from a control unit rather than disconnecting the battery at the terminal(s). The commenter notes that the cable is still ''live'' and susceptible to ''arcing'' (short-circuiting) if the cable remains attached to the battery. The commenter provides information about an incident involving a wheelchair to illustrate the risk associated with unplugging a wheelchair but allowing the cable or wiring to remain connected to a battery.

We acknowledge the concerns of the commenter and believe that additional clarification is warranted. Our review indicates that the referenced incident could have been prevented by thorough visual inspection, proper handling, and proper insulation of the terminals. Additionally, we note that the intent of the provision to disconnect the battery is to disconnect the battery at the terminals (and insulate the terminals to prevent short circuits). Unplugging a cable and leaving it connected to the terminal(s) does not satisfy the requirement to disconnect the battery and insulate the terminals. However, requiring the disconnection of batteries at the terminal results in repeated handling of the battery and increases the potential of damage or other problems that could compromise safety. Our intent is to diminish this potential by allowing the battery to remain connected to the wheelchair or mobility aid if the design provides an effective means of preventing unintentional activation. Therefore, in this final rule, we are adopting the requirements as proposed, and including additional language in the regulatory text in § 175.10(a)(15) to clarify that when the battery is disconnected, the battery terminals must also be protected to prevent short circuits.

Waybill notation. In the July NPRM, we proposed to require a notation to be included on the air waybill accompanying a shipment to indicate that batteries and battery-powered devices have met all conditions and requirements for transport as specified in the HMR without further restriction. A number of commenters [ALPA, American Trucking Associations, BCI, COSTHA, DGAC, Fedco, FedEx, NEMA, Omni, PRBA, UPS, URS] addressed the proposed notation. Most commenters oppose the proposal based on current air carrier practice, inconsistency with the ICAO TI, and concern that air waybills are not required shipping documents under the HMR.

Commenters oppose the certification provisions because the HMR do not specifically require an air waybill. As COSTHA notes, ''* * * [u]se of an air waybill is not mandated by the HMR and there are few if any references to an air waybill.'' Additionally, UPS points out that ''[t]his commercial document, used by many air carriers as a contract of carriage, does not really have any status in the HMR * * *'' Commenters state that the language as written suggests that the required words ''not restricted'' must appear on an air waybill, in effect, requiring shipments to be accompanied by an air waybill. Other commenters stress that the language as proposed in the NPRM is not consistent with ICAO TI requirements, which require the words ''not restricted'' *when an air waybill is issued.* PRBA asserts that ''* * * PHMSA should clarify that this requirement only applies when an air waybill is issued * * *'' Two commenters [COSTHA, Omni] suggest that it would be more appropriate to revise the language to require confirmation of compliance on an accompanying air waybill or other document. COSTHA specifically suggests using language similar to language provided in new section § 173.4a(h)(1), ''* * * if a document such as an air waybill accompanies a shipment * * *.''

Commenters are also concerned about implementation of such a hazard communication requirement. Some indicate an inequitable burden on carriers, especially non-air transport modal carriers. The American Trucking Associations indicates, ''* * * if a shipper of batteries fails to indicate this statement on an air waybill used as a shipping paper, it is extremely unlikely that a motor carrier will be able to identify the deficiency * * *'' UPS urges PHMSA to proceed carefully with new documentation requirements and states, ''PHMSA should not expect carrier personnel routinely to seek information related to hazardous materials on a document other than a hazardous materials shipping paper, particularly when the package does not otherwise require special handling * * *.'' Commenters also note that use of an air waybill is not standard across the air carrier industry, and that carriers and industry are becoming more

automated and moving towards a paperless system for shipments. According to UPS, ''Millions of air shipments, including those in the UPS small package service, move every day without an accompanying air waybill. The vast majority of such small package service shipments are transported with an address label affixed to the package * * * PHMSA's proposal depends on the unfounded assumption that an air waybill will be generated for every air shipment * * *.'' FedEx adds, ''We estimate that well over 50% of shipments offered to FedEx Express do not have a paper air waybill.''

Two commenters [NACA, Omni] note that in many cases the carrier or freight forwarder prepares the air waybill and disagree with PHMSA's premise that including the words ''not restricted'' on an air waybill allows a carrier or freight forwarder to verify that the shipper has complied with applicable requirements. According to Omni, ''* * *[w]here the consignor tenders a material or article to an aircraft operator or freight forwarder and the operator's or freight forwarder's agent prepares the air waybill, the stated intent of the PHMSA may not be satisfied.'' Omni suggests PHMSA require the confirmation of compliance on the accompanying air waybill or other transport document to permit the endorsement in a form other than the air waybill prepared by the operator or freight forwarder. NACA suggests requiring the shipper to submit written verification that the shipment is determined to be ''not restricted'' or requiring the shipper endorsement of an air waybill prepared by a carrier or the freight forwarder.

Recent incidents involving batteries and battery-powered devices suggest that shippers may not be aware of all the HMR requirements applicable to shipments of these items. Moreover, the lack of a declaration or some other type of shipment identification accompanying these shipments to air carriers may result in unsafe handling during transportation. We believe that a requirement to indicate on a shipping document or other media that the shipment conforms to all applicable requirements will enhance safety through increased awareness on the part of both shippers and carriers.

It was not our intent to specifically require the use of an air waybill to communicate conformance. We agree with commenters that recommend consistency with ICAO TI requirements to include the words ''not restricted'' when an air waybill is issued. However, in light of comments submitted indicating that not all shipments are accompanied by an air waybill, limiting the requirement to ''when an air waybill is issued'' does not satisfy the intent of communicating conformance with the HMR. Therefore, as suggested by COSTHA, we are revising the language to be similar to the ''excepted quantities'' documentation requirements to specify that ''if a document such as an air waybill accompanies a shipment, the words 'not restricted' must be provided on the document.'' The documentation we refer to is some form of transport documentation prepared to accompany the shipment. To assist the communication process, we recommend including the words ''not restricted'' on the top page of a multiple page document in a manner clearly distinguishing the required words from other text. In addition, to reduce the paperwork burden that may result from this requirement, in this final rule, we are adopting an alternative means of communicating conformance. Specifically, a shipper may elect to mark each package containing batteries or battery-powered devices with the words ''not restricted'' in lieu of placing the words on a transport document accompanying the shipment. Finally, in response to commenters' concerns that this amendment will impose additional documentation-related burdens, we are recalculating the related information collection pertaining to shipping papers and will submit a revised package to OMB. A separate **Federal Register** notice will be published pending OMB review (See discussion under ''Paperwork Reduction Act'').

Note that the requirement to include the notation ''not restricted'' on an air waybill, shipping document, or as a package marking applies to cargo shipments of dry, sealed batteries that are greater than 9 volts. Other types of batteries, including lithium batteries and non-spillable batteries, are already subject to hazard communication requirements in the form of shipping documentation and/or package markings and labels.

We are not adopting our proposal for an air waybill certification requirement for other types of hazardous materials shipments. See the discussion later in this preamble.

Conforming amendments. In the July NPRM, we proposed a number of conforming amendments to ensure that batteries are transported in accordance with the proposed requirements in § 173.159. For example, § 173.21 currently prohibits the transportation of electrical devices unless packaged to prevent the creation of sparks or generation of a dangerous amount of heat. In the NPRM, we proposed to revise this paragraph to clarify that the term ''electrical devices'' includes ''batteries'' and ''battery-powered devices.'' We also proposed to revise Special Provision 130 to specify that ''Batteries, dry, sealed, n.o.s.'' are not subject to the requirements of the HMR except those pertaining to incident reporting, short circuit protection, damage to terminals, prevention of the potential of a dangerous evolution of heat, and when transported by aircraft, unintentional activation and an indication on the air waybill that all conditions for transport have been met (Special Provision 130). In addition to the proposed amendments, in this final rule, we are adding clarifying language that the requirements in Special Provision 130 for dry batteries transported by air only apply to shipments of batteries whose voltage (electrical potential) exceeds 9 volts.

We received a number of comments [BCI, NEMA, Omni, PRBA,UPS, URS] generally supporting our efforts to clarify requirements for preventing short circuits and inadvertent activation as well as our proposal to include examples of packaging methods to meet performance standards. However, several commenters [NEMA, PRBA, URS] oppose the current structure of the regulatory text outlining examples of packaging methods to prevent short circuits for batteries excepted under § 172.102, Special Provision 130. Specifically, commenters are concerned with the examples we provided to package each battery when practicable in fully enclosed inner packagings or separating the batteries in a manner to prevent contact with other batteries, devices or conductive materials. The commenters are also concerned that this language would disallow the current practice of retail packaging commonly referred to as ''blister packs'' and volume packaging of batteries. Commenters note that during volume packaging of batteries, batteries are packaged in such a manner that the metal sides or jackets of the batteries contact one another, but are positioned and packaged so that there is no terminal-to-terminal contact or terminal-to-metal contact, and there is no shifting of the contents to allow such contact.

We agree with the commenters that clarification of the proposed language may be warranted. The intent of including the examples of methods to protect from short circuits is to assist shippers to identify specific methods of achieving the standard. As UPS notes ''[t]he inclusion of these examples will lead to better understanding of the specific steps required to prevent incidents in transportation.'' Our intent is not to prohibit a method of packaging

that has a track record of safe transport. Indeed, we have issued previous interpretive guidance indicating that battery-to-battery contact is not prohibited provided there is no contact between battery terminals, battery terminals and conductive material, or shifting that would allow such contact. Therefore, in this final rule, we are revising the proposed language in §§ 172.102, Special Provision 130 and 173.159 to clarify the requirements.

One commenter [Omni] expresses concern that FAA requirements in 14 CFR Part 382 no longer align with the requirements in Parts 171 through 175 because of proposed revisions to §§ 173.159 and 175.10. Omni encourages agencies within DOT to coordinate efforts to ensure requirements from the respective agencies align. We agree that alignment within the agencies is necessary; however, we are not aware of any conflict.

One commenter [BCI] indicates that we did not clearly state the numerous ways protection against short circuits and generating a dangerous quantity of heat can be achieved. BCI points out that ''* * *certain batteries are designed in such a way to prevent short circuits, and thus need not be subject to additional packaging requirements. (Examples include, but are not limited to, recessed battery terminals.)* * *'' BCI recommends that PHMSA incorporate design considerations into the transport requirements for batteries or battery-powered devices. We agree. The requirements are not intended to regulate the design of these materials but allow for designs that conform to the requirements. For instance, the requirements allow for compliance with the requirement to protect against damage to terminals through design implementation such as recessed battery terminals.

In the July NPRM, we also proposed to amend certain entries in the Hazardous Materials Table (HMT) in § 172.101. Currently, under the HMR, dry batteries are not subject to incident reporting or measures to prevent unintentional activation until a dangerous amount of heat has developed. As indicated above, in this final rule, we are extending the requirements for incident reporting and enhanced packaging to cover all batteries and battery-powered devices. Therefore, we are removing the entry ''Batteries, dry, *not subject to the requirements of this subchapter*'' and adding a new entry, ''Batteries, dry, sealed, n.o.s.'' to the HMT.

It should be noted that shippers must distinguish between the proper shipping name ''Batteries, dry, sealed, n.o.s.,'' and the existing proper shipping name ''Batteries, wet, non-spillable, *electric storage.*'' Batteries described as ''Batteries, wet, non-spillable, *electric storage*'' have metallic lead and lead oxide electrodes and sulfuric acid electrolytes just like regular ''wet'' batteries, but the acid is either gelled with silica or absorbed in a mat of micro-glass fibers. These batteries are not truly ''sealed'' (non-spillable) but are ''valve regulated'' (they are technically termed ''valve-regulated lead-acid'' or ''VRLA''). The resealable valves prevent the entrance of oxygen from the outside air, but release excess hydrogen and oxygen formed during overcharging. These types of batteries are generally used for 12-volt vehicular starting applications and uninterruptible power supply applications.

Batteries described under the new proper shipping name ''Batteries, dry, sealed, n.o.s'' are hermetically sealed and generally utilize other metals and/or carbon as electrodes. These batteries are typically used for portable power applications. The rechargeable (and some nonrechargeable) types have gelled alkaline electrolytes (rather than acidic) making it difficult for them to generate hydrogen or oxygen when overcharged.

The entry ''Batteries, dry, containing potassium hydroxide solid, *electric storage*'' is being revised by adding to column (7) a reference to new Special Provision 237. The new special provision specifies that ''Batteries, dry, containing potassium hydroxide solid, *electric storage*'' must be prepared and packaged in accordance with the requirements of § 173.159(a), (b), and (c), and for transportation by aircraft, § 173.159(b)(2). The entry ''Batteries, wet, non-spillable, *electric storage*'' is revised by adding to column (8A), a reference to new § 173.159a.

Section 173.189 establishes transportation requirements for batteries containing sodium or cells containing sodium. In the NPRM, we proposed to revise paragraph (e) to specify that vehicles, machinery and equipment powered by sodium batteries must be consigned under the entry ''Battery-powered vehicle *or* Battery-powered equipment.'' This amendment is being adopted as proposed.

Section 176.84 contains additional stowage and segregation requirements for hazardous materials on cargo and passenger vessels. In this final rule, in order to align the HMR with the IMDG Code, a new vessel stowage code ''146'' is added to the § 176.84(b) table to specify that, ''Category B stowage applies for unit loads in open cargo transport units.'' The new vessel stowage code ''146'' is assigned to ''Batteries, wet, filled with acid, *electric storage,*'' UN2794 and ''Batteries, wet, filled with alkali, *electric storage,*'' UN2795 in column (10B) of the HMT.

Lithium batteries. Except for incident reporting requirements, the July NPRM did not propose any amendments pertaining to the transportation of lithium batteries. PHMSA is continuing to evaluate and reduce lithium battery risks through targeted enforcement; inspections and testing, including root cause investigation of all incidents; public outreach; and other non-regulatory initiatives.

Three commenters [ALPA, Fedco, Omni] express disappointment that PHMSA is not proposing any amendments pertaining to the transportation of lithium batteries. One commenter [Fedco] is, ''appalled to find * * * Amendments to the HMR pertaining to lithium batteries based on the Fifteenth revised edition of the UN Recommendations are not being proposed in this rulemaking.'' Fedco notes the burden this places on its company by requiring ''extreme diligence'' when shipping lithium cells and batteries because of the dual shipping and packaging requirements and strongly urges PHMSA to fully harmonize with the UN Recommendations. Omni also expresses concern but requests that, ''* * * at a minimum, the PHMSA incorporate in to § 172.101 the three new lithium ion battery proper shipping names and the three replacement lithium metal battery proper shipping names that come into effect internationally * * *'' as of January 1, 2009. An additional commenter [NEMA] requests clarification of the weight limitations for packages of small lithium cell and batteries.

We appreciate the concerns expressed by shippers about the challenges involved with complying with differing regulatory standards and requirements. However, it should be noted that because the HMR permit compliance with ICAO requirements for air shipments, the new proper shipping names may be used for air transportation, both domestically and internationally, and for transportation by motor vehicle and rail immediately before or after being transported by aircraft. Further, as stated in the NPRM, we plan to complete an assessment of the costs and benefits of further restrictions and available alternatives before developing additional lithium battery rulemaking proposals. Therefore, except for incident reporting

requirements and some clarifying language for protection against short circuits, this final rule does not adopt amendments pertaining to the transportation of lithium batteries. In the meantime, we will continue to monitor and evaluate the safety performance of lithium batteries in transportation, identify and target counterfeit and other non-conforming batteries, and encourage the development and introduction of safer battery designs.

B. Additional Amendments Adopted in This Final Rule

In addition to the battery-related amendments detailed above, in this final rule, we are adopting the following amendments to harmonize the HMR with the most recent revisions to the UN Recommendations, ICAO TI, and IMDG Code:

- *Hazardous Materials Table (HMT):* Amendments to the § 172.101 HMT to add, revise, or remove certain proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, bulk packaging requirements, passenger and cargo aircraft maximum quantity limitations and vessels stowage provisions. Additionally, we are revising several entries in the HMT to correct typographical errors.
- *Fuel Cells:* Amendments to the HMT to add four new proper shipping names to describe the range of fuel used in fuel cell cartridges: (1) Corrosive substances (UN3477); (2) liquefied flammable gas (UN3478); (3) hydrogen in metal hydride (UN3479); and (4) water-reactive substances (UN3476). In addition, we are adopting amendments to expand the types of fuel cell cartridges permitted in carry-on baggage to include water-reactive substances and hydrogen in a metal hydride. Amendments to § 173.230 provide packaging requirements for fuel cells and, except for transportation by aircraft, limited quantity exceptions for the various types of fuel cell cartridges specified above.
- *Small Quantity Exceptions:* Amendments maintaining current allowances for small quantities of Division 2.2, Class 3, Division 4.1, Division 4.2 (PG II and III), Division 4.3 (PG II and III), Division 5.1, Division 5.2, Division 6.1, Class 7, Class 8, and Class 9 materials transported by highway and rail and adopting the UN and ICAO excepted quantity provisions for transportation by aircraft or vessel.
- *Incident Reporting:* Amendments to provisions that except certain hazardous materials or commodities from the requirements of the HMR, including incident reporting requirements. The HMR contain overriding provisions in §§ 171.15 and 171.16 requiring notice of specific types of incidents to the National Response Center (NRC) and submission of a Hazardous Materials Incident Report, DOT Form F 5800.1, when in possession of a hazardous material at the time of an incident. The NRC relies on notices to gather and distribute spill data to emergency responders, and the DOT hazardous materials transportation safety program relies on DOT Form F 5800.1 to gather basic information on incidents that occur during transportation. We proposed to amend several provisions to emphasize the need to provide notice to the NRC and to address the need to obtain more accurate and complete data on incidents. Based on our review of comments regarding the proposed air waybill requirements for ''not restricted'' materials and based on past history of safe transportation of these excepted materials, in this final rule, we are not adopting the incident reporting requirement as proposed for those materials excepted in §§ 173.162, 173.164, 173.166, 173.186, 173.306, and 173.307. However, we are adopting our proposals to revise the exceptions and Special provisions applicable to batteries to include incident reporting requirements because there is a greater need to collect data as is discussed in the above Section A. We will continue to review the merits of the proposal and may reconsider the proposed amendments for a future rulemaking.
- *Organic Peroxide Tables:* Amendments to the Organic Peroxide Tables to add, revise, or remove certain hazardous materials and provisions.
- *Incorporation by Reference:* Amendments to incorporate by reference the updated ICAO TI, IMDG Code, TDG, UN Recommendations, and the addition of two new International Organization for Standardization (ISO) standards.
- *Petitions for Rulemaking:* In this final rule, we are addressing several petitions for rulemaking: P–1490, requesting PHMSA to remove the requirement that the type of package must be included on the notification of pilot-in-command; P–1494, requesting PHMSA to specify that pictograms described in the UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS) are not prohibited under the HMR; P–1505, requesting PHMSA to include a new proper shipping name ''Powder, smokeless,'' UN0509, to the HMT and to include the new entry among the explosives assigned Packaging Instruction 114(b) in § 173.62; and P–1516, requesting PHMSA to allow the marine pollutant list to remain the basis in domestic transportation for regulating substances hazardous to the environment while permitting substances meeting the new IMDG Code criteria to be transported as substances hazardous to the environment. We are also addressing petitions P–1517 and P–1518, requesting PHMSA to align provisions for the transport of fuel cell systems and cartridges in the HMR with international standards.
- *Requirements for Marine Pollutants:* Recently, the classification criteria for marine pollutants in the IMDG Code were amended for consistency with the aquatic toxicity criteria adopted within the GHS. The HMR currently allow materials meeting the criteria of a marine pollutant under the prior IMDG Code criteria to be classed as such for domestic or international transportation (see paragraph 4 of the introduction to Appendix B of § 172.101). The new classification system adopted in the IMDG Code is complicated, and the associated criteria for classifying mixtures containing marine pollutants would involve an additional layer of complexity without a corresponding public benefit. Therefore, in the NPRM, we did not propose to adopt the new IMDG Code environmental classification system. Instead, we proposed to maintain the current regulatory approach to facilitate transportation without mandating use of the new GHS-based criteria. We also proposed to adopt a new marking for marine pollutants consistent with the marking adopted within the IMDG Code. These amendments are being adopted as proposed. These actions will provide the greatest possible harmonization with international requirements without imposing an undue burden on industry. This amendment is also consistent with a Petition for Rulemaking (P–1516) filed by DGAC. DGAC requested that for domestic transportation the marine pollutant list be maintained as the basis for regulating substances hazardous to the environment while permitting a substance meeting the new IMDG Code criteria to be transported as a substance hazardous to the aquatic environment. DGAC also recommended that the current 10 percent rule for classifying mixtures containing marine pollutants be used while allowing compliance with the mixture calculation in the IMDG Code. Though we did not propose to implement a 10 percent rule for marine pollutants irrespective of whether they are identified as a severe marine pollutant, we requested comments on that recommendation. In particular, we

were interested in the environmental impacts of such a change and its effect on human health and the environment. We invited comments on the practical consequences of the differing approaches, for instance, in the event of release of such substances into aquatic resources and drinking water. We did not receive any comments specifically addressing the release of substances into aquatic resources and drinking water. However, comments pertaining to the proposal to maintain the current regulatory approach to facilitate transportation without mandating use of the new GHS-based criteria are discussed under the section entitled ''Appendix B to § 172.101'' in this rulemaking.

C. Amendments Not Being Adopted in This Final Rule

This final rule makes changes to the HMR based on amendments to the Fifteenth revised edition of the UN Recommendations, Amendment 34 to the IMDG Code, and the 2009–2010 ICAO TI, which become effective January 1, 2009. However, we are not adopting all of the amendments to those documents into the HMR. In many cases, amendments to the international recommendations and regulations have not been adopted because the framework or structure of the HMR makes adoption unnecessary. In other cases, we have handled, or will be handling, the amendments in separate rulemaking proceedings. If we have inadvertently omitted a proposed amendment in the NPRM, we will attempt to include the omission in this final rule. However, our ability to make changes in a final rule is limited by requirements of the Administrative Procedure Act (5 U.S.C. 553). In some instances, we can adopt a provision inadvertently omitted in the NPRM if it is clearly within the scope of changes proposed in the notice, does not require substantive changes from the international standard on which it is based, and imposes minimal or no cost impacts on persons subject to the requirement. Otherwise, in order to provide opportunity for notice and comment, the change must be proposed in an NPRM.

One of the goals of this rulemaking is to continue to maintain consistency between the HMR and the international requirements. We are not striving to make the HMR identical to the international regulations, but rather to remove or avoid potential barriers to international transportation.

Below is a listing of significant amendments to the international regulations that we are not adopting in this final rule with a brief explanation of why the amendment was not included:

- *Requirements for Hazardous Materials Security.* The UN and ICAO have adopted minimal requirements pertaining to hazardous materials security. On March 25, 2003, we published a final rule to enhance the security of hazardous materials transported in commerce (68 FR 14510). Pursuant to that final rule, shippers and carriers of certain highly hazardous materials are required to develop and implement security plans. In addition, all shippers and carriers of hazardous materials are required to include a security component. The security plan requirements apply to shipments of hazardous materials that must be placarded and to select agents. In a separate rulemaking [PHMSA–06–25885 (HM–232F); 73 FR 52558, September 9, 2008] we proposed revisions to the list of materials for which security plans are required to ensure that the requirements apply only to those materials that pose a true security risk in transportation. We expect to publish a final rule in the spring of 2009.
- *Requirements for Radioactive Materials.* We are not adopting provisions pertaining to the transportation of Class 7 (radioactive) materials. Amendments to requirements pertaining to the transportation of Class 7 (radioactive) materials are based on changes contained in the International Atomic Energy Agency (IAEA) publication, ''IAEA Safety Standards: Regulations for the Safe Transport of Radioactive Materials.'' Due to their complexity, these changes are being addressed in a separate rulemaking under Docket HM–250.
- *Requirements for Infectious Substances.* The UN and ICAO have adopted minimal standards applicable to the transportation of human remains and animal carcasses as to which there is minimal likelihood that pathogens are present. For purposes of the HMR, such specimens are not considered hazardous, and their transportation is not subject to the HMR. These specimens are currently regulated by the Food and Drug Administration of the U.S. Department of Health and Human Services, the U.S. Department of Agriculture, and State and local authorities. Therefore, we are not adopting the new international provisions into the HMR.
- *Requirement for Definition of ''Target'' for Use During Packaging Testing.* Amendments to the HMR pertaining to the definition of a ''target'' for a drop test performed on non-bulk packagings are not being adopted in this rulemaking. The UN Recommendations amended the description to specify that the surface of a target must be immovable, free of defects, rigid, and large enough to ensure that the test package falls entirely upon the surface. We believe the current provisions in the HMR pertaining to the drop test method for non-bulk packagings adequately address this issue.
- *Requirement for Vibration Test for All Intermediate Bulk Containers (IBCs).* Amendments to the HMR pertaining to the test method and duration of a vibration test for IBCs are not being adopted in this rulemaking. PHMSA successfully helped to introduce to the UN Recommendations a vibration test requirement for IBCs that would both enhance safety and help to establish a more equivalent testing protocol for manufacturers of IBCs worldwide. However, the vibration test adopted by the UN may be conducted as a ''stand-alone'' design-type test on an otherwise untested IBC. In contrast, the vibration test originally introduced by PHMSA would require the vibration test to be conducted in sequence with other required tests. We believe this method provides a higher degree of safety, and therefore, are not amending the vibration test requirements currently in the HMR.
- *Requirement for Bromine (UN1744).* In the most current edition of the UN Recommendations, a packing instruction and a special packing provision for ''Bromine,'' UN1744 were consolidated into a new packing instruction specifically for Bromine. After reviewing this new packing instruction, we believe the current provisions in the HMR pertaining to the packaging of Bromine are adequate. The most noteworthy revision to the UN packing instruction which was initially adopted by the UN, was the removal of the intermediate packaging requirement for combination packagings. This decision was later reversed. Therefore, because the HMR already require an intermediate packaging, we are not adopting this amendment in this rulemaking.
- *Exceptions to Packaging for Paint and Paint-Related Material.* Amendments authorizing certain exceptions from performance testing of packagings containing paint and certain paint-related materials are not being adopted in this rulemaking. Currently, both the UN Recommendations and the HMR contain certain packaging exceptions for specific adhesives, printing inks, printing ink related materials, paint, paint-related materials and resin solutions (see UN Packing Instruction P001, Special Packing

Provision PP1 and 49 CFR 173.173(b)(2)). The Fifteenth revised edition of the UN Recommendations expands the exceptions to also include such materials when classified as environmentally hazardous substances. We are currently reviewing the incident data related to these exceptions and may consider this issue for a future rulemaking.

• *Requirements for Lithium Batteries.* Amendments to the HMR pertaining to lithium batteries based on the Fifteenth revised edition of the UN Recommendations are not being adopted in this rulemaking. We are reviewing these requirements and may consider them for a future rulemaking.

• *Requirements for Additional Signage.* Amendments to the HMR pertaining to additional signage in airports are not being adopted in this rulemaking. We are reviewing these amendments, including the related cost impacts, and may consider them for a future rulemaking. In the NPRM, we requested comments to provide information and suggestions that we can use during a future review. One commenter [ATA] states that it does not support airport signage as a primary means of hazard communication and that the ICAO requirements for more information on signage are not effective or efficient. Further, the commenter urges PHMSA not to adopt the ICAO signage requirements. We acknowledge the commenter's remarks and will include them in our consideration of a future rulemaking.

• *Requirement for Hazard Communication on an Air Waybill:* Amendment to require the consignor to indicate on the air waybill that certain hazardous materials or articles have met the conditions for transport as specified in applicable exceptions or special provisions. Based on comments received in response to the NPRM and the past history of the safe transport of the hazardous materials that would be subject to these amendments, we are not adopting the amendments in this final rule. However, we will continue to review the merits of this hazard communication amendment and may reconsider incorporating the amendment or a similar revised version of the amendment in a future rulemaking.

III. Section-by-Section Review

Following is a section-by-section review of the amendments adopted in this final rule. Note that this section-by-section review excludes the amendments applicable to the transportation of batteries and battery-powered devices, which are detailed in section II of this Notice.

Part 171

Section 171.7

The ''National Technology Transfer and Advancement Act of 1996'' directs agencies to use voluntary consensus standards. According to OMB Circular A–119, ''Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities,'' government agencies must use voluntary consensus standards wherever practical in the development of regulations. Agency adoption of industry standards promotes productivity and efficiency in government and industry, expands opportunities for international trade, conserves resources, improves health and safety, and protects the environment.

To these ends, PHMSA actively participates in the development and updating of consensus standards through representation on more than 20 consensus standards bodies. PHMSA regularly reviews updated consensus standards and considers their merit for inclusion in the HMR.

Section 171.7 lists all standards incorporated by reference into the HMR. For this rulemaking, we evaluated updated international consensus standards pertaining to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations, and vessel stowage requirements and determined that the revised standards provide an enhanced level of safety without imposing significant compliance burdens.

One commenter [TFI] requests that we amend the HMR to include the most current edition of the Transport Canada's TDG Regulations by referencing ''Amendment 6'' in the § 171.7 list of standards incorporated by reference. Amendment 6 of the TDG was published in Part II of the Canada Gazette on February 20, 2008. The § 171.7 list of standards of the HMR currently lists Amendment 5. We acknowledge the commenter's request to include Amendment 6 in our list of standards incorporated by reference. We are currently evaluating the changes in Amendment 6 of the TDG to determine whether the revised standards provide an enhanced level of safety without imposing significant compliance burdens, and will consider its inclusion in the HMR in a future rulemaking. However, in this final rule we are incorporating the new subsection 4.18(5) of Amendment 6 pertaining to placarding of anhydrous ammonia, UN1005. This amendment will maintain our long-standing policy of accepting the TDG placards in the U.S. and will facilitate the safe and efficient transportation of anhydrous ammonia between the U.S. and Canada.

We did not receive comments opposing the incorporations by reference proposed in the NPRM; therefore we are updating the addresses and the incorporation by reference materials for the ICAO TI, the IMDG Code, and the UN Recommendations. In addition, we are updating the ISO address and adding two new ISO Standards. The updated editions of these standards become effective January 1, 2009.

The following currently referenced standards will be updated as shown in the amended § 171.7:

• *International Civil Aviation Organization (ICAO),* Technical Instructions for the Safe Transport of Dangerous Goods by Air, 2007–2008 Edition.

• *International Maritime Organization (IMO),* International Convention for the Safety of Life at Sea (SOLAS) Amendments 2000, Chapter II–2, Regulation 19, 2001 and The International Maritime Organization's International Maritime Dangerous Goods Code, 2006 Edition, Incorporating Amendment 33–06, English Edition, Volumes 1 and 2.

• *International Organization for Standardization,* ISO 10156:1996, Gases and Gas Mixtures—Determination of fire potential and oxidizing ability for the selection of cylinder valve outlets, Second edition February 1996 (E) and ISO 10156—2:2005, Gas cylinders—Gases and gas mixtures—Part 2: Determination of oxidizing ability of toxic and corrosive gases and gas mixtures, First edition, August 2005, (E).

• *Transport Canada,* Transportation of Dangerous Goods Regulations (Transport Canada TDG Regulations), August 2001 including Clear Language Amendments SOR/2001–286, Amendment 1 (SOR/2002–306) August 8, 2002; Amendment 2 (SOR/2003–273) July 24, 2003; Amendment 3 (SOR/2003–400) December 3, 2003; Amendment 4 (SOR/2005–216) July 13, 2005; and Amendment 5 (SOR/2005–279) September 21, 2005.

• *United Nations,* The UN Recommendations on the Transport of Dangerous Goods, Fourteenth revised edition (2005), Volumes I and II.

Section 171.14

This section prescribes transitional provisions for recently adopted

regulatory changes in the HMR. In a final rule, under Docket HM–218D (73 FR 4699; on January 28, 2008), we added a new entry for ''Ethanol and gasoline mixture *or* Ethanol and motor spirit *or* Ethanol and petrol mixture, *with more than 10% ethanol,* 3, UN3475, II'' in the HMT. Although we included a delayed compliance date for the implementation of the new identification number marking requirements in § 172.332(c)(6) and (c)(7), we did not provide the same transition period in the regulatory text for the continued use of the proper shipping names for these materials that were in effect prior to the publication of the HM–218D final rule. For example, for a gasoline and alcohol fuel blend containing 85 percent alcohol (E85), the most appropriate description prior to the HM–218D rulemaking was ''Flammable liquid, n.o.s., (ethanol, gasoline), 3, UN1993.'' Our intent was to minimize the costs of transitioning to this new description by allowing the continued use of shipping names for these materials that were in effect prior to publication of the HM–218D final rule for a period of two years from the effective date, as discussed in the HM–218D final rule preamble. To correct this oversight, in this rulemaking, we are adding a new paragraph (h) to specify that effective October 1, 2010, the new proper shipping name ''Ethanol and gasoline mixture or ethanol and motor spirit mixture or ethanol and petrol mixture,'' and the revised proper shipping name ''Gasohol *gasoline mixed with ethyl alcohol, with not more than 10% alcohol* must be used, as appropriate.

Section 171.25

Section 171.25 specifies additional requirements for the use of the IMDG Code when a hazardous material is offered for transportation to, from, or within the U.S. by vessel, and by motor carrier and rail, provided all or part of the movement is by vessel. Recently, an incident occurred in which a portable tank containing ''Argon, refrigerated liquid (cryogenic liquid),'' UN1951, stowed below the deck of a vessel released its contents, resulting in the asphyxiation deaths of three individuals who entered the confined cargo space where the portable tank was stowed. The HMR currently prohibit the stowage of such materials below deck (§ 176.76(g)) because of the potential hazard of asphyxiation when large volumes of refrigerated liquefied gases are released below the deck of a vessel in confined spaces. However, the IMDG Code does not prohibit the stowage of tanks below deck in all cases. Some refrigerated liquefied gases, including argon, are assigned to stowage ''Category B'' in column (16) of the dangerous goods list of the IMDG Code. Therefore, in the NPRM, we proposed to revise § 171.25(c)(5) to specify that portable tanks, cargo tanks, and tank cars containing cryogenic liquids must be ''on deck'' regardless of the stowage authorized in the IMDG Code.

Two commenters [Signal, VOHMA] support the proposal, but both express concern pertaining to its implementation. VOHMA states that ''we are concerned that vessels transiting U.S. ports and in compliance with the current IMDG Code authorization for ''under-deck'' stowage may be problematic'' and requests that PHMSA ensure that shippers are made aware of the requirement. We agree with the commenter. PHMSA submitted a proposal to the IMO Subcommittee on Dangerous Goods, Solid Cargoes and Containers to address the issue of stowage of cryogenic liquids as discussed above. IMO will adopt the provisions in the IMDG Code under Amendment 35–10. In the interim period between adoption in the HMR and adoption in the IMDG Code, PHMSA will work with the IMO and various trade associations to advise shippers and carriers of this new provision.

Signal recommends that PHMSA revise paragraph (d) of this section (*Use of the IMDG Code in port areas*) to clarify that the provision to store portable tanks, cargo tanks, and tank cars containing cryogenic liquids ''on deck'' is also applicable to port areas. The commenter expresses concern regarding vessels passing through U.S. port areas where cryogenic liquids may be stowed ''under-deck'' in accordance with the IMDG Code stowage requirements. The commenter believes the hazard is just as great to U.S. maritime workers even though the cargo may not be loaded or unloaded in the U.S. port of call. Additionally, pending a revision to paragraph (d), Signal also urges PHMSA to waive the proposed one year transition period and make the provisions for stowage of cryogenic liquids effective on the date of publication of this rulemaking. We agree with the commenter's concern regarding the applicability of the provision in U.S. port areas and due to the immediate nature of the risk associated with stowing bulk packagings of cryogenic liquids ''under-deck,'' in this final rule, we are adding a new paragraph (d)(3) to specify that this provision is applicable to U.S. port areas. We also agree with the recommendation to make the provisions effective immediately. Therefore, in this final rule, we are revising paragraphs (c)(5) and (d)(3) of § 171.25 to indicate that these specific requirements are effective 30 days after the date of publication of the rulemaking, except for shipments transporting these materials prior to the effective date of this amendment.

Part 172

Section 172.101 Hazardous Materials Table (HMT)

Section 172.101 contains the HMT and explanatory text for each of the columns in the HMT. We proposed to make various amendments to the HMT. Readers should review all changes for a complete understanding of the amendments. For purposes of the Government Printing Office's typesetting procedures, changes to the HMT appear under three sections of the Table, ''remove,'' ''add,'' and ''revise.'' Certain entries in the HMT, such as those with revisions to the proper shipping names, appear as a ''remove'' and ''add.'' Amendments to the HMT for the purpose of harmonizing with international standards include, but are not limited to, the following:

In the final rule for Docket HM–215G (69 FR 76044; December 20, 2004), we added new generic entries for Organometallic substances consistent with descriptions added to the UN Recommendations. In the final rule, we allowed the continued use of certain specific Organometallic entries; however, we anticipated removing the specific Organometallic entries from the HMT by January 1, 2007. The entries were to be removed because they were superseded by more appropriate generic entries, but were inadvertently overlooked. Therefore, in this final rule, we are removing the following Organometallic entries for consistency with the intent of HM–215G:

UN3052	Aluminum alkyl halides, liquid
UN3461	Aluminum alkyl halides, solid
UN3076	Aluminum alkyl hydrides
UN3051	Aluminum alkyls
UN1366	Diethylzinc
UN1370	Dimethylzinc
UN2445	Lithium alkyls, liquid
UN3433	Lithium alkyls, solid
UN3053	Magnesium alkyls
UN2005	Magnesium diphenyl

Portable tank Special Provision TP12 states, ''This material is considered highly corrosive to steel.'' The phrase ''highly corrosive to steel'' is not defined by any specific criteria. Further, ''TP12,'' unlike other TP codes, is simply a statement and does not apply any regulatory requirement. It is unclear

if all highly corrosive materials are assigned Special Provision TP12, or if this statement provides any useful guidance for selecting an appropriate portable tank. Therefore, we are revising the following entries by removing Special Provision TP12:

UN1716 Acetyl bromide
UN1717 Acetyl chloride
UN2584 Alkyl sulfonic acids, liquid or Aryl sulfonic acids, liquid with more than 5 percent free sulfuric acid
UN2571 Alkyl sulfuric acids
UN2817 Ammonium hydrogendifluoride, solution, PG II and III
UN2796 Battery fluid, acid
UN1736 Benzoyl chloride
UN1737 Benzyl bromide
UN1738 Benzyl chloride
UN1738 Benzyl chloride unstabilized
UN1739 Benzyl chloroformate
UN2692 Boron tribromide
UN1742 Boron trifluoride acetic acid complex, liquid
UN1743 Boron trifluoride propionic acid complex, liquid
UN1744 Bromine
UN1745 Bromine pentafluoride
UN1744 Bromine solutions
UN1746 Bromine trifluoride
UN2513 Bromoacetyl bromide
NA2742 sec-Butyl chloroformate
UN2353 Butyryl chloride
NA9263 Chloropivaloyl chloride
UN1754 Chlorosulfonic acid *with or without sulfur trioxide*
UN1755 Chromic acid solution, PG II and PG III
UN1758 Chromium oxychloride
UN2240 Chromosulfuric acid
NA9264 3,5-Dichloro-2,4,6-trifluoropyridine
UN1764 Dichloroacetic acid
UN1768 Difluorophosphoric acid, anhydrous
NA2927 Ethyl phosphonothioic dichloride, anhydrous or Ethyl phosphorodichloridate
NA2845 Ethyl phosphonous dichloride, anhydrous *pyrophoric liquid*
UN1776 Fluorophosphoric acid anhydrous
UN1778 Fluorosilicic acid
UN1777 Fluorosulfonic acid
UN1782 Hexafluorophosphoric acid
UN1789 Hydrochloric acid PG II and PG III
UN1786 Hydrofluoric acid and Sulfuric acid mixtures
UN1790 Hydrofluoric acid, *with more than 60 percent strength*
UN1790 Hydrofluoric acid, *with not more than 60 percent strength*
NA2742 Isobutyl chloroformate
UN3246 Methanesulfonyl chloride
NA9206 Methyl phosphonic dichloride
NA2845 Methyl phosphonous dichloride, *pyrophoric liquid*
NA1556 Methyldichloroarsine
UN1826 Nitrating acid mixtures, spent *with more than 50 percent nitric acid*
UN1826 Nitrating acid mixtures, spent *with not more than 50 percent nitric acid*
UN1796 Nitrating acid mixtures *with more than 50 percent nitric acid*
UN1796 Nitrating acid mixtures *with not more than 50 percent nitric acid*
UN2031 Nitric acid *other than red fuming, with more than 70 percent nitric acid*
UN2031 Nitric acid *other than red fuming, with not more than 20 percent nitric acid*
UN2031 Nitric acid *other than red fuming, with not more than 70 percent nitric acid*
UN2032 Nitric acid, red fuming
UN1798 Nitrohydrochloric acid
UN2308 Nitrosylsulfuric acid, liquid
UN1873 Perchloric acid *with more than 50 percent but not more than 72 percent acid, by mass*
UN1817 Pyrosulfuryl chloride
UN2879 Selenium oxychloride
UN1906 Sludge, acid
UN1828 Sulfur chlorides
UN1829 Sulfur trioxide, stabilized
UN1831 Sulfuric acid, fuming *with less than 30 percent free sulfur trioxide*
UN1831 Sulfuric acid, fuming *with 30 percent or more free sulfur trioxide*
UN1832 Sulfuric acid, spent
UN1830 Sulfuric acid *with more than 51 percent acid*
UN2796 Sulfuric acid *with not more than 51 percent acid*
UN1834 Sulfuryl chloride
UN1836 Thionyl chloride
UN2699 Trifluoroacetic acid
NA9269 Trimethoxysilane

We proposed to add a new non-bulk packaging section (§ 173.206) for the transportation of certain flammable, corrosive and toxic materials, specifically, chlorosilanes that have water-reactive properties. For a detailed summary of the rationale, see the discussion under § 173.206 in this section of the rulemaking. The following entries are revised in Column (8B) by replacing the current non-bulk packaging provision with ''206'':

UN1724 Allyltrichlorosilane, stabilized
UN1728 Amyltrichorosilane
UN1747 Butyltrichlorosilane
UN1753 Chlorophenyltrichlorosilane
UN2986 Chlorosilanes, corrosive, flammable, n.o.s.
UN2987 Chlorosilanes, corrosive, n.o.s.
UN2985 Chlorosilanes, flammable, corrosive, n.o.s.
UN3362 Chlorosilanes, toxic, corrosive, flammable, n.o.s.
UN3361 Chlorosilanes, toxic, corrosive, n.o.s.
UN1762 Cyclohexenyltrichlorosilane
UN1763 Cyclohexyltrichlorosilane
UN2434 Dibenzyldichlorosilane
UN1766 Dichlorophenyltrichlorosilane
UN1767 Diethyldichlorosilane
UN1162 Dimethyldichlorosilane
UN1769 Diphenyldichlorosilane
UN1771 Dodecyltrichlorosilane
UN2435 Ethylphenyldichlorosilane
UN1196 Ethyltrichlorosilane
UN1781 Hexadecyltrichlorosilane
UN1784 Hexyltrichlorosilane
UN2437 Methylphenyldichlorosilane
UN1250 Methyltrichlorosilane
UN1799 Nonyltrichlorosilane
UN1800 Octadecyltrichlorosilane
UN1801 Octyltrichlorosilane
UN1804 Phenyltrichlorosilane
UN1816 Propyltrichlorosilane
UN1298 Trimethylchlorosilane
UN1305 Vinyltrichlorosilane, stabilized

For consistency in the assignment of Portable tank Special Provision TP13 (which requires provision of self-contained breathing apparatus when certain hazardous materials are transported by vessel) to all chlorosilanes, the following entries are revised in Column (7) by adding Special Provision TP13:

UN2987 Chlorosilanes, corrosive, n.o.s.
UN1781 Hexadecyltrichlorosilane
UN1804 Phenyltrichlorosilane
UN1818 Silicon tetrachloride

We consider Portable tank Special Provision TP7 essential for the safe transport of chlorosilanes. This special provision requires the vapor space to be purged of air by nitrogen or other means. However, there is no consistent assignment of ''TP7'' to chlorosilanes. For enhanced safety and consistency with international regulations, the following entries are revised in Column (7) by adding Special Provision TP7:

UN3362 Chlorosilanes, toxic, corrosive, flammable, n.o.s.
UN3361 Chlorosilanes, toxic, corrosive, n.o.s.
UN1250 Methyltrichlorosilane
UN1305 Vinyltrichlorosilane, stabilized

Chlorosilanes of Class 3 and Class 8 are currently authorized for transport in metal IBCs under Special Provisions IB1 and IB2. Because metal IBCs have lift-up lids with clamp screws, we are concerned that the overturn of a metal IBC during an accident may lead to an opening of a lift-up lid and result in a

release of chlorosilanes from these packagings. To address these concerns, we are prohibiting the use of metal IBCs by removing the respective Special Provisions IB1 or Special Provision IB2 provisions from the following entries. We are also adding Special Provision TP7 to require the vapor space to be purged of air, as discussed above:

UN2986 Chlorosilanes, corrosive, flammable, n.o.s.
UN2987 Chlorosilanes, corrosive, n.o.s.
UN2985 Chlorosilanes, flammable, corrosive, n.o.s.

Bottom discharge openings are currently allowed on portable tanks used for the transport of most chlorosilanes. For example, some chlorosilane entries are assigned Portable tank Special Provision T7, which provides for bottom opening requirements. As part of a voluntary initiative to enhance safety, portions of the regulated community have begun to use only portable tanks without bottom discharge connections. To further enhance safety and to prohibit the use of portable tanks with bottom discharge openings, we are revising the following entries by replacing Special Provision T7 with Special Provision T10. Special Provision T10 prohibits the use of bottom discharge openings. We are also deleting the respective IBC Special Provisions IB1 or IB2 to prohibit the use of metal IBCs and adding Special Provision TP7 to require the vapor space to be purged of air, as discussed above:

UN1724 Allyltrichlorosilane, stabilized
UN1728 Amyltrichlorosilane
UN1747 Butyltrichlorosilane
UN1753 Chlorophenyltrichlorosilane
UN1762 Cyclohexenyltrichlorosilane
UN1763 Cyclohexyltrichlorosilane
UN2434 Dibenzyldichlorosilane
UN1766 Dichlorophenyltrichlorosilane
UN1767 Diethyldichlorosilane
UN1162 Dimethyldichlorosilane
UN1769 Diphenyldichlorosilane
UN1771 Dodecyltrichlorosilane
UN2435 Ethylphenyldichlorosilane
UN1196 Ethyltrichlorosilane
UN1781 Hexadecyltrichlorosilane
UN1784 Hexyltrichlorosilane
UN2437 Methylphenyldichlorosilane
UN1799 Nonyltrichlorosilane
UN1800 Octadecyltrichlorosilane
UN1801 Octyltrichlorosilane
UN1804 Phenyltrichlorosilane
UN1816 Propyltrichlorosilane
UN1298 Trimethylchlorosilane

As a safety measure for the transport of most chlorosilanes, we are applying Special Provision T10, to prohibit bottom discharge openings on portable tanks used to transport chlorosilanes. However, for chlorosilanes meeting the criteria of Division 4.3 and for ''n.o.s.'' entries meeting the criteria for Classes 3, 8 and Division 6.1 that have been assigned Special Provision T10, we are adopting the general assignment of Special Provision T14 rather than Special Provision T10. In addition to prohibiting bottom outlet openings, Special Provision T14 requires a higher minimum test pressure for the periodic hydrostatic pressure test. We believe a higher minimum test pressure would provide an increased level of safety when transporting these types of chlorosilanes in portable tanks. Some chlorosilanes meeting the above classification criteria (*e.g.*, UN2987 and UN1295) have already been assigned Special Provision T14. Therefore, to enhance safety and for consistency in assigning special provisions, we are revising the following entries by replacing Special Provision T10 with Special Provision T14 in Column (7):

UN2988 Chlorosilanes, water-reactive, flammable, corrosive, n.o.s.
UN1183 Ethyldichlorosilane
UN1242 Methyldichlorosilane

The following entries are revised by assigning PG II in column (5) rather than PG I. The flammability properties (*i.e.*, the flashpoint) place them in PG II, and no additional evidence indicates the entries are more corrosive than all the other chlorosilanes classed as a Class 3, subsidiary Class 8, PG II (*e.g.*, UN1126). Therefore, in accordance with the Precedence of hazard table (§ 173.2a), the entries are classed as Class 3, subsidiary Class 8, PG II materials. In addition, as discussed above, we are replacing Special Provision T7 with Special Provision T10 for most chlorosilanes, however, for these entries Special Provision T10 replaces the previously assigned Special Provision T11. The entries are revised in Column (5) by assigning PG II, and in Column (7) by replacing Special Provision T11 with Special Provision T10:

UN1250 Methyltrichlorosilane
UN1305 Vinyltrichlorosilane, stabilized

As discussed above, for most chlorosilanes, we are replacing Special Provision T7 with Special Provision T10, which prohibits bottom discharge openings. In addition, we are revising the following entries by replacing Special Provision T11 with Special Provision T14 which also prohibits bottom discharge openings in portable tanks:

UN2986 Chlorosilanes, corrosive, flammable, n.o.s.
UN2985 Chlorosilanes, flammable, corrosive, n.o.s.
UN3362 Chlorosilanes, toxic, corrosive, flammable, n.o.s.
UN3361 Chlorosilanes, toxic, corrosive, n.o.s.

Chlorosilanes of Division 6.1 are authorized for transport in metal IBCs under Special Provision IB1. As discussed above, we are prohibiting the use of metal IBCs for the transport of chlorosilanes. Additionally, Special Provision TP27 is recommended for chlorosilanes assigned Special Provision T14. If found acceptable according to the test pressure definition in § 178.274, Special Provision TP27 allows a test pressure of 4 bar instead of 6 bar. We are assigning Portable tank Special Provision TP27 to all ''n.o.s.'' entries of Classes 3, 8 and Division 6.1. Entries for Division 4.3 are assigned Special Provision TP27 because of higher risk of a possible release of a flammable gas. The following entries are revised in Column (7) by deleting Special Provision IB1 and adding Special Provision TP27:

UN3362 Chlorosilanes, toxic, corrosive, flammable, n.o.s.
UN3361 Chlorosilanes, toxic, corrosive, n.o.s.

The following entries are revised by adding Special Provision IP2 to correct an inconsistency. When a hazardous material is assigned Special Provision IP2, the material must be offered for transportation in a closed freight container or a closed transport vehicle. ''Chloroacetic acid, solid,'' UN1751 is the only Division 6.1, PG II material assigned Special Provision IB8 that is not also assigned Special Provision IP2. Similarly, the remaining entries listed below are Division 5.1, PG II materials assigned Special Provision IB8 but not Special Provision IP2. For consistency in the assignment of Special Provision IP2, the following entries are revised in Column (7) by adding Special Provision IP2:

UN1751 Chloroacetic acid, solid
UN1463 Chromium trioxide, anhydrous.
UN2465 Dichloroisocyanuric acid, dry or Dichloroisocyanuric acid salts
UN1473 Magnesium bromate
UN2627 Nitrites, inorganic, n.o.s.
UN1484 Potassium bromate
UN1485 Potassium chlorate
UN1487 Potassium nitrate and sodium nitrite mixtures
UN1488 Potassium nitrite
UN1490 Potassium permanganate
UN1493 Silver nitrate
UN1494 Sodium bromate
UN1495 Sodium chlorate
UN3247 Sodium peroxoborate, anhydrous

UN2468 Trichloroisocyanuric acid, dry
UN1512 Zinc ammonium nitrite
UN1514 Zinc nitrate

Special Provision 36 places net quantity limits per package for medicines classed as hazardous materials. However, the quantity limits in the special provision are inconsistent with the net quantity packaging limits authorized under the limited quantities exceptions for these materials in §§ 173.150 and 173.153 of the HMR. Therefore, the following entries are revised in Column (7) by removing Special Provision 36:

UN3248 Medicine, liquid, flammable, toxic, n.o.s.
UN1851 Medicine, liquid, toxic, n.o.s.
UN3249 Medicine, solid, toxic, n.o.s.

Chemical oxygen generators are subject to stringent packaging and shipping requirements. We are adding a new Special Provision 62 to the following entries to emphasize that chemical oxygen generators are not authorized to be transported under the generic ''oxidizer, n.o.s.'' entries.

UN3098 Oxidizing liquid, corrosive, n.o.s.
UN3139 Oxidizing liquid, n.o.s.
UN3099 Oxidizing liquid, toxic, n.o.s.
UN3085 Oxidizing solid, corrosive, n.o.s.
UN3137 Oxidizing solid, flammable, n.o.s.
UN1479 Oxidizing solid, n.o.s.
UN3100 Oxidizing solid, self-heating, n.o.s.
UN3087 Oxidizing solid, toxic, n.o.s.
UN3121 Oxidizing solid, water-reactive, n.o.s.

The following entries are revised by adding a reference to packaging section ''307'' to Column (8A) for consistency with international regulations regarding exception from the requirements for manufactured articles and apparatuses containing minimal amounts of inert gas. See the discussion under § 173.307 in this section of the rulemaking for additional information regarding this change.

UN1006 Argon, compressed
UN1046 Helium, compressed
UN1970 Krypton, compressed
UN1065 Neon, compressed
UN2036 Xenon, compressed

The entry ''Amines, flammable, corrosive, n.o.s. *or* Polyamines, flammable, corrosive, n.o.s.,'' UN2733 is revised to include the PG II and PG III entries in proper order to correct inadvertent assignment of the entries to UN2734. This revision appears as a ''Remove/Add'' in this rulemaking.

The entry ''Amines, liquid, corrosive, flammable n.o.s. *or* Polyamines, liquid corrosive, flammable n.o.s.,'' UN2734 is revised to include a comma after flammable in both proper shipping names and a comma between liquid and corrosive in the second proper shipping name in Column (2) and to remove the PG II and PG III entries for ''flammable, corrosive'' to correct inadvertent assignment of these entries. This revision appears as a ''Remove/Add'' in this rulemaking.

The entry ''Batteries, dry, containing potassium hydroxide solid, *electric storage*,'' UN3028 is revised by adding to Column (7) a reference to new Special Provision 237.

The entries ''Boron trifluoride,'' UN1008 and ''Hydrogen iodide, anhydrous'' UN2197 are revised by adding the Class 8 subsidiary hazard label to Column (6) for consistency with international regulations and for consistency with all other Division 2.3 toxic gas entries in the HMT that also have the Class 8 subsidiary hazard.

The entry ''Calcium manganese silicon,'' UN2844 is revised in Column (7) by removing Special Provision IP2. When this material is transported in other than metal or rigid plastic IBCs, Special Provision IP2 specifies they must be transported in a closed freight container or a closed transport vehicle. However, this is inconsistent with other Division 4.3, PG III materials that are not subject to this special provision.

For consistency with UN Recommendations, the entry ''Chlorine,'' UN1017 is revised in Column (6) by adding the Division 5.1 subsidiary hazard label. This label will help communicate that this material may cause or enhance the combustion of other materials.

The hazardous materials descriptions for the entries ''Chloronitrobenzene, liquid *ortho*,'' UN3409 and ''Chloronitrobenzenes, solid *meta or para*,'' UN1578 are revised in Column (2) by removing the italicized word(s). The italicized word(s) associated with the proper shipping names are a potential source of confusion and are removed for clarification and consistency with the same entries in the UN Recommendations. This revision appears as a ''Remove/Add'' in this rulemaking.

The instruction for the entry ''*Cartridges, sporting, see* Cartridges for weapons, inert, porjectile, *or* Cartridges, small arms'' is revised in Column (2) by correcting the misspelling of ''projectile.'' This revision appears as a ''Remove/Add'' in this rulemaking.

The proper shipping name for the entry ''Corrosive, liquid, acidic, inorganic, n.o.s.,'' UN3264 is revised in Column (2) by removing the comma appearing between ''corrosive'' and ''liquid'' to read ''Corrosive liquid, acidic, inorganic, n.o.s.'' This revision appears as a ''Remove/Add'' in this rulemaking.

The proper shipping name for the entry ''Dyes, liquid, corrosive, n.o.s., or Dye intermediates, liquid, corrosive, n.o.s.,'' UN2801 is revised in Column (2) by italicizing the ''or'' in the proper shipping name. This revision appears as a ''Remove/Add'' in this rulemaking.

The entries ''Environmentally hazardous substances, liquid, n.o.s.,'' UN3082 and ''Environmentally hazardous substances, solid, n.o.s.,'' UN3077 are revised by adding a new Special Provision 335 in Column (7). Special Provision 335 clarifies that mixtures of non-hazardous solids and environmentally hazardous liquids or solids may be classified as UN3077 provided there is no free liquid visible at the time the substance is loaded or at the time the packaging or transport unit is closed.

In addition to flammable liquid fuel cell cartridges already provided for by the HMR, there are a number of other rapidly advancing fuel cell technologies employing a range of fuels. In this final rule, we are revising the entry for fuel cells containing a flammable liquid (UN3473) to include fuel cell cartridges containing a flammable liquid packed with or contained in equipment, and are adding four new proper shipping names to the HMT to describe the range of fuel used in fuel cell cartridges. These entries are: (1) Water-reactive substances (UN3476); (2) corrosive substances (UN3477); (3) liquefied flammable gas (UN3478); and (4) hydrogen in metal hydride (UN3479)). Readers should note that liquefied flammable gases and hydrogen in a metal hydride are both Division 2.1 materials used in fuel cell cartridges. However, the provisions necessary for the safe transportation of these articles are quite different and therefore, it is necessary to distinguish them with separate shipping descriptions.

A new entry ''Fuel cell cartridges or Fuel cell cartridges contained in equipment or Fuel cell cartridges packed with equipment, *containing corrosive substances*,'' UN3477 is added.

The proper shipping name for the entry ''Fuel cell cartridges, *containing flammable liquids*,'' UN3473 is revised in Column (2) to read ''Fuel cell cartridges *or* Fuel cell cartridges contained in equipment *or* Fuel cell cartridges packed with equipment, *containing flammable liquids*.'' This revision appears as a ''Remove/Add'' in this rulemaking.

A new entry ''Fuel cell cartridges *or* Fuel cell cartridges contained in equipment *or* Fuel cell cartridges packed with equipment, *containing hydrogen in metal hydride*,'' UN3479 is added.

A new entry ''Fuel cell cartridges *or* Fuel cell cartridges contained in equipment *or* Fuel cell cartridges packed with equipment, *containing liquefied flammable gas*,'' UN3478 is added.

A new entry ''Fuel cell cartridges *or* Fuel cell cartridges contained in equipment *or* Fuel cell cartridges packed with equipment, *containing water-reactive substances*,'' UN3476 is added.

The entry ''Gasohol,'' NA1203 is revised in Column (7) by adding Special Provision 177 to indicate that mixtures of gasoline and ethanol with less than 10 percent ethanol for use in internal combustion engines (*e.g.*, automobiles) must be assigned the PG II entry regardless of variations in volatility.

The entry ''Gasoline,'' UN1203, is revised in Column (7) by adding Special Provision 177 and Special Provision IB2. Special Provision 177 is added to indicate that gasoline for use in an internal combustion engine (*e.g.*, automobiles) must be assigned the PG II entry regardless of variations in volatility. Special Provision IB2 was inadvertently removed under Docket No. HM–213 (68 FR 52363; September 3, 2003).

The proper shipping name for the entry ''Hydrogen in a metal hydride storage system,'' UN3468 is revised in Column (2) to read ''Hydrogen in a metal hydride storage system *or* Hydrogen in a metal hydride storage system contained in equipment *or* Hydrogen in a metal hydride storage system packed with equipment.'' This revision appears as a ''Remove/Add'' in this rulemaking.

A new entry ''1-Hydroxybenzotriazole, anhydrous, *dry or wetted with less than 20 percent water, by mass*,'' UN0508 is added.

A new entry ''1-Hydroxybenzotriazole, anhydrous, wetted *with not less than 20 percent water, by mass*,'' UN3474 is added. One commenter [AHS] requests that PHMSA revise this entry to reflect the modified entry agreed upon by a recent UN Sub-Committee meeting. The modified entry, ''1-Hydroxybenzotriazole, monohydrate,'' UN3474 would also have Special Provision 162 deleted from the entry. AHS notes that, ''* * * The U.S. supported this change and * * * was instrumental in getting the modification accepted'' by the UN Subcommittee. AHS also indicates the modified entry is, ''* * * a more accurate description of this material.'' Additionally, the commenter requests that PHMSA add the modified entry in the same manner as the addition of the new entry ''Powder, smokeless,'' UN0509, where the entry has a ''D'' in Column (1) indicating it is appropriate for domestic transport but may not be appropriate for international commerce. [The rationale for including ''D'' in Column (1) for the entry ''Powder, smokeless,'' UN0509 is explained in greater detail in the discussion of changes to § 173.62 in this section of the rulemaking.] Because the modified entry for UN3474 was not proposed in the NPRM, the request to include the modified version of the entry in the HMT (including the deletion of Special Provision 162 from the entry) is beyond the scope of this rulemaking. However, we will treat the commenter's remarks as a petition for rulemaking and consider the request for the modified hazardous materials description for inclusion in the HMT in a future rulemaking. No other comments opposing this proposal to add this entry were received; therefore, in this final rule, we are adopting the proposal without change. This appears as an ''Add'' in this rulemaking.

The entry ''Hypochlorite solutions,'' UN1791 is revised by adding the PG III description and associated packaging provisions to Columns (5) and (8), respectively. The PG III information was inadvertently omitted in a final rule under Docket HM–215I (71 FR 78596; December 29, 2006). This revision appears as a ''Remove/Add'' in this rulemaking.

The entry ''Magnesium nitrate,'' UN1474 is revised in Column (7) by adding a new Special Provision 332. Special Provision 332 specifies that magnesium nitrate hexahydrate is not subject to the HMR. Testing conducted by independent laboratories on magnesium nitrate hexahydrate in accordance with Test O.1: *Test for Oxidizing Solids* of the *UN Manual of Tests and Criteria* indicated magnesium nitrate hexahydrate does not have a burning rate to meet the criteria as a Division 5.1 oxidizer.

The hazardous materials description for the entry ''Nitric acid, *other than red fuming, with not more than 70 percent nitric acid*,'' UN2031, PG II is revised in Column (2) to read ''Nitric acid, *other than red fuming, with at least 65 percent, but not more than 70 percent nitric acid*'' to conform with proper shipping names that have similar descriptions (*e.g.*, UN3366). This entry is also revised in Column (7) by adding Special Provision IP15, and in Column (10B) by removing vessel stowage codes ''44,'' ''110,'' and ''111,'' and adding ''74.'' Special Provision IP15 specifies that for UN2031 with more than 55% nitric acid, the use of rigid plastic IBCs and composite IBCs with a rigid plastic inner receptacle would be authorized for two years from the date of manufacture of the IBC. Finally, the entry is revised by adding a Division 5.1 subsidiary hazard label to column (6). This revision appears as a ''Remove/Add'' in this rulemaking.

A new entry ''Nitric acid, *other than red fuming, with less than 65 percent nitric acid*,'' UN2031, PG II is added.

The entry ''Nitrocellulose, solution, flammable *with not more than 12.6 percent nitrogen, by mass, and not more than 55 percent nitrocellulose*,'' UN 2059, PG I, PG II and PG III is revised in Column (7) by adding a new Special Provision 198. Special Provision 198 authorizes nitrocellulose solutions containing less than 20% nitrocellulose to be transported as paint or printing ink.

The instruction for the entry ''*2,5-Norbornadiene, stabilized, see* Bicyclo 2,2,1 hepta-2,5-diene, stabilized'' is revised in Column (2) by enclosing ''2,2,1'' in brackets to denote the correct spelling and to be consistent with the proper shipping name entry ''Bicyclo [2,2,1] hepta-2,5-diene, stabilized or 2,5-Norbornadiene, stabilized,'' UN2251. This revision appears as a ''Remove/Add'' in this rulemaking.

The entry ''Organometallic substance, liquid, water-reactive, flammable,'' UN3399, PG I and PG II, is revised in Column (10A) by removing vessel stowage location code ''E'' and adding ''D'' to harmonize with the IMDG Code and SOLAS. Amendments were also made to SOLAS Chapter II–2/Regulation 19 strictly prohibiting the stowage of 4.3 liquids having a flashpoint less than 23 °C under deck or in enclosed roll-on/roll-off (ro-ro) vessel spaces. SOLAS Chapter II–2/Regulation 19 sets out fire-fighting construction and equipment requirements for vessels carrying dangerous goods. We believe this amendment is necessary to avoid the risk of a carrier stowing a package in an enclosed space that is not properly equipped for a Class 4.3 material with a subsidiary Class 3 and a flashpoint less than 23 °C. When a flammable liquid with a flashpoint less than 23 °C is stowed under deck, the space must be ventilated but cannot have electrical equipment in the space. In most cases, natural or mechanical ventilation is used. However, powered ventilation is required for Class 4.3 under deck due to the risk of moisture in the air and the entry of sea water into the hold through

the ventilation openings. This change would prohibit only UN3399 from under deck stowage. All other Class 4.3 liquids, with a subsidiary Class 3 and flashpoint less than 23 °C, are not permitted under deck or in enclosed ro-ro spaces under the IMDG Code.

The entry ''Organometallic substance, solid, water-reactive,'' UN3395 is revised to include the letter ''G'' in Column (1) to correct an inadvertent omission.

The entry ''Organometallic substance, solid, water-reactive,'' UN3395 is revised by adding the letter ''G'' in Column (1) to correct an inadvertent omission.

The entry ''Organophosphorus compound, toxic, flammable, n.o.s,'' UN3279 is revised by adding the letter ''G'' in Column (1) to correct an inadvertent omission.

The proper shipping name for the entry ''Pentaerythrite tetranitrate mixture, desensitized, solid, n.o.s.,'' UN3344 is revised in Column (2) to read ''Pentaerythrite tetranitrate mixture, desensitized, solid, n.o.s. *or* Pentaerythritol tetranitrate mixture, desensitized, solid, n.o.s. *or* PETN mixture, desensitized, solid, n.o.s.,'' to conform to proper shipping names that have similar descriptions (*e.g.*, UN0411). This revision appears as a ''Remove/Add'' in this rulemaking.

The entry ''Polychlorinated biphenyls, solid,'' UN3432 is revised in Column (7) by adding Special Provisions IP2 and IP4 for consistency with similar requirements for ''Polyhalogenated biphenyls, solid *or* Polyhalogenated terphenyls, solid,'' UN3152. Special Provisions IP2 and IP4 require IBCs other than metal or rigid plastic to be offered for transportation in a closed freight container or closed transport vehicle and require flexible, fiberboard, or wooden IBCs to be sift-proof and water-resistant or be fitted with a sift-proof or water-resistant liner, respectively.

The entries ''Potassium persulfate,'' UN1492 and ''Sodium persulfate,'' UN1505, are revised in Column (10B) by removing vessel stowage code ''56'' and adding ''145.''

A new entry ''Powder, smokeless,'' UN0509, is added. A discussion of changes to § 173.62 in this section of the rulemaking provides an explanation of the addition of this entry.

The proper shipping name for the entry ''Receptacles, small, containing a gas (gas cartridges) *non-flammable without release device, not refillable and not exceeding 1 L capacity*,'' UN2037, 2.2 (5.1) is revised in Column (2) by correcting the word ''agas'' to read ''gas.'' Additionally, to harmonize this proper shipping name and punctuation with international regulations and standards, the word ''non-flammable'' is revised to read ''oxidizing'' and enclosed in parentheses, the word ''or'' is added and italicized before the words ''gas cartridges,'' and the parentheses enclosing the words ''gas cartridges'' are removed. The proper shipping name is corrected to read ''Receptacles, small, containing gas *or* gas cartridges *(oxidizing) without release device, not refillable and not exceeding 1 L capacity*.'' This revision appears as a ''Remove/Add'' in this rulemaking.

The proper shipping name for the entry ''Receptacles, small, containing gas (gas cartridges) *flammable without release device, not refillable and not exceeding 1 L capacity*,'' UN2037, 2.1 is revised in Column (2) to harmonize proper shipping name with international regulations and standards. The parentheses enclosing ''gas cartridges'' are removed and the word ''flammable'' is enclosed in parentheses. Additionally, the word ''or'' is added and italicized before the words ''gas cartridges.'' The proper shipping name is corrected to read ''Receptacles, small, containing gas *or* gas cartridges *(flammable) without release device, not refillable and not exceeding 1 L capacity*.'' This revision appears as a ''Remove/Add'' in this rulemaking.

The proper shipping name for the entry ''Receptacles, small, containing gas (gas cartridges) *non-flammable without release device, not refillable and not exceeding 1 L capacity*,'' UN2037, 2.2 is revised in Column (2) to harmonize proper shipping name with international regulations and standards. The parentheses enclosing ''gas cartridges'' are removed and the word ''non-flammable'' is enclosed in parentheses. Additionally, the word ''or'' is added and italicized before the words ''gas cartridges.'' The proper shipping name is corrected to read ''Receptacles, small, containing gas *or* gas cartridges *(non-flammable) without release device, not refillable and not exceeding 1 L capacity*.'' This revision appears as a ''Remove/Add'' in this rulemaking.

The proper shipping name for the entry ''Regulated medical waste, n.o.s. *or* Clinical waste, unspecified, n.o.s. or (BIO) Medical waste, n.o.s.,'' UN3291 is revised in Column (2) to include ''Biomedical waste, n.o.s.'' and ''Medical waste, n.o.s.'' to clarify that these names may also be used under the HMR and to harmonize the proper shipping names for regulated medical waste with those prescribed in international regulations. This revision appears as a ''Remove/Add'' in this rulemaking.

The proper shipping names for several ''Self-heating solid'' materials, specifically UN3088, UN3126, UN3127, UN3128, are revised in Column (2) to remove a comma following the word ''Self-heating.'' These revisions appear as ''Remove/Add'' in this rulemaking.

The proper shipping name for the entry ''Trinitrophenol, wetted,'' UN1344 is revised in Column (2) to read ''Trinitrophenol, *or* Picric acid, wetted,'' to conform to proper shipping names that have similar descriptions (*e.g.*, UN3364). This revision appears as a ''Remove/Add'' in this rulemaking.

The proper shipping name for the entry ''Trinitrotoluene, wetted,'' UN1356 is revised to read ''Trinitrotoluene, wetted or TNT, wetted,'' to conform to proper shipping names that have similar descriptions (*e.g.*, UN3366). This revision appears as a ''Remove/Add'' in this rulemaking.

A new entry ''Signals, distress, *ship*,'' UN0505 is added.

A new entry ''Signals, distress, *ship*,'' UN0506 is added.

A new entry ''Signals, smoke,'' UN0507 is added.

Currently, no portable tank instructions are assigned to ''Water-reactive liquid, corrosive, n.o.s.,'' UN3129; ''Water-reactive liquid, n.o.s.,'' UN3148; or to the PG I entries for ''Water reactive solid, corrosive, n.o.s.,'' UN3131; and ''Water-reactive solid, n.o.s.,'' UN2813. We are adding portable tank assignments (portable tank special provisions) consistent with the ''Guidelines for Assigning Portable Tank Requirements to Substances in Classes 3 to 9.'' These assignments are consistent with similarly classed entries in the HMT. The entries are revised in Column (7) as follows:

The entry ''Water-reactive liquid, corrosive, n.o.s.,'' UN3129, PG I, is revised by adding Special Provisions T14, TP2, and TP7.

The entry ''Water-reactive liquid, corrosive, n.o.s.,'' UN3129, PG II, is revised by adding Special Provisions T11 and TP2.

The entry ''Water-reactive liquid, corrosive, n.o.s.,'' UN3129, PG III, is revised by adding Special Provisions T7 and TP1.

The entry ''Water-reactive liquid, n.o.s.,'' UN3148, PG I, is revised by adding Special Provisions T9, TP2, and TP7.

The entry ''Water-reactive liquid, n.o.s.,'' UN3148, PG II, is revised by adding Special Provisions T7 and TP2.

The entry ''Water-reactive liquid, n.o.s.,'' UN3148, PG III, is revised by adding Special Provisions T7 and TP1.

The entry ''Water-reactive solid, corrosive, n.o.s,'' UN3131, PG I, is revised by adding Special Provisions T9, TP7, and TP33.

The entry ''Water-reactive solid, n.o.s.,'' UN2813, PG I, is revised by adding Special Provisions T9, TP7, and TP33.

The proper shipping name for the entry ''Xenon,'' UN2036, is revised to read ''Xenon, compressed,'' UN2036, for consistency with proper shipping names for other compressed gases (*i.e.*, inert gases). This revision appears as a ''Remove/Add'' in this rulemaking.

Appendix B to § 172.101

Appendix B to § 172.101 lists Marine Pollutants regulated under the HMR and prescribes requirements for classifying and describing a marine pollutant. In the NPRM, we proposed to amend the introductory text and the List of Marine Pollutants to add an allowance for the use of the GHS-based classification criteria for materials toxic to the aquatic environment (marine pollutants) contained in the IMDG Code.

We received several comments [CPTD, COSTHA, DGAC, Deeds, VOHMA] supporting our proposal to maintain the current regulatory approach to facilitate transportation without mandating use of the new GHS-based criteria for determination of a marine pollutant. COSTHA ''* * * supports PHMSA's decision not to adopt the new IMDG classification criteria for Marine Pollutants and not to remove Appendix B from the 172.101.'' CPTD indicates, ''* * * this new classification system is unnecessarily complicated, and * * * would involve an additional layer of complexity without a corresponding public benefit.'' Deeds recommends that if we maintain the differentiation between marine pollutants and severe marine pollutants in the List of Marine Pollutants, then PHMSA should adopt the GHS-based criteria in the IMDG Code as the basis for determining whether a marine pollutant is a severe marine pollutant. We disagree. Using the GHS-based criteria to determine a severe marine pollutant runs counter to our proposal not to mandate the use of such criteria. Therefore, for these reasons, in this final rule, we are adopting the amendment as proposed.

We also proposed to remove a number of entries that no longer meet the criteria for a marine pollutant. These entries were inadvertently retained in a rulemaking under Docket HM–215D (66 FR 33316; June 21, 2001 and 67 FR 15743; April 3, 2002). We did not receive any comments opposing the removal of these entries and, therefore, are removing the following entries from the List of Marine Pollutants: ''5-Ethyl-2-picoline,'' ''Ethyl propenoate, inhibited,'' ''Isopropenylbenzene,'' and ''2-Phenylpropene.''

One commenter [CPTD] requests that we remove an additional entry (low aromatic mineral spirit (white spirit, low 15–20%)) from the List of Marine Pollutants in Appendix B to § 172.101 because it would not meet the criteria for a marine pollutant using the IMDG Code. The removal of additional entries from the List of Marine Pollutants in Appendix B to § 172.101 is beyond the scope of this rulemaking. We did not propose to remove entries other than those being removed as a correction to an oversight from the HM–215D rulemaking, nor did we request comments on entries based on use of the GHS-based classification criteria in the IMDG Code that should be removed. However, we encourage the commenter to petition PHMSA to remove the entry with data demonstrating that the material would not meet the criteria under the IMDG Code or to apply for approval to have the material excepted as a marine pollutant in accordance with paragraph 5 of the introduction to Appendix B of § 172.101.

Section 172.102

Section 172.102 lists a number of special provisions applicable to the transportation of specific hazardous materials. Special provisions contain packaging requirements, prohibitions, and exceptions applicable to particular quantities or forms of hazardous materials. Unless otherwise noted, we received no comments opposing these proposals; therefore, in this final rule, we are adopting these proposals without change.

For consistency with international regulations, we are amending § 172.102 Special provisions, as follows:

Special Provision 36 specifies maximum net quantity limits per package for the transport of medicines classified as flammable or toxic (*i.e.*, UN1851, UN3248, and UN3249). These limits are inconsistent with the packaging limits authorized in limited quantity exceptions for these materials in §§ 173.150 and 173.153 of the HMR. The entries were initially introduced to the UN Recommendations with a special provision limiting the materials to PG II and III and requiring the materials to have a maximum net quantity per package of 5 L or 5 kg. However, since then, these materials have been authorized in the HMR as limited quantities and consumer commodities. This has created an inconsistency between the quantity limits per package in Special Provision 36 and the limits outlined in the limited quantity exceptions. Therefore, to resolve this inconsistency, we are removing Special Provision 36.

Special Provision 137 specifies conditions for exception from the HMR for certain types of vegetable fibers. We are revising this special provision to include ''tampico fiber, dry'' having a minimum baling density of 360 kg/m^3 as being eligible for this exception.

Special Provision 138 specifies insolubility criteria for lead compounds. We are revising the special provision by adding clarifying language that specifies lead compounds meeting the insolubility criteria outlined in the special provision are not subject to the HMR unless they meet the criteria for one of the other hazard classes.

Special Provision 150 specifies composition limits for uniform mixtures of fertilizers containing ammonium nitrate as the main ingredient. We are revising the composition limits outlined in paragraph (b) of the provision by adding the words ''and/or mineral calcium sulphate'' after ''dolomite.''

In the final rule under Docket HM–215G (69 FR 76044; December 20, 2004), we added new generic entries to describe Organometallic materials consistent with descriptions added to the UN Recommendations but allowed the continued use of several specific Organometallic entries (*e.g.*, Dimethylzinc, UN1370) that were currently in the HMT. We anticipated removing these remaining entries from the HMT by January 1, 2007. The entries were to be removed because they were superseded by the addition of the more appropriate generic entries. However, they currently remain in the HMT. Therefore, we are removing the remaining specific Organometallic entries for consistency with the original intent of HM–215G to remove the entries by January 1, 2007. In addition, we are removing Special Provision 173. Special Provision 173 provides the option to use an appropriate generic entry listed in the HMT to describe a specific Organometallic material and was only assigned to those Organometallic materials. Because new generic entries have been added to the HMT this special provision only applies to the rulemaking entries that are to be removed, this special provision has become obsolete.

Special Provision 177 requires materials for use in internal combustion engines (*e.g.*, in automobiles) to be assigned the PG II entry regardless of variations in volatility of the material. Currently, we assign Special Provision 177 to the entry ''Ethanol and gasoline

mixture *or* ethanol and motor spirit mixture or ethanol and petrol mixture,'' UN3475. In the NPRM, we proposed to revise Special Provision 177 to specify its application to both gasoline and ethanol/gas mixtures for consistency with UN Recommendations that assign similar provisions to gasoline and mixtures of ethanol and gasoline. One commenter [American Trucking Associations] suggests that the language in Special Provision 177 is confusing in that, as written, Special Provision 177 requires that ''gasoline or ethanol and gasoline mixtures must be assigned to *this entry* regardless of variations in volatility,'' indicating assignment to a single entry when the special provision is actually assigned to multiple entries. We agree. Therefore, in this final rule, we are revising Special Provision 177 to read ''gasoline or ethanol and gasoline mixtures must be assigned to Packing Group II regardless of variations in volatility.''

Special Provision 188 specifies conditions for exception from the HMR for small lithium cells and batteries. We are revising the special provision to require the reporting of incidents that occur as a direct result of a fire, violent rupture, explosion, or a dangerous evolution of heat.

Special Provision 189 specifies conditions for exception from the HMR for medium lithium cells and batteries. We are revising the special provision to require the reporting of incidents that occur as a direct result of a fire, violent rupture, explosion, or a dangerous evolution of heat.

A new Special Provision 198 is being added to permit nitrocellulose solutions containing less than 20% nitrocellulose to be transported as paint or printing ink, as applicable.

A new Special Provision 237 is being added to specify that ''Batteries, dry, containing potassium hydroxide solid, *electric storage*'' must be prepared and packaged in accordance with the requirements of § 173.159(a) and for transportation by aircraft, § 173.159(b)(2).

A new Special Provision 332 is added to specify magnesium nitrate hexahydrate is not subject to the HMR.

A new Special Provision 335 is added to clarify proper classification of mixtures of solids which are not subject to the HMR and environmentally hazardous liquids or solids. Special Provision 335 specifies these mixtures would be classified as UN3077 and may be transported under that entry provided there is no free liquid visible at the time the material is loaded or the packaging or transport unit is closed.

A new Special Provision IP15 is added to indicate that for ''Nitric acid,'' UN2031, with more than 55% nitric acid, the use of rigid plastic IBCs and composite IBCs with a rigid plastic inner receptacle is permitted for two years from the date of manufacture of the IBC.

Special Provision N82 references § 173.306 for classification criteria for flammable aerosols. However, classification criteria for flammable aerosols are found in § 173.115, specifically, in paragraph (k). Special Provision N82 is revised to reference § 173.115.

A new Special Provision N90 is added to prohibit the use of metal packagings for transport of ''1-Hydroxybenzotriazole, anhydrous, wetted *not less than 20 percent water, by mass*,'' UN3474.

Special Provision TP12 is removed. This provision states, ''this material is considered highly corrosive to steel.'' The phrase ''highly corrosive to steel'' is not defined by any specific criteria. Further, TP12, unlike other TP codes, is simply a statement and does not apply any regulatory requirement. It is unclear if all highly corrosive materials are assigned Special Provision TP12 or if this statement provides any useful guidance for selecting an appropriate portable tank. Therefore, we are deleting Special Provision TP12 from § 172.102(c)(8) ''*TP*'' *Codes*.

Section 172.202

Section 172.202 establishes the requirements for the description of hazardous materials on shipping papers. The UN Recommendations do not require the subsidiary hazard to be indicated on the shipping paper when a subsidiary hazard label is not required. We agree that the requirement to indicate the subsidiary hazard on the shipping paper should be consistent with the requirement to apply a subsidiary risk label. Therefore, in the NPRM, we proposed to harmonize with the UN Recommendations by making an appropriate revision to § 172.202(a)(3) to specify that the subsidiary hazard class or division number is not required to be entered when a corresponding subsidiary hazard label is not required.

One commenter [Omni] supports the proposal to amend § 172.202(a)(3) to specify that the subsidiary hazard class or division number is not required to be entered when the corresponding subsidiary hazard label is not required. Another commenter [Arkema] requests that we revise § 172.202(a)(3) to clarify that the subsidiary hazard must be entered on shipping papers corresponding to the additional subsidiary labeling required by § 172.402(a)(2), even though the subsidiary hazard is not indicated in Column (6) of the HMT in association with a hazardous material description. The commenter notes that ''* * * enforcement personnel take exception to the fact that we identify subsidiary hazards on the shipping papers for some of our materials when a named material does not list a subsidiary in the 172.101 table.''

We do not believe that a revision to § 172.202(a)(3) is necessary for clarification of the requirements as requested by Arkema. Paragraph (a)(3) of this section clearly states that the subsidiary hazard class(es) and division number(s) must be entered in parentheses immediately following the primary hazard class or division number regardless of whether the subsidiary hazard(s) is listed in Column (6) of the HMT. Therefore, in this final rule, we are adopting the revisions to § 172.202(a)(3) as proposed.

We are also revising paragraph (a)(4) to clarify that the packing group is not required to be indicated on a shipping paper for explosives, self-reactive substances, batteries other than those containing sodium, and organic peroxides in addition to entries that are not assigned a packing group. In addition, we also are revising paragraph (a)(6) to clarify that for all articles where ''No Limit'' is shown in Column (9A) or (9B) of the HMT, the quantity must be the gross mass, followed by the letter ''G.'' We received no comments opposing these proposals; therefore, in this final rule, we are revising paragraph (c) to include a similar exception.

Section 172.322

Section 172.322 specifies marking requirements for vessel transportation of each non-bulk packaging and bulk packaging that contains a marine pollutant. In this final rule, we are adopting the new marking for marine pollutants that has been incorporated into the IMDG Code.

We received one comment [DGAC] indicating a difference between our proposal and the UN Recommendations regarding types of packaging for which the marine pollutant marking is not required. DGAC notes, ''* * * [t]he proposal is to except combination packagings whereas the [UN Recommendations] excepts all packagings with a capacity of 5 L or 5 kg.''

We agree with DGAC that the exception applies to both single and combination packagings containing marine pollutants. Therefore, in this final rule, we are revising the

amendment to state that for packages containing marine pollutants, the marine pollutant mark is not required on single packagings or combinations packagings with a net capacity of 5 L or less for liquids or 5 kg or less for solids. We are requiring use of this new marking one year after publication of the final rule.

Section 172.400a

Section 172.400a establishes exceptions for labeling requirements. Currently, the UN Recommendations do not require a package labeled with a Division 4.2 label to bear a Division 4.1 subsidiary hazard label. This is primarily because the Division 4.2 label communicates a more severe spontaneously combustible flammability hazard and as such the Division 4.1 label is not considered to provide additional hazard communication value.

Section 172.401

Section 172.401 establishes specific requirements for prohibited labeling. We received a petition (P–1494) from DGAC requesting that PHMSA specify that pictograms described in the United Nations Globally Harmonized System of Classification and Labelling are not prohibited under the HMR. In its petition, DGAC states that the UN Economic and Social Council's Committee of Experts on the Transport of Dangerous Goods and on the GHS established the goal of implementing the GHS in 2008. DGAC contends that to facilitate international trade, it is important that packages bearing GHS pictograms are acceptable for transportation in the U.S. DGAC also states that GHS pictograms may already appear on packages used in transportation and cites Annex 7 of the GHS showing examples of GHS pictograms appearing on drums. Pictograms prescribed by GHS are not identical to labels required under the UN Recommendations or the HMR; such pictograms typically consist of a red bordered diamond with a hazard symbol such as a ''flame'' or a ''skull and cross bones.'' DGAC expects these GHS pictograms to be smaller in size than the transport labels required under the HMR and international regulations.

We received no comments on our proposal to permit use of the GHS pictograms. Therefore, in this final rule, we are amending § 172.401 which prohibits the transportation of packages bearing any mark or label that could be confused or conflict with a label required under the HMR, to specify that restrictions under this section do not apply to packages labeled in conformance with the GHS.

Section 172.446

Section 172.446 specifies the requirements for Class 9 labels. Unlike the HMR, the international regulations do not have a solid horizontal line dividing the lower and upper half of the Class 9 label. The Class 9 label in § 172.446 depicts a solid horizontal line. For consistency with international regulations and to provide relief to the regulated community, in this final rule, we are revising paragraph (b) to allow a solid horizontal line as an option.

Section 172.448

Section 172.448 establishes the specifications for the ''CARGO AIRCRAFT ONLY'' label. For consistency with international regulations, we are replacing the current label. The symbol of this label is not altered; however the text is revised to read, ''Forbidden in Passenger Aircraft.'' In addition, we are authorizing continued use of the current label until January 1, 2013.

Part 173

Section 173.4, 173.4a, 173.4b

Section 173.4 establishes the requirements for exceptions to the HMR for small quantities of Class 3, Division 4.1, Division 4.2 (PG II and III), Division 4.3 (PG II and III), Division 5.1, Division 5.2, Division 6.1, Class 7, Class 8, and Class 9 materials. Recently, provisions for the transport of hazardous materials in excepted quantities were incorporated into the UN Regulations and the IMDG Code. These provisions are based largely on existing excepted quantity provisions provided by the ICAO TI. The provisions permit certain small quantities of hazardous materials to be transported with minimal regulation, but ensure a high level of safety through stringent packaging and testing requirements.

The excepted quantity provisions in the UN Regulations and the small quantity provisions of the HMR are similar, but not identical. For example, differences include variations in the authorized hazard classes and packing groups; differences in the quantities authorized per package; and differences in marking, documentation and incident reporting requirements. We believe that aligning the existing small quantity provisions in the HMR with the excepted quantity provisions for air and vessel transportation will enhance harmonization and increase safety. Therefore, for consistency with the UN Recommendations and to increase safety and facilitate international transportation, we are adopting a new excepted quantity provision for transportation by aircraft and vessel into a new § 173.4a. We stress that we are not removing the existing small quantity provisions in 173.4, but rather limiting the use of these provisions to domestic highway and rail transportation. We also are moving the exception for small quantities—less than 1 gram for solids and less than 1 milliliter for liquids per inner packaging currently found in § 173.4(e)—to a new § 173.4b. This will align the requirements of the HMR with those of the ICAO TI and the IMDG Code for transport by air and vessel, while maintaining the existing small quantity exceptions for domestic highway and rail transport. However in this final rule we are not applying the full training requirements of Part 172 Subpart H to excepted quantities. Instead we are requiring that persons who offer or transport excepted quantities be familiar with the requirements of 173.4a. Small quantity exceptions are separated into the following three sections:

(1) Section 173.4 for small quantities transported by domestic highway and rail only;

(2) Section 173.4a for excepted quantities transported by aircraft and vessel; and

(3) Section 173.4b for *de minimis* quantities of material (less than 1 gram for solids and less than 1 milliliter for liquids per inner packaging) transported by all modes.

In the NPRM, we solicited comments regarding the potential for confusion and any cost impacts resulting from this change. One commenter [DGAC] indicates the proposed method is complex and unduly restrictive. DGAC notes, ''* * * that for the most part the excepted quantity requirements mirror the existing requirements in § 173.4(a)'' and ''* * * [f]urther, the proposal is disruptive to multimodal consistency with one set of requirements * * * applicable to land transport and the other applicable to air and sea transport.'' Additionally, DGAC indicates that the new § 173.4a is more restrictive that current § 173.4 and sees no safety basis for imposing these additional restrictions. DGAC recommends against incorporating the excepted quantities directly into the HMR but rather to allow domestic transport of excepted quantities under the ICAO TI or IMDG Code in accordance with authorizations provided in Subchapter C of Part 171 and recommends revising § 173.4(a)(10) by adding an alternative to allow transport of small quantities of

hazardous materials in accordance with excepted quantities provisions in the ICAO TI.

Another commenter [API] notes that Special Provision A59 continues to reference § 173.4 even though the section is no longer applicable to transport by aircraft. Special Provision A59 allows devices containing ethylene oxide to be transported by aircraft in accordance with packaging provisions in § 173.4. API recommends PHMSA revise the language in Special Provision A59 to reference new § 173.4a for excepted quantities which is applicable to air transport. API notes this would be consistent with ICAO TI Special Provision 131 which allows devices containing ethylene oxide to be transported in accordance with ''excepted quantities'' provisions. We agree. In this final rule, we are revising Special Provision A59 to reference the excepted quantities packaging requirements in § 173.4a. We are also making several additional conforming amendments to other provisions in the HMR to reflect the new § 173.4a. The sections we are revising are as follows:

—§ 172.102, Special Provisions 136, A59, A60;
—§ 172.402(d)(1);
—§ 172.500(b)(5);
—§ 173.24(c)(2); and
—§ 175.700(a).

Finally, UPS is concerned that the one-year transition period prior to prohibiting the air transport of packages of small quantities in conformance with § 173.4 is insufficient. UPS indicates, ''* * * This will be a very hard transition for air carriers to enforce, as the current package marking for a Small Quantity shipment * * * does not stand out, and therefore cannot easily be identified and rejected by package handlers.'' UPS adds that it anticipates shippers will continue to transport small quantities domestically by air according to current § 173.4 beyond the transition date after which shippers would be required to conform with § 173.4a. UPS recommends that PHMSA allow the air transport of small quantities in conformance with § 173.4 for a period of several years to allow for transport of packages filled prior to the January 1, 2009 effective date until they are used up. We disagree. The current provisions of § 173.4 require a marking certifying conformance with the section. This certification requirement signifies knowledge of the requirements of the section even though training is not prescribed. We expect shippers benefiting from the exceptions provided in § 173.4 to take steps to ensure awareness of any changes that may be made to the requirements of the section and to respond accordingly, just as we would expect air carriers to be diligent in their acceptance practices with regard to small quantities prepared under § 173.4 even though training is not required. We believe a one-year transition period is sufficient for air shippers and air carriers to make necessary changes and conform to the revised requirements of § 173.4. Therefore, in this final rule, we are not revising the transition date for small quantities transported in accordance § 173.4. However, we are revising the certification marking in § 173.4(a)(10) to communicate that the packages prepared in conformance with the section may only be transported domestically by highway or rail. Also, to further clarify, where domestic transport by highway or rail is impractical, materials must be transported in conformance with the requirements for excepted quantities in § 173.4a.

Two commenters [DGAC, FCC] express disappointment that we did not include fuel cell cartridges as part of the small quantity exceptions in § 173.4. FCC notes, ''* * * We see no safety basis for precluding use of the small quantity exception provision for fuel cells * * *'' Both DGAC and FCC recommend not adopting this amendment. While we considered extending the allowance for fuel cell cartridges to the excepted quantity provisions this would create a confusing inconsistency with the ICAO TI. Fuel cell cartridges by design offer a high degree of integrity and may contain a relatively small amount of hazardous material. Therefore, we believe the relative hazard associated with surface transportation of these materials is minimal. In this final rule we will permit fuel cell cartridges to be transported by highway or rail in accordance with the small quantity exceptions in § 173.4.

One commenter [UPS] notes a concern that packages of materials shipped as de minimus quantities could be misunderstood as undeclared shipments by carriers processing damaged or stray packages. UPS recommends that PHMSA require a marking on the package to certify conformance with the de minimus exceptions section. We disagree. Based on our determination that de minimus materials do not pose an unreasonable risk to health and safety or property, we do not believe a hazard communication marking is necessary. Therefore, in this final rule, we are adopting the new § 173.4b as proposed.

Sections 173.12 and 173.134

Section 173.12 establishes exceptions for shipments of waste materials. Section 173.134 establishes definitions, classification criteria, and exceptions for Division 6.2 materials (infectious substances). Under the Docket HM–218D final rule, we added a new paragraph (f) in § 173.12 to specify that household waste, as defined in § 171.8, is not subject to the HMR. In addition, we revised a household waste exception in § 173.134(b)(13)(i) to reference the household waste definition in § 171.8. Upon publication of the final rule, we received a comment expressing concern with the implementation of these amendments. One commenter [Regulatory Resources Inc.] expresses concern that this amendment was too broad and would allow entities such as large hotels undergoing renovation to offer their waste, including hazardous materials, for transportation as non-regulated materials. This was not our intention. In an effort to reduce confusion, we are revising these two sections to specify that household waste is not subject to the HMR when transported in accordance with applicable state, local, or tribal requirements.

Section 173.24b

Section 173.24b establishes additional general requirements for bulk packagings. In this final rule, we are adding a new paragraph to clarify that IBCs and Large Packagings that are not designed and tested for stacking may not be stacked during transportation. In addition, we are clarifying that IBCs and Large Packagings that are intended for stacking may not have more weight superimposed upon them than is marked on the packaging.

Section 173.62

Section 173.62 establishes specific packaging requirements for explosives. We received a petition (P–1505) from the Sporting Arms & Ammunition Manufacturers' Institute (SAAMI) requesting that PHMSA include a new proper shipping name ''Powder, smokeless,'' UN0509, in the § 172.101 HMT and add the new entry to the explosives assigned Packaging Instruction 114(b) in § 173.62. In its petition, SAAMI states that the UN Sub-Committee of Experts (UNSCOE) on the Transport of Dangerous Goods adopted a proposal by SAAMI to add the new entry to its Dangerous Goods List and a related change to the packing provisions in the UN Recommendations.

Typically, we harmonize with the UN following the formal adoption of a

proposal into the published version of the UN Recommendations. However, because of the limited scope of this amendment and because the new entry allows for a more accurate classification of smokeless powder, we are amending § 173.62 to include a new entry UN0509 to the Explosives Table, which specifies the Packing Instruction assigned to each explosive, and adding a reference to the new entry in Packing Instruction 114(b). We also are including a ''D'' in column 1 of the table entry to designate that the entry is appropriate for domestic use but may not be appropriate for international transportation. Following the adoption of the entry within the IMDG Code and the ICAO TI, this indication would no longer be necessary. It is our intention to remove the ''D'' in a future rulemaking consistent with the adoption of the entry within the aforementioned international regulations.

Additionally, consistent with our addition to add new entry 1-Hydroxybenzotriazole, anhydrous, dry or wetted with less than 20% water, by mass,'' Division 1.3C, UN0508, to the HMT, we are adding this material under Packing instruction ''114(b).'' We are revising this instruction to specify that, for UN0508, inner packagings are not required if drums are used as the outer packaging. We also are adding a new sentence under Packing instruction 114(b) to prohibit metal packagings for UN0508. In addition, we are clarifying that inner packagings are not necessary if drums are used as the outer packaging for UN0160 and UN0161.

Section 173.115

The HMR define a Division 2.2 material (non-flammable, nonpoisonous compressed gas—including compressed gas, liquefied gas, pressurized cryogenic gas, compressed gas in solution, asphyxiant gas and oxidizing gas) as any material or mixture that ''exerts in the packaging an absolute pressure of 280 kPa (40.6 psia) or greater at 20° (68 °F), or is a cryogenic liquid, and does not meet the definition of Division 2.1 or 2.3.'' Recently, the definition of Division 2.2 gases in the UN Recommendations was amended to include all liquefied gases, irrespective of their pressure. This amendment was made on the basis that certain liquefied gases that pose no pressure hazard at ambient pressures and temperatures may exhibit a pressure hazard under conditions normally encountered in transport, such as increased temperature. In addition, the pressure of a Division 2.2 gas was amended to be 200 kPa gauge (29 psig). In order to enhance safety and to maintain global uniformity with respect to the classification of Division 2.2 gases, we are adopting these amendments. With respect to the revised pressure limit, for the convenience of the reader the pressure is now expressed as both gauge pressure and absolute pressure. In order to enhance safety and to maintain global uniformity with respect to the classification of Division 2.2 gases, we are adopting these amendments. Additionally, we are re-designating current paragraph (k) as a new paragraph (l). The new paragraph (k) would read ''For Division 2.2 gases, the oxidizing ability shall be determined by tests or by calculation in accordance with ISO 10156:1996 and ISO 10156–2:2005 (IBR, see § 171.7 of this subchapter.)'' This revision requires the use of specific test and calculation methods for a more accurate determination of the oxidizing ability of Division 2.2 gases. Additionally, we are revising § 171.7 to incorporate these ISO standards.

Section 173.137

Section 173.137 establishes packing group criteria for corrosive (Class 8) materials. In this final rule, we are adding a note to clarify that an additional test on the second material is not required when the initial test on either steel or aluminum indicates the material is corrosive.

Sections 173.162, 173.164, 173.166, 173.186, 173.306, and 173.307

The ICAO TI recently adopted new amendments to require additional information to be included on the air waybill for certain hazardous materials. Currently, a number of hazardous materials are excepted from the full regime of the hazard communication requirements that generally apply to the transport of hazardous materials in the ICAO TI when certain conditions are met to ensure an appropriate level of safety. An example is articles containing not more than 100 mg of mercury, gallium or an inert gas, which are excepted if certain conditions specified in Special Provision A69 of the ICAO TI are met. Frequently, the ICAO TI contain more restrictive or additional requirements and conditions that apply for air transportation. The special provisions that address these requirements contain packaging provisions, prohibitions, and exceptions from requirements for particular quantities or forms of materials. To enable air carriers to ascertain that a shipment conforms to applicable requirements, in the July NPRM, we proposed to adopt a number of amendments consistent with recently adopted amendments in the ICAO TI. Specifically we proposed to require the shipper to include on the air waybill accompanying a shipment an indication that a hazardous material or article has met the applicable conditions for transport. We stated that this indication would allow freight forwarders and operators to verify that the shipper is aware of, and has complied with, the applicable regulatory requirements. Additionally, we stated that it would reduce the likelihood of unnecessary carrier delays through improved communication.

As discussed earlier in this preamble, a number of commenters oppose this proposal. For example, commenters oppose the certification provisions because the HMR do not specifically require an air waybill and express concern that the proposed certification requirement means that all air shipments must now be accompanied by a waybill. Commenters also note that use of an air waybill is not standard across the air carrier industry, and that the industry is moving towards a paperless system for shipments. In addition, commenters state that in many cases the carrier or the freight forwarder prepares the air waybill; these commenters thus disagree with PHMSA's premise that including certification on an air waybill allows a carrier or freight forwarder to verify that the shipper has complied with applicable requirements. Commenters also suggest that we significantly under-estimated the paperwork burden that would result from implementation of the proposed certification requirement.

Based on our review of comments and on past history of safe transportation of these excepted materials, in this final rule, we are not adopting the requirement as proposed. We will continue to review the merits of the proposal and may reconsider the proposed amendments or a similar revised amendment for a future rulemaking.

Section 173.168

Section 173.168 establishes the requirements for the transportation of chemical oxygen generators. A chemical oxygen generator that is transported with a means of initiation attached must be approved prior to shipment. This approval requirement applies to chemical oxygen generators with either an explosive or non-explosive means of initiation attached. As currently drafted, it appears that the requirement to obtain an approval applies only to oxygen generators with an explosive means of initiation. In this final rule, we are revising paragraph (a) to clarify the

approval requirements for a chemical oxygen generator.

Section 173.196

Section 173.196 establishes packaging requirements for Category A infectious substances. In this final rule, we are revising paragraphs (a)(1) and (a)(2) by replacing the word ''watertight'' with ''leakproof.'' These proposed revisions are consistent with international regulations. No substantive changes to the packaging requirements are intended by this wording change.

Section 173.206

In this final rule, we are adding a new packaging section (§ 173.206) to the HMR to harmonize with new packaging requirements for water-reactive chlorosilanes adopted in the Fifteenth revised edition of the UN Recommendations. The enhanced packaging requirements more adequately address the water-reactive properties of these materials. We are also evaluating whether packaging for other water-reactive materials should also be enhanced. Depending on the outcome of our evaluation, we may propose further amendments to the UN Recommendations and the HMR. In the meantime, the entries affected by the addition of new packaging § 173.206 are as follows:

UN1724 Allyltrichlorosilane, stabilized
UN1728 Amyltrichorosilane
UN1747 Butyltrichlorosilane
UN1753 Chlorophenyltrichlorosilane
UN2986 Chlorosilanes, corrosive, flammable, n.o.s.
UN2987 Chlorosilanes, corrosive, n.o.s.
UN2985 Chlorosilanes, flammable, corrosive, n.o.s.
UN3362 Chlorosilanes, toxic, corrosive, flammable, n.o.s.
UN3361 Chlorosilanes, toxic, corrosive, n.o.s.
UN1762 Cyclohexenyltrichlorosilane
UN1763 Cyclohexyltrichlorosilane
UN2434 Dibenzyldichlorosilane
UN1766 Dichlorophenyltrichlorosilane
UN1767 Diethyldichlorosilane
UN1162 Dimethyldichlorosilane
UN1769 Diphenyldichlorosilane
UN1771 Dodecyltrichlorosilane
UN2435 Ethylphenyldichlorosilane
UN1196 Ethyltrichlorosilane
UN1781 Hexadecyltrichlorosilane
UN1784 Hexyltrichlorosilane
UN2437 Methylphenyldichlorosilane
UN1250 Methyltrichlorosilane
UN1799 Nonyltrichlorosilane
UN1800 Octadecyltrichlorosilane
UN1801 Octyltrichlorosilane
UN1804 Phenyltrichlorosilane
UN1816 Propyltrichlorosilane
UN1298 Trimethylchlorosilane
UN1305 Vinyltrichlorosilane, stabilized

Section 173.222

Section 173.222 specifies the requirements for dangerous goods in machinery or apparatus. Paragraph (c) of this section specifies the total net quantity limits contained in one item of machinery or apparatus. Consistent with the ICAO TI, we are revising this section to prohibit Division 2.2 gases with subsidiary risks and refrigerated liquefied gases for transportation by aircraft as dangerous goods in machinery or apparatus.

Section 173.225

Section 173.225 specifies packaging requirements and other provisions for organic peroxides. When the § 172.101 table specifies this section, the organic peroxide must be packaged and offered for transportation in accordance with the provisions of this section. Each packaging must also conform to the general requirements of Subpart B of Part 173 and to the applicable requirements of Part 178 of the HMR. Specifically, organic peroxides that require temperature control are subject to § 173.21(f). When an IBC or bulk packaging is authorized and meets the requirements of paragraph (f) or (h) of § 173.225, respectively, lower control temperatures than those specified for non-bulk packaging may be required. An organic peroxide not identified in paragraph (c), (e), or (g) of § 173.225 by technical name, or not assigned to a generic type in accordance with paragraph (b)(3) of this section, must conform to the requirements in paragraph (c) of § 173.128.

The Organic Peroxides Table specifies by technical name those organic peroxides that are authorized for transportation and not subject to the approval provisions of § 173.128. An organic peroxide identified by technical name is authorized for transportation only if it conforms to all applicable provisions of the table. In this final rule, we are amending the Organic Peroxides Tables by adding new entries, revising current entries, and adding new Notes ''29,'' ''30,'' and ''31'' following the Organic Peroxides Table. New Note ''29'' indicates that specific entries are not subject to the requirements of this subchapter for Division 5.2. New Notes ''30'' and ''31'' indicate that for specific entries, organic peroxides with a boiling point greater than 130 °C (266 °F) or available oxygen less than or equal to 6.7% are acceptable. We are also adding new entries to the Organic Peroxide IBC Table in paragraph (e) of this section.

The following entries in the Organic Peroxides Table are being amended:

UN3101 tert-Amyl peroxy-3,5,5-trimethylhexanoate
UN3117 Di-(2-ethylhexyl) peroxydicarbonate [as a stable dispersion in water]

The following entries are added to the Organic Peroxides Table:

UN3119 tert-Amyl peroxyneodecanoate
UN3119 tert-Amyl peroxypivalate
UN3106 tert-Butyl peroxy 3,5,5-trimethlyhexanoate
UN3115 Cumyl peroxyneodecanoate
Exempt Cyclohexanone peroxide(s)
UN3105 2,2-Di-(tert-amylperoxy)-butane
Exempt Dibenzoyl peroxide
UN3109 tert-Butyl peroxybenzoate
UN3103 1,1-Di-(tert-butylperoxy)-cyclohexane
UN3109 1,1-Di-(tert-butylperoxy)-cyclohexane
UN3105 1,1-Di-(tert-butylperoxy)-cyclohexane + tert-butylperoxy-2-ethylhexanoate
Exempt Di-(2-tert-butylperoxyisopropyl) benzene(s)
UN3103 1,1-Di-(tert-butylperoxy)-3,3,5-trimethylcyclohexane
UN3118 Di-2,4-dichlorobenzoyl peroxide
Exempt Di-4-chlorobenzoyl peroxide
Exempt Dicumyl peroxide
UN3119 Di-(2-ethylhexyl) peroxydicarbonate [as a stable dispersion in water]
UN3119 Di-(2-neodecanoyl-peroxyisopropyl) benzene, as stable dispersion in water
UN3115 3-Hydroxy-1,1-dimethylbutyl peroxyneodecanoate
UN3117 3-Hydroxy-1,1-dimethylbutyl peroxyneodecanoate
UN3119 3-Hydroxy-1,1-dimethylbutyl peroxyneodecanoate [as a stable dispersion in water]
UN3109 Methyl isopropyl ketone peroxide(s)
UN3107 3,3,5,7,7-Pentamethyl-1,2,4-trioxepane

A new Note ''30'' is added following the Organic Peroxides Table to read: ''Diluent type B with boiling point > 130 °C (266 °F).''

A new ''Note ''31'' is added following the Organic Peroxides Table to read: ''Active oxygen ≤ 6.7%.''

The following entries are being revised or added to the Organic Peroxide IBC Table as follows:

UN3109 tert-Butyl peroxybenzoate, not more than 32% in diluent type A
UN3109 1,1-Di-(tert-butylperoxy)-cyclohexane, not more than 37% in diluent type A

UN3119 tert-Amyl peroxypivalate, not more than 32% in diluent type A
UN3119 tert-Butyl peroxyneodecanoate, not more than 52%, stable dispersion, in water
UN3119 Di-(2-neodecanoylperoxyisopropyl) benzene, not more than 42%, stable dispersion, in water
UN3119 3-Hydroxy-1,1-dimethylbutyl peroxy-neodecanoate, not more than 52%, stable dispersion, in water

In addition, in the Organic Peroxide Portable Tank Table, UN3119 ''Di-(3,5,5-trimethyl-hexanoyl) peroxide, not more than 38% in diluent type A'' is being revised, and UN3119 ''tert-Amyl peroxyneodecanoate, not more than 47% in diluent type A'' is being added as a new entry.

Section 173.226

Section 173.226 establishes non-bulk packaging requirements for Division 6.1 PG I, Hazard Zone A materials. In this final rule, we are editorially revising paragraph (c) to enhance accuracy, reduce misunderstanding, and provide a more user-friendly format.

Section 173.230

Currently § 173.230 provides regulations for the transportation of fuel cell cartridges containing flammable liquids. As portable electronic devices continue to evolve, developers of fuel cell cartridge technologies are considering various types of fuel sources to meet increasing power demands. Provisions addressing these other fuel types have already been adopted in the Fifteenth revised edition of the UN Recommendations, the ICAO Technical Instructions and the IMDG Code. Additionally, we received petitions from HMT, L.L.C. (P–1517) and the U.S. Fuel Cell Council (P–1518) requesting that we align the HMR provisions for fuel cell systems and cartridges with international standards. Consistent with several of PHMSA's strategic goals of ensuring safety and advancing technology solutions to support energy independence and environmental protection, we are adding four new proper shipping names to the HMT to describe the range of fuel used in fuel cell cartridges: ''Water-reactive substances,'' UN3476; ''Corrosive substances,'' UN3477; ''Liquefied flammable gas,'' UN3478; and ''Hydrogen in metal hydride,'' UN3479. These additions will provide guidance for the safe transportation of fuel cells and will introduce a greater variety of technology into the global marketplace.

The type of hazard would not be included in the proper shipping name but, instead, would be identified by the hazard class or division (*e.g.*, 2.1; 3; etc.). Readers should note that liquefied flammable gases and hydrogen in a metal hydride are both Division 2.1 materials used in fuel cell cartridges. However, the provisions necessary for the safe transportation of these articles are quite different and therefore, it is necessary to distinguish them with separate shipping descriptions. In addition, because fuel cell cartridges may contain hazardous materials of different hazard classes, we are revising § 173.230 to provide a comprehensive section to address the requirements for all fuel cell cartridges containing hazardous materials as fuel. In addition, consistent with the ICAO Technical Instructions, in § 175.10, we are expanding the types of fuel cell cartridges permitted in carry-on baggage by airline passengers and crew members to include water-reactive substances and hydrogen in a metal hydride. Fuel cell cartridges permitted for transport by passengers and crew members must continue to conform to certain rigorous performance criteria outlined in § 175.10.

One commenter [HMT] requests that we adopt the definition of fuel cell cartridge or fuel cartridge provided in the Fifteenth edition of the UN Model Regulations. The commenter notes that the current definition for fuel cell cartridge or fuel cartridge adopted in a separate final rule (Docket No. HM–243; 73 FR 23362; April 30, 2008) does not align with the definition provided in the UN Model Regulations. The commenter further states that the definition currently provided in § 171.8 would limit fuel cells to those for micro power units and would prohibit fuel cells from being refilled by the user. The commenter states that most hydrogen in metal hydride fuel cell cartridges are intended to be filled by the user and fuel cell cartridges intended for military and industrial applications would be excluded from the current definition of fuel cell cartridge or fuel cartridge.

We agree with the commenter. The definition in the Fifteenth edition of the UN Recommendations provides an adequate definition of fuel cell cartridges and addresses the various applications of this technology. Therefore, in this final rule we are revising the definition in § 171.8 for fuel cell cartridge or fuel cartridge consistent with the definition provided in the Fifteenth edition of the UN Recommendations.

Two commenters [HMT, FCC] request that we remove the phrase ''be free of electric charge generating components'' from the last sentence of paragraph (a). The commenters correctly note this phrase was removed from the Fifteenth edition of the UN Recommendations when provisions for fuel cell cartridges were expanded to fuels other than flammable liquids. HMT suggests the meaning of the requirement is unclear and appears to have little relevance to fuel cell cartridges containing non-flammable fuels. We agree with the commenters. The regulations pertaining to fuel cell cartridges should be clear, enforceable and consistent with international standards to the extent possible. Therefore, in this final rule we are removing the phrase ''be free of electric charge generating components'' from paragraph (a).

Paragraph (d) outlines additional requirements and tests for fuel cell cartridges containing hydrogen in a metal hydride. HMT suggests several editorial revisions to the proposed language in paragraph (d) for consistency with the Fifteenth edition of the UN Recommendations. We agree; these are minor revisions and will provide greater clarity to the regulations. Specifically, in this final rule we are clearly distinguishing between design qualification tests and production tests and correcting various figures and units of measure.

Paragraph (e) describes the various package configurations authorized for the transport of fuel cell cartridges. One commenter [FCC] suggests several revisions to this paragraph for consistency with the UN Recommendations and the ICAO Technical Instructions. We agree with the commenter and in this final rule we are revising paragraph (e)(2) to be consistent with the UN Recommendations and the ICAO Technical Instructions.

Paragraph (f) outlines additional requirements for the transportation of fuel cell cartridges by aircraft. HMT and FCC note that the proposed paragraph (f)(3) is inconsistent with the ICAO Technical Instructions and request we clarify our intent to only require fuel cell cartridges and fuel cell systems to comply with IEC PAS 62282–6–1 Ed. 1 when contained in equipment. We agree with the commenters and are revising this paragraph consistent with the 2009–2010 edition of the ICAO Technical Instructions.

Paragraphs (f)(4) and (f)(5) apply to fuel cells cartridges packed with equipment. One commenter, [HMT] requests we combine paragraphs (f)(4) and (f)(5) for clarity since both paragraphs apply to fuel cells cartridges packed with equipment. While we agree with the commenter, we do not see a reason to restate requirements in

paragraph (f)(4) that are already stated in paragraph (e)(2)(i). In this final rule we are deleting the proposed paragraph (f)(4) and the proposed (f)(5) is now (f)(4). In addition, we are reordering the remaining paragraphs appropriately.

The ICAO Technical Instructions contain additional provisions applicable to fuel cell cartridges containing Division 4.3 and Class 8 material. This provision restricts the mass of each fuel cell cartridge to 1.0 kg (2.2 lbs.) Although this requirement was not proposed, it is our intention to harmonize to the extent possible with the ICAO Technical Instructions. Therefore, in this final rule, we are adding this requirement to paragraph (f)(7) of this section.

Paragraph (f)(8) states fuel cell cartridges intended for transport in carry-on baggage must also meet the applicable provisions of § 175.10. HMT requests that we revise paragraph (f)(8) to specify only the requirements of paragraphs (a) through (d) apply in this case since the additional requirements of paragraphs (e) and (f) would preclude a passenger from using a fuel cell while on board an aircraft. We agree with the commenter. The provisions outlined in this section and § 175.10 are intended to permit passengers to safely carry on and use fuel cell cartridges consistent with their intended use onboard aircraft. In this final, rule we are revising paragraph (f)(8) to specify fuel cell cartridges carried by aircraft passengers or crewmembers are subject to paragraphs (a) through (d) of this section and the applicable provisions of § 175.10.

Paragraph (g) provides limited quantity exceptions for fuel cell cartridges. In the NPRM, we proposed to limit the amount of fuel permitted in the fuel cell cartridge by limiting the capacity of the reservoir in the fuel cell cartridge. This is consistent with other limited quantity exceptions outlined in §§ 173.150 through 173.154 that limit the size of inner packagings. HMT notes that the UN Model Regulations specify an authorized quantity limitation based on the maximum quantity of fuel per cartridge. The commenter requests we revise the limited quantity exceptions in this paragraph to minimize the amount of hazardous materials contained in the cartridge consistent with the UN Recommendations. Although this change would permit slightly more hazardous material in a fuel cell cartridge for fuel cell cartridges containing a Class 3, Division 4.3 or Class 8 material, we believe the additional risk associated with this change would be negligible, considering the robust nature of fuel cell cartridges and the design type and production testing that must be conducted prior to offering fuel cell cartridges for transportation. We agree with the commenter, and in this final rule, we are revising paragraphs (g)(1), (2) and (3) to express the quantity limitations based on the quantity of liquid or solid fuel contained in the article.

Section 173.304(b)

Section 173.304(b) specifies additional requirements for liquefied compressed gases in UN pressure receptacles. In a final rule published on June 12, 2006, under Docket PHMSA–2005–17463 (HM–220E) entitled ''UN Cylinders,'' (71 FR 33858), we adopted the filling limits for liquefied compressed gases and mixtures in UN pressure receptacles specified in the UN Recommendations. Based on a review of the P200 filling limits, we lowered the filling limits for ten gases and added a table under paragraph (c) in § 173.304b to specify the revised filling limits. The UN Recommendations subsequently adopted these revised filling limits. Since there is no longer a need for the revised filling limits for liquefied compressed gases in the HMR, in this final rule, we are removing paragraph (c) of § 173.304b in its entirety. Current paragraphs (d) and (e) are being re-designated accordingly.

Section 173.306

Section 173.306 establishes transportation requirements for limited quantities of compressed gases. The ICAO TI have incorporated provisions for the transportation of limited quantities of compressed gases in inner nonrefillable plastic receptacles to keep abreast with new technology and on the basis that inner nonrefillable plastic receptacles provide a level of safety equivalent to other authorized packagings. Although the HMR do not currently allow the transportation of these plastic receptacles by air, PHMSA has issued several Special Permits authorizing such transportation with certain restrictions, such as shipping paper, labeling, marking, and packaging requirements. We have reviewed these materials from a risk/safety perspective, and based on an equivalent level of safety determination established by the Special Permits, and a record of the safe transportation of plastic receptacles, we are adopting requirements for the construction and use of plastic containers within the HMR. We believe this amendment will also enhance international harmonization and provide relief to the regulated community by reducing the need for Special Permits to transport these materials. A new aerosol container specification ''2S'' is included in § 173.306, with corresponding requirements as detailed in a new § 178.33b. One commenter [P&G] expresses support for the allowance of limited quantities of Division 2.2 materials with no subsidiary hazard to be transported in plastic containers and also provides recommendations for the testing and material requirements of these packagings [See discussion under § 178.33b]. The same commenter [P&G] suggests alternatives to the hot water bath tests for leak detection for both plastic and metal aerosol containers. Specifically, the commenter requests that we modify the hot water bath test protocol to permit a reduction in temperature if the receptacles are made of a plastic material that softens at higher temperatures. As noted in the NPRM, we proposed to add § 173.306(a)(5) to allow an alternative hot water bath test for aerosol dispensers made of plastic materials which soften at higher temperatures. We received no additional comments opposing this proposal; therefore, in this final rule, we are adopting this proposal without change.

We are also revising paragraph (j) to require the consignor to include on an air waybill or other shipping documentation an indication that a hazardous material or article has met the applicable conditions for air transport. This indication will allow freight forwarders and operators to verify that the consignor is aware of, and has complied with, the applicable regulatory requirements.

Section 173.307

Section 173.307 specifies exceptions for compressed gases. The ICAO TI have Special Provision (A69) excepting from regulation articles containing minimal amounts of gallium, mercury, or inert gas. Based on a review that indicated the special provision was not assigned appropriately among all inert gases, ICAO proposed to assign the special provision to all the inert gases concerned. The HMR do not currently have a similar provision for inert gases, although the HMR have the same exception for articles containing gallium or mercury in §§ 173.162 and 173.164, respectively. Rather than adding a new special provision, we are adding to this section a general exception for articles containing inert gas. This exception specifies that manufactured articles or apparatuses, each containing not more than 100 mg of inert gas and packaged so that the quantity of inert gas per package does not exceed 1 g, are not subject to the HMR.

Section 173.322

Section 173.322 establishes specific packaging requirements for ethyl chloride (UN1037). Recently, PHMSA became aware of an incident involving an aluminum compressed gas cylinder containing ethyl chloride. The investigation of this incident suggests the possibility that a reaction occurred within the aluminum cylinder as a result of the incompatibility between the ethyl chloride gas and the aluminum cylinder. The HMR currently prohibit the transportation of ethyl chloride in UN pressure receptacles constructed of aluminum alloy but have no such prohibition for specification cylinders. To address this occurrence, in this final rule, we are revising this section to prohibit the filling of specification cylinders made of aluminum alloy (*e.g.*, DOT 3AL) with ethyl chloride.

Part 175

Section 175.10

Section 175.10 establishes exceptions for the transportation of certain hazardous materials by aircraft, including hazardous materials that may be carried by passengers or crewmembers in checked or carry-on baggage. In this final rule, we are revising the exception for dry ice in paragraph (a)(10) to clarify that dry ice carried in both carry-on and checked baggage is subject to the approval of the aircraft operator.

We are also revising § 175.10(a)(15) to clarify that when the battery is disconnected, the battery terminals must also be protected to prevent short circuits. (See discussion under ''Amendments to Enhance the Safe Transportation of Batteries and Battery-Powered Devices'' of this rulemaking.) In response to the proposals in the NPRM pertaining to this section, one commenter [URS] points out a discrepancy in terminology in reference to exceptions for passengers, crewmembers, and air operators under § 175.10. URS notes that under § 175.10(a)(17), PHMSA uses the terminology ''consumer electronic'' to describe devices powered by lithium batteries carried on board an aircraft, whereas under revised § 175.10(a)(18), PHMSA use the terminology ''portable electronic'' to describe the same types of devices but powered by fuel cell cartridges and carried on board an aircraft. The commenter requests PHMSA replace ''consumer electronic and medical'' with ''portable'' for consistency between the two exceptions. We agree, and in this final rule, we are revising § 175.10(a)(17) to indicate ''portable electronic devices.''

As noted under the discussion in § 173.230, we are revising paragraph (a)(18) to expand the types of fuel cell cartridges permitted in carry-on baggage by airline passengers and crew. Fuel cell cartridges permitted for transport by passengers and crewmembers must continue to conform to the rigorous performance criteria outlined in § 175.10.

Finally, we are revising paragraph (a) and adding a new paragraph (c) to specify that the requirements to submit incident reports under §§ 171.15 and 171.16 of this subchapter apply to the air carrier.

Section 175.33

Section 175.33 establishes requirements for shipping papers and notification of pilot-in-command for hazardous materials transported by aircraft. We are adopting several amendments to strengthen and clarify these requirements, harmonize with international standards, and address a recommendation of the NTSB from a 2006 incident.

On February 7, 2006, United Parcel Service Company (UPS) flight 1307, landed at its destination, Philadelphia International Airport, after a cargo smoke indication in the cockpit. The crewmembers evacuated the aircraft upon landing and sustained minor injuries. The aircraft and most of the cargo, however, were destroyed. In its investigation of the incident, the NTSB determined that UPS personnel were able to retrieve the notice to captain (NOTOC), which contained information on the hazardous materials on board the airplane. However, NTSB also determined that personnel did not provide emergency responders with detailed information about the hazardous materials on board the aircraft in a timely manner, and such a delay could have potentially created a safety hazard. As a result of its findings, NTSB recommended that PHMSA ''require aircraft operators that transport hazardous materials to immediately provide consolidated and specific information about hazardous materials on board an aircraft, including proper shipping name, hazard class, quantity, number of packages, and location to on-scene emergency responders upon notification of an accident or incident.'' (NTSB Recommendation A–07–106)

The HMR currently require aircraft operators to make available, upon request, to an authorized official of a Federal, State, or local government agency, including an emergency responder, at reasonable times and locations, the documents or information required by § 175.33, which include shipping papers and notification of pilot-in-command. However, aircraft operators are not required to provide hazardous materials information to emergency responders immediately upon notification of an accident or incident. We agree with NTSB that delays in the transmittal of information to emergency responders could delay timely and effective response to incidents. Therefore, in the NPRM, we proposed to revise paragraph (c)(4) of this section to require aircraft operators that transport hazardous materials to provide immediate and specific information about hazardous materials on board an aircraft, including proper shipping name, hazard class, quantity, number of packages, and location, to on-scene emergency responders in the event of an accident or incident.

One commenter [ALPA] does not support the proposal to require aircraft operators that transport hazardous materials to provide immediate and specific information about hazardous materials on board an aircraft, including proper shipping name, hazard class, quantity, number of packages, and location, to on-scene emergency responders in the event of an accident or incident. ALPA states, ''* * * we are concerned that the proposed wording in the current rulemaking effort is not specific enough in how the information is to be provided to first response personnel, or in what is considered immediate notification.'' ALPA expresses concern that operators will task a flight crew with providing the information on the NOTOC to emergency responders during an incident when the flight crew's focus should be on safely evacuating an aircraft. ALPA recommends that PHMSA require operators to find a method of providing the required information to emergency responders without involving the flight crew.

We acknowledge ALPA's concern with involvement of the flight crew and as indicated previously in the preamble to Docket HM–206C, in an emergency situation, retrieval of the information from the flight crew may not be practical during an in-flight emergency because the flight crew may be attending to more pressing tasks. However, we believe the method for providing immediate notification to emergency responders is best determined by the operators. Therefore, in this final rule, we are adopting the revision as proposed.

In response to a FedEx petition, [P–1490], in the NPRM, we also proposed to revise § 175.33(a)(1)(i) to remove the requirement that the type of package must be included on the notification of

pilot-in-command. Three commenters [FedEx, IPA, UPS] indicate support for our proposal to remove the requirement to include the type of packaging on the notification of pilot-in-command. One commenter [IPA] requests that PHMSA require special notice to the flight crew through the notification of pilot-in-command any time cargo aircraft only hazardous material is loaded in an inaccessible location. We disagree. The notification of pilot-in-command requirements already require information on the loading location of packages aboard aircraft and confirmation that the package must be carried only on cargo aircraft if its transportation aboard passenger-carrying aircraft is forbidden, in § 175.75(a)(4) and (a)(9), respectively. We did not receive other comments opposing this proposal; therefore, in this final rule, we are removing the requirement as proposed.

In addition, for consistency with international regulations, in the NPRM, we proposed to add a new paragraph (a)(11) to specify that for ''Carbon dioxide, solid (dry ice),'' UN1845, only the UN number, proper shipping name, class, total quantity, exact location aboard the aircraft, and the airport at which the package(s) is to be unloaded need be provided.

Two commenters [Omni, UPS] express concern regarding the language provided in new paragraph (a)(11). Specifically, Omni, notes that ''* * * In the proposed language to be added relative to UN1845 * * * the aircraft operator is required to provide the exact location aboard the aircraft.'' Omni requests clarification of the meaning of ''exact location'' because the language is not the same for the requirement to inform the pilot-in-command of the location of the packages aboard aircraft required for other hazardous materials, and urges PHMSA to remove the word ''exact'' from the requirement. UPS points out an inconsistency with the ICAO TI by indicating, ''* * * ICAO has determined to allow the dry ice information to be aggregated for each hold in an aircraft, not just the loading position.'' UPS recommends that PHMSA revise the language to be consistent with ICAO TI. The ICAO TI requires the ''total quantity in each hold on the aircraft.'' This is different in meaning from the ''exact location'' as written in the NPRM in that, as UPS points out, an aircraft hold encompasses several loading locations.

We agree with the commenters, the use of the word ''exact'' is inconsistent with the provision to provide the location of packages under § 175.33(a)(4) and the provision for ''dry ice'' added to the ICAO TI. Therefore, we are revising the language by removing the word ''exact'' from paragraph (a)(11).

Another commenter [COSTHA] requests that we clarify paragraph (a)(11) to indicate the provision applies only when notification of pilot-in-command is required because not all shipments of ''dry ice'' are subject to the notification of pilot-in-command requirements (see § 172.217(c)(5)). We agree with the commenter that not all shipments of ''dry ice'' require notification, but we disagree that a clarifier is needed for new paragraph (a)(11). The paragraph (a) introductory text already indicates that the section applies to hazardous materials subject to the provisions of the HMR that are carried in an aircraft. If a shipment of dry ice is excepted from all other requirements of the HMR under § 173.217(c)(5), the shipper of dry ice does not need to consult § 175.33 for air shipping paper and notification of pilot-in-command requirements as these requirements no longer apply.

Section 175.75

Section 175.75 specifies the requirements for quantity limitations and cargo locations for hazardous materials transported by aircraft. With few exceptions, paragraph (d) requires each package containing a hazardous material acceptable only for cargo aircraft to be loaded in such a manner that a crew member or other authorized person can access, handle and when size and weight permit, separate such packages from other cargo during flight. To increase flexibility in these stowage requirements, in the NPRM we proposed to expand this requirement to allow for the stowage of these materials in inaccessible cargo compartments, provided the compartment has an FAA-approved fire or smoke detection system and a fire-suppression system.

Five commenters [FedEx, IPA, NACA, Omni, UPS] support our proposal to allow the loading of cargo aircraft only hazardous materials in a cargo compartment that has an FAA-approved fire or smoke detection and a fire-suppression system. However, several commenters request clarification of the regulatory language and recommend revisions or additional changes. UPS is concerned that the proposed language to require an FAA-approved fire or smoke detection and a fire-suppression system is inconsistent with ICAO TI because it may allow for an FAA-approved system that is not identical to the certification requirements for a Class C compartment. The commenter notes ''* * * In the Technical Instructions, the new provision will refer specifically to Class C compartments.'' We disagree. The FAA defines a Class C cargo compartment as a compartment in which there is a separate approved smoke detector or fire detector system to give warning at the pilot or flight engineer station and there is an approved built-in fire extinguishing or suppression system controllable from the cockpit. An FAA-approved system would be a system meeting the requirements for a Class C compartment as certified by FAA. Secondly, with regard to the use of freight containers, the ICAO TI allow for variation in the type of system as long as the system is ''equivalent to that required by the certification requirements for a Class C aircraft cargo compartment as determined by the appropriate national authority.'' However, we believe clarification of the language is beneficial, and, in this final rule, we are revising § 175.75(d) to reference Class C cargo compartment requirements specified in the FAA cargo compartment requirements in 14 CFR 25.857. Additionally, based on a recommendation from Omni to be more consistent with ICAO TI, we are also adding a provision to § 175.75(d) for the use of an FAA-certified freight container which has an approved fire or smoke detection system and fire suppression system equivalent to a Class C aircraft cargo compartment.

Two commenters [UPS, FedEx] request clarification whether packages eligible for carriage aboard passenger aircraft should also be allowed to be loaded in an inaccessible Class C cargo compartment on a passenger aircraft, and whether any weight limitations should be applied to packages authorized for passenger aircraft that are loaded in a Class C cargo compartment on a cargo aircraft. FedEx indicates, ''* * * We do not believe it was PHMSA's intent to prohibit DG acceptable for Passenger Aircraft from also being loaded [in an] inaccessible [compartment] provided the compartment has an FAA-approved fire or smoke detection system and a fire-suppression system.'' FedEx suggests revising § 175.75(c) to accommodate loading in inaccessible cargo compartments aboard passenger aircraft and notes that this would also require a revision of the tables in § 175.75(e). In its comments, UPS suggests that the proposed requirements would place no limit on the amount of cargo aircraft only hazardous materials that can be loaded in an inaccessible compartment provided the compartment meets the certification requirements for a Class C

compartment. UPS adds, ''* * * in light of the changes proposed for loading CAO shipments, the unlimited loading of [packages authorized for passenger aircraft] in Class C cargo compartments seems both reasonable and justified.'' UPS recommends PHMSA also revise § 175.75(c) to except packages authorized for passenger aircraft and loaded in Class C cargo compartments from the net weight limitations and revise the table in § 175.75(e) to reflect any changes made in paragraphs (c) and (d).

We acknowledge UPS' comments and will work with FAA to consider revisions to the table in a future rulemaking. However, in this final rule, we are revising the introductory language to the quantity and loading tables to clarify that loading cargo aircraft only packages in conformance with paragraph (d) of § 175.75 is considered accessible for quantity limit purposes of the table in § 175.75(f).

One commenter [Omni] believes consideration should be given to eliminate the restriction to limit the net weight of hazardous materials loaded in an inaccessible manner to 25 kg with an additional 75 kg of Division 2.2. Based on comments we received under Docket HM–228 (71 FR 14586; March 22, 2006), we determined such a restriction is necessary for the safety of cargo aircraft transporting hazardous materials, and that greater quantities of hazardous materials in inaccessible compartments on cargo aircraft would unnecessarily compound a situation faced by the crew in an unrelated fire. Therefore, we did not adopt a proposal to eliminate the restriction.

One commenter [NACA] supports our proposal for all materials except Class 8 corrosive materials. NACA states, ''* * * A leaking corrosive substance would then not be discovered until substantial damage has possibly been done to the aircraft and/or other cargo. We disagree. The suggestion to restrict a class of hazardous material from being loaded in an inaccessible cargo compartment may have merit but is beyond the scope of this rulemaking. We did not propose any restrictions on classes of hazardous materials that can be loaded in accordance with § 175.75(d).

Finally, for clarity and greater understanding of the quantity limitations and cargo location requirements in § 175.75, we are revising this section by re-designating paragraph (e)(5) to new paragraph (f) to indicate the Quantity and Loading Tables are a ''stand-alone'' summary of the requirements found in paragraphs (a) through (e).

Section 175.88

Section 175.88 specifies the requirements for the inspection, orientation and securing of packages of hazardous materials transported by aircraft. In the NPRM, we proposed to revise paragraph (c) to specify that packages of hazardous materials must be secured at all times in an aircraft in a manner that will prevent shifting or prevent a change in the position of the packages in the cargo compartment. Two commenters [COSTHA, Omni] support our proposal to specify that packages of hazards materials aboard aircraft must be secured at all times. However, COSTHA requests that we clarify paragraph (c) pertaining to the meaning of the provision to require securing of packages in a manner to prevent a change in position of the packages. The commenter believes the use of the term ''position'' is unclear and can be misinterpreted to mean the location of the package rather than its orientation. The commenter recommends that PHMSA revise the language to be more consistent with the language in the ICAO TI. We agree that the use of the term may be confusing, and therefore, for clarity and greater consistency with ICAO TI, in this final rule, we are revising paragraph (c) to clarify that packages containing hazardous materials must be secured at all times in an aircraft in a manner that will prevent any shifting or any change in the orientation of the packages.

Part 176

Section 176.2

Section 176.2 establishes definitions specific to the transportation of hazardous materials by vessel. In this final rule, we are editorially revising the definition for ''Commandant'' to update a routing designation.

Section 176.3

Section 176.3 establishes requirements for shipments of hazardous materials that are unacceptable for transportation by vessel, and requires compliance with parts 172 and 173 of the HMR. In this final rule, we are specifying that compliance with subpart C of part 171 is also required.

Section 176.84

Section 176.84 establishes requirements for stowage and segregation for cargo vessels and passenger vessels. Consistent with revisions for certain materials in the HMT, we are removing stowage codes ''134,'' ''139,'' and ''140,'' and adding a new stowage code ''145.'' Stowage code 140 is assigned to ''Aluminum alkyl halides, liquid,'' UN3052, and ''Aluminum alkyl halides, solid,'' UN3461. Both of these shipping descriptions are being removed consistent with the adoption of appropriate generic organometallic entries. Stowage code ''139'' provides instruction to ''stow 'separated from' mercury salts.'' The provision is a duplication of stowage code ''70,'' and both codes are assigned to the entry ''1,4-Butynediol,'' UN2716. Additionally, stowage code ''139'' is only assigned to this specific entry. Therefore, we are removing stowage code ''139.'' Stowage code ''140'' provides instruction to ''stow 'separated from' UN3052 and UN3461,'' which are identification numbers for aluminum alkyl halides in liquid and solid form, respectively. These entries are being removed in this final rule. Consistent with the removal of these UN numbers from the hazardous materials table, we are removing stowage code ''140.'' Stowage code ''145'' provides instruction to ''stow 'separated from' ammonium compounds except for UN1444.'' The stowage code is assigned to ''Potassium persulfate,'' UN1492, and ''Sodium persulfate,'' UN1505. These materials may form explosive mixtures with ammonium compounds; however, they do not react dangerously or form explosive mixtures when in contact with ''Ammonium persulphate,'' UN1444. Finally, in order to fully align the HMR with the IMDG Code, a new vessel stowage code ''146'' is being added to specify that, ''Category B stowage applies for unit loads in open cargo transport units.'' The new vessel stowage code ''146'' is assigned to ''Batteries, wet, filled with acid, *electric storage,*'' UN2794 and ''Batteries, wet, filled with alkali, *electric storage,*'' UN2795 in column (10B) of the HMT.

Section 176.172

Section 176.172 establishes the structural serviceability requirements for freight containers and vehicles carrying Class 1 (explosive) materials on vessels. The IMDG Code, as recently amended, establishes similar requirements; however, unlike the HMR, the IMDG requirements expressly except containers carrying Division 1.4 explosives. Under the HMR, as provided in § 176.172(c), Division 1.4 explosive materials need not be accompanied by a statement certifying that the freight container is structurally serviceable. However, this certification exception does not explicitly except freight containers carrying Division 1.4 explosives from the underlying serviceability requirements. Because

Division 1.4 explosives are of a comparatively lower risk relative to 1.1, 1.2, and 1.3 explosives, the structural serviceability requirements, like an accompanying certification, become correspondingly less valuable as a safety control. Therefore, in this final rule, we are amending paragraph (a) of this section for consistency with the requirements of the IMDG Code, by excluding freight containers containing Division 1.4 explosive materials from the structural serviceability requirements.

Part 178

Section 178.33b

As noted in the discussion under § 173.306, we are adding a new section to define the design, construction, and testing requirements for inner nonrefillable plastic containers for aerosols. Specifically, we are adding a new § 178.33b to specify packaging; compliance; type and size; inspection; duties of an inspector; material; manufacture; design qualification, production, and leak testing; and marking requirements for inner nonrefillable plastic receptacles.

One commenter [P&G] requests we amend the drop test criteria in § 178.33b–7 to specify that the container should not be dropped on the valve. We acknowledge the commenter's concern about impacting and possibly damaging the valve during the drop test. Therefore, we are amending § 178.33b–7 to specify that orientation of the test containers at drop is statistically random, but that direct impact on the valve or valve closure is to be avoided. We received no additional comments opposing these proposals; therefore, in this final rule, we are adopting these proposals without further change.

In addition, this same commenter requests that we permit the use of recycled plastics in plastic containers. We disagree. We do not believe that the use of recycled plastic in plastic containers ensures the quality of the material. In addition, we believe that the design qualification testing of the containers will not be representative of the production containers if each batch of plastic is unknown. Therefore, we are adopting without change, these requirements as proposed in the NPRM.

Section 178.502

Section 178.502 establishes the identification codes for marking packagings to certify conformance with UN performance standards. We are including a note at the end of this section to indicate that plastic materials include other polymeric materials such as rubber and, thus, the code used to designate plastic packagings may also be used for packagings constructed of other polymeric materials.

Section 178.703

Section 178.703 establishes marking requirements for IBCs. We are including an additional marking requirement to specify the maximum permitted stacking load applicable when an IBC is in use, with a transition date until January 1, 2011. The symbol must be not less than 100 mm (3.9 inches) × 100 mm (3.9 inches), and must be durable and clearly visible. The letters and numbers must be at least 12 mm high (.48 inches). The mass marked above the symbol must not exceed the load imposed during the design test divided by 1.8.

One commenter [American Trucking Associations] strongly supports our proposal to add a marking requirement to indicate whether or not an IBC is capable of being stacked and to include the maximum permitted stacking load applicable. However, the commenter recommends that the marking be used for all packagings that have stacking restrictions. Additionally, the commenter recommends that we shorten the transition period for use of the new marking to 90 days following the effective date for newly manufactured and remanufactured packagings, and require an effective date on or before January 1, 2011 for all other packagings.

We disagree. PHMSA did not propose to include the marking for all packagings subject to stacking restrictions. Additionally, we believe the January 1, 2011 date provides an adequate transitional period for use of the new stacking marking. Therefore, in this final rule, we are adopting the stacking symbol marking for IBCs as proposed, and clarifying the language to clarify the instructions for use of the marking.

Section 178.801

Section 178.801 establishes general requirements for the testing of IBCs. For clarification, in this final rule, we are adding a sentence to paragraph (f) to specify that the IBC must be fitted with the primary bottom closure during production testing and inspection.

Section 178.810

Section 178.810 establishes the requirements for a drop test conducted for the qualification of all IBC design types. In this final rule, we are revising the criteria in paragraph (e) for passing the drop test to specify that no damage is permitted which renders the IBC unsafe to be transported for salvage or for disposal, or results in a loss of contents. In addition, we are revising this paragraph to specify that the IBC must be capable of being lifted by an appropriate means until clear of the floor for five minutes.

IV. Regulatory Analyses and Notices

A. Statutory/Legal Authority for This Rulemaking

This final rule is published under the following statutory authorities:

1. 49 U.S.C. 5103(b) authorizes the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous materials in intrastate, interstate, and foreign commerce. This final rule amends regulations to maintain alignment with international standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations and vessel stowage requirements. To this end, as discussed in detail above, the final rule amends the HMR to more fully align them with the biennial updates of the UN Recommendations, the IMDG Code and the ICAO TI; this will facilitate the transport of hazardous materials in international commerce.

Harmonization serves to facilitate international transportation; at the same time, harmonization promotes the safety of people, property, and the environment by reducing the potential for confusion and misunderstanding that could result if shippers and transporters were required to comply with two or more conflicting sets of regulatory requirements. While the intent of this rulemaking is to align the HMR with international standards, we review and consider each amendment on its own merit based on its overall impact on transportation safety and the economic implications associated with its adoption into the HMR. Our goal is to harmonize without sacrificing the current HMR level of safety and without imposing undue burdens on the regulated public. Thus, as explained in the corresponding sections above, we are not adopting harmonization with certain specific provisions of the UN Recommendations, the IMDG Code, and the ICAO TI. Moreover, we are maintaining a number of current exceptions for domestic transportation that should minimize the compliance burden on the regulated community.

2. 49 U.S.C. 5120(b) authorizes the Secretary of Transportation to ensure that, to the extent practicable,

regulations governing the transportation of hazardous materials in commerce are consistent with standards adopted by international authorities. This rule amends the HMR to maintain alignment with international standards by incorporating various amendments to facilitate the transport of hazardous material in international commerce. To this end, as discussed in detail above, the rule incorporates changes into the HMR based on the Fifteenth revised edition of the UN Recommendations, Amendment 34 to the IMDG Code, and the 2009–2010 ICAO TI, which become effective January 1, 2009. The continually increasing amount of hazardous materials transported in international commerce warrants the harmonization of domestic and international requirements to the greatest extent possible.

B. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is not considered a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, was not reviewed by the Office of Management and Budget. The final rule is not considered a significant rule under the Regulatory Policies and Procedures of the Department of Transportation [44 FR 11034]. This final rule applies to offerors and carriers of hazardous materials, such as chemical manufacturers, chemical users and suppliers, packaging manufacturers, distributors, battery manufacturers, radiopharmaceutical companies, and training companies. Benefits resulting from the adoption of the amendments in this final rule include enhanced transportation safety resulting from the consistency of domestic and international hazard communications and continued access to foreign markets by U.S. manufacturers of hazardous materials.

The majority of amendments in this final rule should result in cost savings and ease the regulatory compliance burden for shippers engaged in domestic and international commerce, including trans-border shipments within North America.

We propose a one-year transition period to allow for training of employees and to ease any burden on entities affected by the amendments. The total net increase in costs to businesses in implementing the final rule is considered to be minimal. Initial start-up and inventory costs would result from these changes; however, the costs would be offset by greater long-term savings of conformance with one set of regulations and a one-year transition period. A regulatory evaluation is available for review in the public docket for this rulemaking.

C. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (''Federalism''). This final rule preempts State, local and Indian tribe requirements but does not propose any regulation that has substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazardous material transportation law, 49 U.S.C. 5101–5128, contains an express preemption provision (49 U.S.C. 5125(b)) that preempts State, local, and Indian tribe requirements on certain covered subjects, as follows:

(1) The designation, description, and classification of hazardous material;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous material;

(3) The preparation, execution, and use of shipping documents related to hazardous material and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; and

(5) The design, manufacture, fabrication, inspection, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material in commerce.

This final rule addresses covered subject items (1), (2), (3), (4) and (5) above and preempts State, local, and Indian tribe requirements not meeting the ''substantively the same'' standard. This final rule is necessary to incorporate changes adopted in international standards, effective January 1, 2009. If the changes in this final rule are not adopted in the HMR, U.S. companies, including numerous small entities competing in foreign markets, would be at an economic disadvantage. These companies would be forced to comply with a dual system of regulations. The changes in this final rule are intended to avoid this result. Federal hazardous materials transportation law provides at section 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. The effective date of Federal preemption is April 14, 2009.

D. Executive Order 13175

This final rule was analyzed in accordance with the principles and criteria contained in Executive Order 13175 (''Consultation and Coordination with Indian Tribal Governments''). Because this final rule does not have tribal implications and does not impose substantial direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply.

E. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities, unless the agency determines that a rule is not expected to have a significant impact on a substantial number of small entities. This final rule facilitates the transportation of hazardous materials in international commerce by providing consistency with international standards. This final rule applies to offerors and carriers of hazardous materials, some of whom are small entities, such as chemical users and suppliers, packaging manufacturers, distributors, battery manufacturers, and training companies. As discussed above, under *Executive Order 12866*, the majority of amendments in this final rule should result in cost savings and ease the regulatory compliance burden for shippers engaged in domestic and international commerce, including trans-border shipments within North America.

Many companies will realize economic benefits as a result of these amendments. Additionally, the changes affected by this final rule will relieve U.S. companies, including small entities competing in foreign markets, from the burden of complying with a dual system of regulations. Therefore, I certify that these amendments will not, if promulgated, have a significant economic impact on a substantial number of small entities.

This final rule has been developed in accordance with Executive Order 13272 (''Proper Consideration of Small Entities in Agency Rulemaking'') and DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential

impacts of draft rules on small entities are properly considered.

F. Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995, no person is required to respond to an information collection unless it displays a valid OMB control number.

PHMSA currently has approved information collections under OMB Control Number 2137–0034, ''Hazardous Materials Shipping Papers and Emergency Response Information'' with 6,500,834 burden hours, and an expiration date of May 31, 2011; and OMB Control Number 2137–0039, ''Hazardous Materials Incidents Reports'' with 23,746 burden hours, and an expiration date of August 31, 2010. Based on comments received in response to the NPRM, this final rule may result in an information collection and recordkeeping burden increase under these information collections. PHMSA will submit revised information collection requests to the Office of Management and Budget (OMB) for approval, and publish the results in a separate **Federal Register** notice.

Section 1320.8(d), Title 5, Code of Federal Regulations requires that PHMSA provide interested members of the public and affected agencies an opportunity to comment on information collection and recordkeeping requests. Requests for a copy of these information collections should be directed to Deborah Boothe or T. Glenn Foster, Office of Hazardous Materials Standards (PHH–11), Pipeline and Hazardous Materials Safety Administration, 1200 New Jersey Avenue, SE., 2nd Floor, Washington, DC 20590–0001.

G. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

H. Unfunded Mandates Reform Act

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $132 million or more, adjusted for inflation, to either State, local or tribal governments, in the aggregate, or to the private sector in any one year, and is the least burdensome alternative that achieves the objective of the rule.

I. Environmental Assessment

The National Environmental Policy Act, 42 U.S.C. 4321–4375, requires that federal agencies analyze proposed actions to determine whether the action will have a significant impact on the human environment. The Council on Environmental Quality (CEQ) regulations order federal agencies to conduct an environmental review considering (1) the need for the proposed action, (2) alternatives to the proposed action, (3) probable environmental impacts of the proposed action and alternatives, and (4) the agencies and persons consulted during the consideration process. 40 CFR 1508.9(b).

1. Purpose and Need

PHMSA is amending the Hazardous Materials Regulations to maintain alignment with international standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations, and vessel stowage requirements. These revisions are necessary to harmonize the Hazardous Materials Regulations with recent changes to the International Maritime Dangerous Goods Code, the International Civil Aviation Organization's Technical Instructions for the Transport of Dangerous Goods by Air, and the United Nations Recommendations on the Transport of Dangerous Goods. The amendments are intended to enhance the safety of international hazardous materials transportation through better understanding of the regulations, an increased level of industry compliance, the smooth flow of hazardous materials from their points of origin to their points of destination, and effective emergency response in the event of a hazardous materials incident.

The HMR regulate materials that meet the definition of a marine pollutant in all modes of transportation. The intended effect is to increase the level of safety associated with the transportation of substances hazardous to the marine environment by way of improved communication of their presence in transportation and establishing appropriate requirements for their packaging. The HMR uses a list based system designed to help shippers determine if a material meets the definition of a marine pollutant. Recently, the IMO adopted a criteria based system for identification of materials hazardous to the marine environment based on the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

2. Alternatives

In developing this final rule, we considered three alternatives:

(1) Do nothing.

(2) Adopt the international standards in their entirety.

(3) Adopt most of the international standards, with certain modifications based on safety or economic considerations.

Alternative 1

Because our goal is to facilitate uniformity, compliance, commerce and safety in the transportation of hazardous materials, we rejected this alternative.

Alternative 2

Under this alternative, we would adopt the classification criteria for marine pollutants in the IMDG Code consistent with the aquatic toxicity criteria adopted within the GHS. However, the new classification system adopted into the IMDG Code is complicated and the associated criteria for classifying mixtures containing marine pollutants would involve an additional layer of complexity without a corresponding public benefit. Therefore, we are not requiring the use of the new IMDG Code environmental classification system.

Alternative 3

Consistency between U.S. and international regulations helps to assure the safety of international hazardous materials transportation through better understanding of the regulations, an increased level of industry compliance, the smooth flow of hazardous materials from their points of origin to their points of destination, and effective emergency response in the event of a hazardous materials incident. Under Alternative 3, we would harmonize the HMR with international standards to the extent consistent with U.S. safety and economic goals. As indicated above, we are not adopting provisions that, in our view, do not provide an adequate safety level. Further, we provide for exceptions and extended compliance periods to minimize the potential economic impact of any revisions on the regulated community.

Under this alternative, we maintain the current marine pollutant criteria and list while permitting the use of the GHS Criteria. If a material not listed as a marine pollutant in the HMR meets the definition of a marine pollutant in accordance with the GHS, that material may be transported as a marine pollutant in accordance with the

applicable regulations. Alternative 3 is the only alternative that addresses, in all respects, the purpose of this regulatory action, which is to facilitate the safe and efficient transportation of hazardous materials in international commerce. These actions will provide the greatest possible harmonization with international requirements without posing an undue increased cost burden on industry. For these reasons, alternative 3 is our recommended alternative.

3. Analysis of Environmental Impacts

Hazardous materials are transported by aircraft, vessel, rail, and highway. The potential for environmental damage or contamination exists when packages of hazardous materials are involved in accidents or en route incidents resulting from cargo shifts, valve failures, package failures, or loading, unloading, or handling problems. The ecosystems that could be affected by a release include air, water, soil, and ecological resources (for example, wildlife habitats). The adverse environmental impacts associated with releases of most hazardous materials are short-term impacts that can be greatly reduced or eliminated through prompt clean-up of the accident scene. Most hazardous materials are not transported in quantities sufficient to cause significant, long-term environmental damage if they are released.

The hazardous material regulatory system is a risk-management system that is prevention-oriented and focused on identifying hazards and reducing the probability and quantity of a hazardous material release. Amending the Hazardous Materials Regulations to maintain alignment with international standards enhances the safe transportation of hazardous materials in domestic and international commerce. When considering the adoption of international standards under the HMR, we review and consider each amendment on its own merit and assess their impact on transportation safety and the environment.

Alternative 1 would maintain the current marine pollutant classification system without change. We do not believe this would result in any significant impacts on the environment. Alternative 2 may result in a significant environmental impact if a material listed in the current marine pollutant list does not meet the GHS criteria. The recommended alternative 3 maintains the marine pollutant criteria and allows the voluntary use of the GHS criteria adopted by the IMDG Code. When a material meets the criteria under the GHS criteria but not the HMR, the material may still be transported under the applicable requirements for a marine pollutant. This would communicate the presence of an environmentally hazardous material consistent with the IMDG Code. Conversely, if a listed marine pollutant does not meet the GHS criteria, the material must be transported as a marine pollutant under the HMR unless approved by the Associate Administrator. The recommended alternative 3 would not result in any significant impact on the environment.

4. Consultations and Public Comment

On June 22, 2005, November 16, 2005, June 21, 2006, and November 29, 2006, PHMSA hosted public meetings with public and private stakeholders to discuss draft U.S. positions on the United Nation's Sub-Committee of Experts on the Transport of Dangerous Goods proposals for the Fifteenth revised edition of the UN Recommendations on the Transport of Dangerous Goods Model Regulations. In addition, PHMSA and the U.S. Coast Guard hosted a public meeting on August 29, 2006, and hosted a second meeting on September 6, 2007, to discuss amendments to the IMDG Code. A public meeting was held in October 2007 to discuss amendments to the ICAO TI. During these public meetings, U.S. positions on proposed amendments to the UN Recommendations were considered and discussed. Positions were established based on input received during these meetings in conjunction with internal review, including thorough technical review.

We have identified a number of immediate and long-term actions that participants in the international community are taking or will take to enhance the safe transportation of hazardous materials. Through this integrated and cooperative approach, we believe we can be most successful in reducing incidents, enhancing safety, and protecting the public.

J. Privacy Act

Anyone is able to search the electronic form of any written communications and comments received into any of our dockets by the name of the individual submitting the document (or signing the document, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477) or you may visit *http://www.dot.gov/privacy.html.*

K. International Trade Analysis

The Trade Agreements Act of 1979 (Pub. L. 96–39), as amended by the Uruguay Round Agreements Act (Pub. L. 103–465), prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. For purposes of these requirements, Federal agencies may participate in the establishment of international standards, so long as the standards have a legitimate domestic objective, such as providing for safety, and do not operate to exclude imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. PHMSA participates in the establishment of international standards in order to protect the safety of the American public, and we have assessed the effects of the final rule to ensure that it does not exclude imports that meet this objective. Accordingly, this rulemaking is consistent with PHMSA's obligations under the Trade Agreement Act, as amended.

List of Subjects

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

49 CFR Part 172

Education, Hazardous materials transportation, Hazardous waste, Incorporation by reference, Labeling, Markings, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 173

Hazardous materials transportation, Incorporation by reference, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

49 CFR Part 175

Air carriers, Hazardous materials transportation, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 176

Hazardous materials transportation, Incorporation by reference, Maritime carriers, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 178

Hazardous materials transportation, Incorporation by reference, Motor vehicle safety, Packaging and containers, Reporting and recordkeeping requirements.

Issued in Washington, DC on December 30, 2008, under authority delegated in 49 CFR part 1.

Carl T. Johnson,

Administrator, Pipeline and Hazardous Materials Safety Administration.

[FR Doc. E8–31383 Filed 1–13–09; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 172 and 174

[RSPA Docket No. 2006–26322 (HM–206F)]

RIN 2137–AE21

Hazardous Materials: Revision of Requirements for Emergency Response Telephone Numbers

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Final rule.

SUMMARY: In this final rule, PHMSA is amending the Hazardous Materials Regulations to clarify requirements governing emergency response information services provided by arrangement with hazardous materials offerors (shippers). In order to preserve the effectiveness of these arrangements for providing accurate and timely emergency response information, PHMSA is requiring basic identifying information (offeror name or contract number) to be included on shipping papers. This information will enable the emergency response information provider to identify the offeror on whose behalf it is accepting responsibility for providing emergency response information in the event of a hazardous materials incident and obtain additional information about the hazardous material as needed.

DATES: *Effective Date:* The effective date of this final rule is November 18, 2009.

Voluntary Compliance Date: PHMSA is authorizing immediate voluntary compliance beginning November 18, 2009.

FOR FURTHER INFORMATION CONTACT: Joan McIntyre, Office of Hazardous Materials Standards, telephone (202) 366–8553, Pipeline and Hazardous Materials Safety Administration.

SUPPLEMENTARY INFORMATION:

I. Background

On July 2, 2007, PHMSA issued a notice of proposed rulemaking (NPRM; 72 FR 35961) proposing to make a narrow, clarifying change to the requirements of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171–180) applicable to emergency response telephone numbers on shipping papers. With limited exceptions not applicable here (refer to §§ 172.600(d) and 172.604(c)), the HMR require shipments of hazardous materials to be accompanied by shipping papers and other documentation designed to communicate to transport workers and emergency responders the hazards associated with a specific shipment. This information must include the immediate hazard to health; risks of fire or explosion; immediate precautions to be taken in the event of an accident; immediate methods for handling fires; initial methods for handling spills or leaks in the absence of fire; and preliminary first aid measures. The information must be in writing, in English, and presented on a shipping paper or related shipping document (*see* § 172.602).

In addition to written emergency response information, § 172.604(a) of the HMR requires a person who offers (offeror) a hazardous material for transportation in commerce to list an emergency response telephone number on the shipping paper. The emergency response telephone number must connect a caller to the offeror or to a person capable of and accepting responsibility for providing detailed information about the hazardous materials shipment. The emergency response telephone number is used by emergency responders and transport workers to obtain detailed, product-specific information, including directions for remedial measures to be taken in the event of an incident during transportation.

The telephone number must be answered by a person who is knowledgeable about the material being shipped and possesses comprehensive emergency response and incident mitigation information for that material, or has immediate access to a person who possesses such knowledge. Under this standard, ''immediate access'' requires the emergency response information to be provided to the emergency responder or transportation worker promptly and with no undue delay. Additionally, the emergency response telephone number must be active, with no limitations, during the entire time a shipment is in transportation, including storage incidental to movement and intermodal shipments that are transferred from one carrier to another for continued transportation. Simply stated, the term ''storage incidental to movement'' means storage occurring between the time a hazardous material is offered for transportation and the time it is delivered to the consignee (*see* § 171.8 for complete definition for ''storage incidental to movement'').

As currently required in § 172.604(b), if the offeror uses the services of an emergency response information provider (ERI provider), the offeror must ensure that the ERI provider has up-to-date information on the hazardous material and that the ERI provider is capable of and has accepted responsibility for providing detailed emergency response information applicable to the hazardous material.

As discussed in the preamble to the NPRM, we have become aware of a number of problems associated with emergency response telephone numbers on shipping papers, specifically related to the increasing use by offerors of ERI providers to comply with the requirements of § 172.604. In such situations, the original offeror enters into a contract or agreement with an agency or organization (industry associations may offer this service to their members) accepting responsibility for providing detailed emergency response information in accordance with § 172.604(b). The telephone number on the shipping paper is the telephone number of the ERI provider, but the original offeror is not required to include a notation to this effect on the shipping paper, nor is the name of the original offeror required to appear on the shipping paper. Thus, the identity of the person who arranged with the ERI provider is not readily available through shipping documentation.

This problem is exacerbated because, under the HMR, a carrier or freight forwarder preparing a shipping paper for the continued movement of a hazardous material in commerce may rely on information provided by the original offeror for the preparation of the new shipping paper (for example, the classification of the material, the compatibility of the material with the packaging being used, or the emergency response telephone number), so long as the carrier or freight forwarder exercises due care. For example, a carrier or freight forwarder may rely on an emergency response telephone number provided by a preceding offeror unless

it is aware (or should be aware) of facts indicating the emergency response telephone number is not operative (such as when the offeror has not contracted with the ERI provider) and does not meet the requirements of § 172.604(b).

The initial shipment of hazardous materials may be handled by several entities before reaching its final destination. For example, a motor carrier may accept a shipment from the originating offeror for transportation and deliver the material to a freight forwarder to arrange continued transportation. The freight forwarder may prepare shipping papers using the emergency response telephone number provided by the originating offeror. The freight forwarder may then arrange for continued shipment of the hazardous material by rail; a rail carrier may prepare shipping documentation using the information, including the emergency response telephone number, provided by the freight forwarder. The shipping documentation accompanying the shipment may or may not include the name of the originating offeror. In cases where the originating offeror arranges with an emergency response service to provide telephone service, the nexus between the offeror and ERI provider may be lost as new shipping papers are prepared at each stage of transportation. For example, when new shipping papers are prepared for continued transportation of the hazardous materials, the original offeror's name is typically removed and replaced with the subsequent offeror's name. When the initial offeror is also the ERI registrant, that information is no longer available when the emergency responder calls the ERI provider.

Without the name of the offeror who arranged for an emergency response service, an ERI provider may not be able to communicate the product-specific information that was provided by the original offeror. This could result in a serious problem if transportation workers or emergency response personnel must use the telephone number to request assistance in handling an accident or emergency. Most ERI providers will attempt to provide assistance whether or not they can verify that an offeror arranged for emergency response service. However, without the identification of the particular offeror who has made arrangements with the service, it may not be possible for the emergency response service to quickly access information specific to the material involved in an incident, thereby defeating the purpose of the requirement in § 172.604 to enable transport workers and emergency response personnel to expeditiously obtain detailed information about a hazardous materials shipment. A delay or improper response due to lack of accurate and timely emergency response information may place emergency response personnel, transportation workers, and the general public at increased risk. Expeditious identification of the hazards and direction for appropriate handling and clean up associated with specific hazardous materials is critical in mitigating the consequences of hazardous materials incidents.

To remedy this problem, in the NRPM we proposed to require that when an ERI provider is used to comply with the requirements of § 172.604, the offeror must be identified on the originating shipping paper and any subsequent shipping papers that use the ERI provider's emergency response telephone number. Specifically, we proposed to:

1. Require the offeror who made the arrangement with the ERI provider to be identified on the shipping paper. Any party preparing a shipping paper would be required to identify the original offeror, by name or contract number, with the emergency response telephone number indicated on the shipping paper, and clearly note the identification in association with the emergency response telephone number, or insert and identify its own emergency response telephone number conforming to the requirements in Subpart G of Part 172.

2. Clarify that any person preparing a subsequent shipping paper for continued transport of hazardous materials must include the original offeror's name if that offeror is the registrant for the emergency response telephone service. Again, the name of the original offeror or its contract number with the ERI provider would be required to be included on the shipping paper, or the person preparing subsequent shipping papers must insert and identify by name its own valid emergency response number conforming to the requirements in Subpart G of Part 172.

3. We also proposed the following clarifications:

—To clarify that international telephone numbers used to comply with the emergency response telephone number requirement must include the country code, and city code as appropriate.

—To clarify that the emergency response telephone number requirements do not apply to transport vehicles or freight containers containing lading that has been fumigated and displays the FUMIGANT marking, as required by § 173.9 of the HMR, unless other hazardous materials are present in the cargo transport unit.

II. Comments to the NPRM

A total of 23 persons submitted comments to the NPRM, representing industry associations, emergency responders, emergency response information services, offerors, carriers, and the general public. The comments may be accessed via *http://www.regulations.gov* and are as follows:

1. Arkema, Inc.—PHMSA–2006–26322–02.
2. The FPL Group—PHMSA–2006–26322–04.
3. Jerry Shipman—PHMSA–2006–26322–06.
4. Institute of Makers of Explosives (IME)—PHMSA–2006–26322–07.
5. International Vessel Operators Hazardous Materials Association (VOHMA)—PHMSA–2006–26322–08 and 09.
6. American Trucking Associations (ATA)—PHMSA–2006–26322–10.
7. United Parcel Service (UPS)—PHMSA–2006–26322–11.
8. Air Products and Chemicals (Air Products)—PHMSA–2006–26322–12.
9. Aviation Suppliers Association (ASA)—PHMSA–2006–26322–13.
10. Council on Radionuclides and Radiopharmaceuticals, Inc. (CORAR)—PHMSA–2006–26322–14.
11. Association of American Railroads (AAR)—PHMSA–2006–26322–15.
12. Council on Safe Transportation of Hazardous Articles (COSTHA)—PHMSA–2006–26322–16.
13. National Association of Chemical Distributors (NACD)—PHMSA–2006–26322–17.
14. Veolia ES Technical Solutions LLC (Veolia)—PHMSA–2006–26322–18.
15. The Chemical Emergency Transportation Center (CHEMTREC)—PHMSA–2006–26322–19.
16. Fed Ex Express (Fed Ex)—PHMSA–2006–26322–20.
17. American Pyrotechnics Association (APA)—PHMSA–2006–26322–21.
18. Utility Solid Waste Activities Group (USWAG)—PHMSA–2006–26322–22.
19. International Association of Fire Chiefs (IAFC)—PHMSA–2006–26322–23.
20. National Paint & Coatings Association (NPCA)—PHMSA–2006–26322–24.
21. Veolia Environmental Services (Veolia)—PHMSA–2006–26322–25.
22. Lighter Association, Inc.—PHMSA–2006–26322–26.

23. Dangerous Goods Advisory Council (DGAC)—PHMSA–2006–26322–27.

III. Revisions to the HMR Adopted in This Final Rule

In this rulemaking we are requiring the offeror who is registered with the ERI provider, as reflected by the provider's telephone number on shipping papers, to be identified on the shipping paper. Specifically, we are revising the HMR to:

1. Require an offeror who has made an arrangement with an ERI provider to be identified on the shipping paper in clear association with the emergency response telephone number. In response to comments, we are clarifying that if the name of the offeror is prominently and clearly listed elsewhere on the shipping paper, it need not also be listed in association with the emergency response telephone number.
2. Clarify that any person preparing a subsequent shipping paper for continued transport of a hazardous materials shipment must include the offeror's name (whether the original or subsequent offeror) that is the registrant for the ERI provider and that will be in use for the continued transportation of the shipment. The name of the original or subsequent offeror or its contract number with the ERI provider must be included on the shipping paper. If the original or subsequent offeror is not continuing as the registrant with the ERI provider, the person preparing subsequent shipping papers must insert and identify by name its own valid emergency response telephone number conforming to the requirements in Subpart G of Part 172.
3. Clarify that the person answering the ERI provider's telephone number transmits all written information in English.
4. Clarify that international telephone numbers used to meet the emergency response telephone number requirement must include the international access code or a ''+'' sign as a placeholder for the international access code, country code, and city code as appropriate.
5. Clarify the term ''clear association'' with respect to the placement of the identity of the registrant of the ERI provider.
6. Clarify the current requirement for the emergency response telephone number to be provided on the shipping paper in a ''clearly visible'' location.
7. Clarify that the emergency response telephone number requirements do not apply to transport vehicles or freight containers containing lading that has been fumigated and displays the FUMIGANT marking, as required by § 173.9 of the HMR, unless other hazardous materials are present in the cargo transport unit.

The amendments in this final rule are intended to fill a gap that was unforeseen when we initially adopted these requirements in 1989 under Docket HM–126C (54 FR 27138, 06/27/89). The amendments in this final rule will help to ensure that transportation workers and emergency response personnel are provided with accurate and timely information about the hazardous materials involved in a transportation accident or other emergency. This final rule will also serve to eliminate delays in transportation due to lack of such information, and eliminate problems created when compliance personnel are not able to verify emergency response telephone numbers.

IV. Discussion of Comments

As discussed in detail below, we received comments that are mostly supportive of our proposal to require basic identifying information to be included on shipping papers and some that are not supportive. However, some comments express concerns on certain provisions and request additional revisions. Some comments, such as defining the term ''interlining carrier'' and adopting authorization to use electronic data information are beyond the scope of this rulemaking and, therefore, are not addressesd in this final rule.

DGAC agrees that it is necessary to have a clear linkage between the offeror making arrangements with an ERI provider and the provider's emergency response telephone number, but recommends that we address this issue as part of our ongoing initiative to identify ways to promote faster, more efficient communication among shippers, carriers, and emergency responders through the use of electronic data exchange technologies. This initiative is a long-term project that may not be completed for several years. This final rule is intended to minimize delay or improper response resulting from a lack of accurate and timely emergency response information. Absent regulatory action, emergency response personnel, transportation workers, and the general public could be placed at increased risk. Thus, we do not believe delaying this rulemaking is justified.

Of the commenters supporting the intent of this rulemaking, VOHMA comments that valuable time is lost when shipments are delayed while emergency responders or enforcement officers are attempting to obtain or verify emergency response information and their efforts are obstructed because the party who arranged with the ERI provider is not noted on the shipping papers. CHEMTREC, an ERI provider, comments that for the arrangement between the registrant and CHEMTREC to work effectively, the registrant must be identified on the shipping paper. The IAFC comments that first responders can prevent or reduce the amount of damage or injury at the scene if they have specific information on the hazardous materials and also states that the safety of the public and emergency responders, and the impact on business operations can depend on quickly obtaining comprehensive and correct information.

A detailed discussion of comments to the NPRM follows.

A. Reliance on Original Information

Several commenters, including Fed Ex and UPS, ask us to restate the clarification that was published under Docket HM–223A (70 FR 43638) and reiterated in the HM–206F NPRM. The clarification addressed a carrier relying on information provided by the original or previous offeror of the hazardous material.

As stated in the NPRM's preamble (72 FR 25962), the definition of a ''person who offers or offeror'' includes ''any person who performs, or is responsible for performing, any pre-transportation function required under this subchapter for transportation of the hazardous material in commerce.'' The definition further provides that a carrier is not an offeror when it performs a function as a condition of accepting a hazardous material shipment for continued transportation without performing a pre-transportation function (*see* definition for ''pre-transportation function'' in § 171.8). In accordance with § 171.2(f), an offeror and carrier may rely on information provided by a previous offeror or carrier unless it knows or a reasonable person acting in the circumstances and exercising reasonable care would know, that the information provided is incorrect. Under § 5123(a)(1) of the Federal hazardous materials transportation law (Federal hazmat law, 49 U.S.C. 5101 *et seq.*), a person acts knowingly when the person has actual knowledge of the facts giving rise to the violation; or a reasonable person acting in the circumstances and exercising reasonable care would have that knowledge.

An offeror or an interconnecting carrier who knowingly or willfully provides incorrect information to a subsequent carrier, or a subsequent carrier who knowingly accepts and continues to use inaccurate information,

is in violation of the HMR. A civil or criminal penalty (*see* §§ 107.329 and 107.333) may be assessed against any person subject to the HMR who knowingly or willfully offers for transportation or transports a hazardous material in a manner not complying with the HMR.

To reiterate, a carrier, freight forwarder, or other entity may rely on the previous information *unless* the entity has knowledge that the information is incorrect. Ensuring correct information is the responsibility of the person preparing shipping papers, and *any* person with knowledge of incorrect information may not continue to use that information. Communication between the original and subsequent offeror before the shipment reaches the subsequent offeror may be warranted in cases when confusion exists on whether the original offeror's ERI provider will continue to be used.

B. Use of Emergency Response Number by Subsequent Offerors

Some commenters read the NPRM as proposing to require the original offeror to maintain its emergency response information telephone number for subsequent offerors when no agreement has been authorized by the original offeror. For example, IME requests that we correct or confirm its understanding that the ''option'' to use the originating offeror's emergency response number applies only to that offeror's shipment. The commenters state that they support the intent of the rule, but that we appear to be expanding the requirement for originating offerors to provide and monitor emergency response information telephone numbers beyond the delivery of the shipment to the destination on the original offeror's shipping papers.

The commenters have misread the NPRM. We did not propose to require the original offeror to maintain an emergency response telephone number throughout subsequent offerors' movements of hazardous materials. We proposed only that the existing requirement for the notation of an emergency response telephone number be augmented by the inclusion of the registrant's name or contract number with the ERI provider. This rulemaking was prompted, in part, because some subsequent carriers when preparing new shipping papers were omitting the initial registrant's name, inserting their own name, but retaining the initial offeror's ERI provider for which the initial offeror was the registrant. Whether in cases where the previous offeror's ERI provider was intended to end upon acceptance of the shipment by the subsequent offeror or was intended to be active for the subsequent offeror, the identifying link to the ERI provider was lost and the telephone number was no longer operative for the shipment.

Whether the original or previous offeror's ERI provider's telephone number remains active for a subsequent offeror is a matter of agreement between the two parties. A subsequent offeror may not assume that it has authorization to use the original or previous offeror's emergency response telephone number.

C. Use of the Terms ''Emergency Response Service Provider'' and ''Emergency Response Information Provider''

DGAC and CHEMTREC comment that our use of the term ''emergency response service provider'' connotes a range of emergency services beyond that required by the emergency response telephone number and may lead to confusion. The commenters suggested the use of the term ''emergency response information provider.'' We agree the term provides clarity and have made the revision.

Veolia states that the term ''emergency response information'' is defined in § 172.602(a) as the minimum information that must be made available, but that in § 172.604(a)(2), when describing the information that must be maintained by the emergency response information provider, we use the phrase ''comprehensive emergency response and incident mitigation information.'' Veolia requests that we remove the latter phrase in § 172.604 and replace it with ''emergency response information.'' We note concerning this comment that the two sections are intended for two different purposes. Section 172.602 refers to the emergency response information that must be printed on or attached to the shipping paper, while § 172.604 is specific to the emergency response telephone number. The person manning the emergency response information telephone number must be able to provide specific and detailed information about the hazardous material (for example, characteristics of the material and comprehensive emergency response information) to supplement and expand on the written emergency response information provided with the shipping paper, such as the Emergency Response Guide (ERG), including comprehensive emergency response and incident mitigation information. The person should have the capability of contacting the shipper for additional information and/or have immediate access to such information. For this reason, we are not making the requested change.

D. Comprehensive Knowledge of the Shipment and Needs of Emergency Response Personnel

Some commenters express concern about obtaining the most comprehensive knowledge regarding the specific hazardous materials being shipped, stating that the only way to do this is through direct access to the offeror. ATA states that the NPRM does not directly address the problem of ensuring that emergency responders will have direct access to the offeror. Air Products suggests that if a subsequent carrier or freight forwarder prepares its own subsequent shipping papers and uses an ''outside'' ERI provider, the subsequent offeror and provider may not have the necessary information to properly advise emergency responders on the scene. APA states that the emergency response telephone number, hazardous materials description and manifests should carry over throughout an intermodal shipment from the initial offeror to the final consignee. (**As a note:** APA contracts with a third party emergency response provider who provides detailed emergency response information conforming to § 172.604. APA members may participate in the service and register through APA, and APA submits the participant list to the ERI provider; thus, each member is individually registered.) IAFC states that general reference materials are not substitutes for direct contact with the offeror who has the most knowledge of the product.

We agree with the commenters that the offeror will have the most comprehensive knowledge about a specific hazardous material. That is why the HMR requirement for the emergency response telephone number allows for and, indeed, anticipates that the number provided by the original offeror will often be utilized throughout transportation from the original offeror to the consignee. We remind offerors and ERI providers that § 172.604(a)(2) requires the telephone number to be that of a person who is either knowledgeable of the hazardous material being shipped and has *comprehensive* emergency response and incident mitigation information for that material, or has immediate access to a person who possesses such knowledge and information. We agree with IAFC's point that knowledgeable contacts require more than a rote reading from general reference materials, such as the ERG. Offerors must meet the existing comprehensive emergency response requirement by supplying the ERI

provider and subsequent offerors, as applicable, with complete and detailed information relevant to the hazardous material, and subsequent offerors must also supply any ERI provider that they engage for themselves with the additional information supplied to them by the original or previous offeror. We remind the reader that § 172.604(b) currently requires the ERI provider to have detailed information concerning the hazardous material and specifies that ''the person offering a hazardous material for transportation who lists the telephone number of an agency or organization shall ensure that the agency or organization has received current information on the material as required by paragraph (a)(2),'' *which specifies comprehensive and incident mitigation information for the material*. Again, a rote reading alone is not sufficient.

COSTHA contends that the existing emergency response telephone number requirement fully meets the needs of emergency response personnel and that we should only clarify the existing requirement that all hazardous materials shipping documentation must include an emergency response contact number representing the number supplied by the offeror. The Lighter Association also questions the advantage of the identification of the party who is registered with the provider, stating that products such as lighters go through many hands (sales agents, distributors, retailers and other third parties) and that often the identity of the party registered with the provider is not known. The Lighter Association asserts that identification of the material by hazard class on the shipping paper and the marking and placarding requirements are sufficient and states that the registrant most likely is ''not going to be readily available.''

These commenters appear to have misread the NPRM. The purpose of the NPRM proposals is to enable emergency responders and transportation workers to readily obtain information from a third-party provider, not for them to obtain the information from the registrant. When the provider is called and the registrant cannot be matched with the product, the provider attempts (with no obligation when an offeror is not registered) to respond with general information applicable to the shipping description, but the *product specific* information cannot be obtained because the identity of the registrant is not known. Providing comprehensive information for any hazardous material is critical to ensure that emergency response personnel and transportation workers are equipped with the means to respond appropriately and as swiftly as possible to a hazardous material situation. Such information is particularly important if the hazardous material is shipped under a generic shipping name (*e.g.*, flammable liquid n.o.s.) where complete emergency response information may depend on an in-depth knowledge of the hazardous constituents of the material. If the emergency response information provider cannot identify the registrant, then the complete and product specific information about the hazardous material cannot be provided to the emergency responders.

We cannot emphasize enough that lack of complete information applicable to the hazardous material being transported impacts the ability of emergency response personnel to properly, safely and expeditiously take action when an incident occurs. Crucial delays can occur with the response and clean up process when the identity of the offeror registered with the ERI provider is not reflected on the shipping paper. The delays may result in serious risks to people and the environment, and may also disrupt the continued transportation of shipments when emergency responders and transportation workers are pressed to take valuable time on the scene of an incident to obtain emergency response information. CHEMTREC asks us to inform the regulated community that it makes it known to each person registering with CHEMTREC that either the previous offeror should be indicated on the shipping paper (if continuing to maintain an emergency response telephone number), or the party that has taken on the offeror function should itself be registered.

E. Format on Shipping Papers

Several commenters request that we provide a specific format for the identification of the registrant of the ERI provider, stating that, as proposed, it may not always be clear who is registered with the ERI provider. For example, COSTHA notes that shipments being consolidated into one freight container may contain materials from more than one offeror, with each providing a separate emergency response telephone number and that many less-than-truckload (LTL) carriers create manifests or delivery receipt documents that provide the original offeror's name and emergency response contact information. COSTHA states that to create shipping documents to include the offerors' name or contract number registered with the ERI provider would be confusing to emergency personnel and create more errors.

With respect to multiple shipments being consolidated into one freight container, currently, when more than one emergency response telephone number is needed for consolidated hazardous materials, the various emergency response telephone numbers are required to be noted following the applicable shipping descriptions. We do not agree that the addition of registrant information in association with the applicable telephone number will create confusion.

Veolia is supportive of the rulemaking, but requests that when the offeror noted on the shipping paper is the registrant of the ERI provider, no need exists to reenter the offeror's name near the emergency response telephone number. Similarly, DGAC states its assumption that the offeror's identity is not required to be repeated if the identification is noted ''elsewhere'' on the shipping document, particularly with international shipments.

We continue to be concerned that if the registrant with an ERI provider is not clearly identified, the nexus between the registrant and the provider will be lost. However, we agree with the commenters that if the registrant is *prominently, clearly and readily identified* elsewhere on the shipping paper—*e.g.*, the offeror listed on the shipping paper is also the registrant and clearly identified—then the registrant need not also be listed in association with the emergency response telephone number. Subsequent entities in the transportation chain (carriers, freight forwarders, *etc.*) that prepare new shipping papers must ensure that the name or the contract number of the original offeror, if that offeror's ERI telephone number remains in effect, is provided in association with the emergency response telephone number, unless prominently identified elsewhere.

CHEMTREC states that precious time is lost when the caller on the scene of an incident is having trouble identifying the registered offeror because of the lack of uniformity of the information on shipping papers. CHEMTREC also comments (and we agree) about the necessity of taking care when preparing new shipping papers with regard to ensuring that the name or contract number is not inadvertently altered, which can create problems and delays in correctly identifying the registered offeror. We received complaints that the telephone number is also difficult to quickly identify when its positioning on the shipping paper is located near other text in a manner that blends the telephone number with other text (such as when using small, difficult-to-read

font size), thereby rendering the number difficult to locate and/or to read.

Based on the comments received concerning the necessity of a standard format for the registrant information, we are revising the regulatory text to read that the identification of the registrant of the emergency response telephone number provider must be placed immediately before, after, above or below the telephone number, unless the registrant is prominently, clearly and readily identified elsewhere on the shipping paper as discussed earlier in this preamble. This should provide sufficient flexibility for the creation of a shipping paper while ensuring that the registrant is clearly identified. In addition, considering the exception being incorporated in this final rule and based on the comments specific to being unable to quickly identify the registered offeror as well as identify and easily read the telephone number itself, we are revising the regulatory text by clarifying the meaning of ''clearly visible'' and ''prominently, clearly and readily identifiable'' in § 172.604(a)(3)(ii) and (b)(2), respectively. We are making this clarification so that there is no question as to the intent of the requirement, including that it encompasses the readability of the information (registered offeror and telephone number), as well as the location.

F. International Access Codes

Several commenters request clarification in the regulatory text regarding the use of international emergency response telephone numbers. DGAC suggests an expansion of the text to make clear that the international access code, country code and city code must be included when the emergency response telephone number is an international call. We agree and in this final rule have revised the regulatory text in § 172.604(a) accordingly. Additionally, we are adding the use of the ''+'' (plus) sign, which we understand is already commonly used in international commerce, as an option to noting the specific international access code. Each country has an international access code used to dial out of the country and a country calling code used to dial into a country. Generally, the international access code is replaced with a ''+'' (plus) sign for telephone numbers published for international calling. The plus sign is a universal prefix and means that the caller must use the specific prefix assigned to his or her country. Many telephones allow the plus sign to be entered, although the method may vary. For example, most GSM (global system for mobile communications) mobile phones allow the plus sign to be entered by either holding the ''0'' (zero) key or striking the ''*'' (asterisk) key twice; the plus sign is automatically converted to the correct international access code.

UPS asks whether requiring country and city codes prohibits the use of a toll-free telephone number. This requirement does not prevent the use of a toll-free telephone number, provided an emergency responder can dial the number as it appears on the shipping paper without stopping to look up international access, country and city codes, and provided the toll-free telephone number meets the requirements in Subpart G of Part 172, including the current requirement in § 172.604(a)(2) that specifies a telephone number may not entail a call back (such as an answering service, answering machine, or beeper device) and identity provision adopted in this final rule.

G. Notification of the Pilot-in-Command

UPS is concerned that the requirements for the Notification of Pilot-in-Command (NOTOC) contains ''extraneous'' information and cites a petition for rulemaking (P–1487) in which UPS requests a thorough review of the NOTOC requirements. We will address the UPS petition in a future rulemaking.

H. Costs and Time Needed To Implement

Some commenters believe that the provision in this final rule will impose significant costs and be difficult and time consuming to implement for carriers and offerors. UPS states that the requirement will impact: (1) The design of shipping papers by impinging on scarce available space, (2) the programming of computer systems by requiring reprogramming of countless systems used to print the information, (3) communication protocols between UPS's customers and UPS's internal systems, and (4) enforcement protocols used by inspectors. UPS estimates its costs will be between $1 million to $1.5 million and entail 40—60 weeks of work to make the change. UPS states that programming resources will need to be allocated and system changes will need to be tested. COSTHA requests a review of expenses associated with adopting the requirement and an extension of the compliance date if we proceed with the final rule.

We disagree with the commenters who state that the adoption of the revision to the HMR would be too costly and time consuming to implement. The emergency response telephone number is currently required on shipping papers. Adding a notation to identify the person who contracted with the ERI provider and reprogramming the shipping papers should not add the significant time and cost to the degree these commenters suggest. Also, it is our understanding that the notation for the identity of the person registered with an ERI provider is currently relatively common industry practice. The costs associated with this rulemaking are considerably outweighed by the safety benefits resulting from faster and more efficient responses to accidents and emergencies. Moreover, the final rule will reduce transportation delays incurred when emergency responders must spend time to obtain product specific information.

UPS and Fed Ex request a two-year extended compliance date. We believe the revision in this rulemaking addresses a critical safety issue and that a two-year extended compliance date is an excessive amount of time to implement the notation on shipping papers. However, to minimize costs associated with reprogramming computer systems and implementing the notation, we agree to provide an extended compliance date until October 1, 2010 to minimize the costs for those businesses that have not already incorporated the identity of the emergency response telephone number provider's registrant into their shipping paper format. A one-year extended compliance date will also allow sufficient time to include this revision into training programs, complete changes to systems supporting shipping papers, and deplete current stocks of shipping papers if necessary.

UPS asked that the revisions in this final rule be made effective at the same time as the next publication of the International Civil Aviation Organization's (ICAO) Technical Instructions for the Safe Transportation of Dangerous Goods by Air (ICAO Technical Instructions). We plan to submit the revision for US Variation 12 (emergency response telephone number) to ICAO before its next publication, which is scheduled to be effective on January 1, 2010.

I. Editorial Correction and Additional Revisions

UPS asked us to explain our reason for deleting the word ''or'' in § 172.604(a)(3)(i). The proposed deletion was an error and has been corrected in this final rule.

ASA and UPS state that the wording in § 172.201(d) is not consistent with the ''fuller requirement'' in § 172.604(b) and request that we repeat the § 172.604(b) text in § 172.201(d). UPS' objection is that in the NPRM,

§ 172.201(d) referred to identification of the ''person'' and did not reference ''or contract number.'' The proposed § 172.201(d) clearly stated: ''* * * a shipping paper must contain an emergency response telephone number and, if utilizing an emergency response information telephone number service provider, identify the person who has a contractual agreement with the service provider, *as prescribed in subpart G of this part.*'' Identifying the person in accordance with Subpart G is a clear statement and consistent with the treatment of references throughout the HMR. Repeating the particulars is redundant, but in this final rule we are adding a parenthetical ''(by name or contract number)'' following the word ''person.''

VOHMA requests that we revise § 174.26 to clarify that the requirement to include the identifying information adopted in this final rule applies. We have made the clarification.

IV. Rulemaking Analyses and Notices

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is not a significant regulatory action under section 3(f) of Executive Order 12866 and was not reviewed by the Office of Management and Budget. This proposed rule is a non-significant rule under the Regulatory Policies and Procedures of the Department of Transportation [44 FR 11034].

The amendments in this final rule should not result in significant costs to add the required information to shipping papers. The emergency response telephone number is currently required on the shipping paper. Adding a notation to identify the person who arranged with an ERI provider should not add any significant time to the process of completing a shipping paper or to the cost of providing it. Moreover, the notation on a shipping paper of the identity of the person who made arrangements with an emergency response information telephone service is currently common industry practice for the initial offeror. Additionally, we are providing an exception from the requirement where the name of the initial offeror is prominently and clearly shown elsewhere on the shipping paper.

As discussed earlier in this preamble, UPS estimates that it will incur costs between $1 million to $1.5 million and entail 40–60 weeks of work to make the change. UPS asserts that programming resources will need to be allocated and the system changes will need to be tested. We recognize that the provisions of this final rule will result in additional compliance costs. Therefore, we are adopting a one-year transition period for offerors and carriers to implement the changes adopted in this final rule. This extended transition period will help to offset costs by providing ample time for offerors and carriers to modify systems and otherwise adapt their processes by implementing the changes during a phase-in mode. Such a phase-in implementation method will afford offerors and carriers the opportunity to incorporate the revision into training programs and complete changes to systems supporting shipping papers (and deplete current stocks of shipping papers if necessary) during a period of time that may coincide with scheduled training programs and routine or upcoming upgrades and revisions to computer systems.

As a further note, considering that the notation is already relatively common industry practice for the initial offeror, and considering that we are also providing an exception from the requirement (which was not included in the NPRM), the implementation of the revision will not be applicable to the greater numbers of responsible parties as presented in the NPRM.

Given the importance of complete and detailed information to swift and effective response to hazardous materials incidents and mitigation of the potentially harmful consequences of those incidents, we believe the benefits of the provisions of this final rule will substantially outweigh the costs that may result. The benefits include saving lives, preventing injuries, avoiding damage to property and the environment, averting costly cleanup, evacuations, closures (such as roads and businesses) and damage mitigation, and reducing associated transportation delays. The availability of accurate, complete and quickly obtained information significantly improves response efforts during transportation incidents and emergencies, and benefits offerors, carriers, emergency personnel and the public.

B. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria set forth in Executive Order 13132 (''Federalism''). This final rule will preempt State, local and Indian Tribe requirements but will not have substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazmat law contains an express preemption provision (49 U.S.C. 5125(b)), preempting State, local, and Indian Tribe requirements on covered subjects, as follows:

(1) The designation, description, and classification of hazardous materials;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;

(3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous materials; or

(5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This final rule addresses covered subject item (3) above and would preempt State, local, and Indian Tribe requirements not meeting the ''substantively the same'' standard. Federal hazmat law provides at section 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of a final rule and not later than two years after the date of issuance. The effective date of Federal preemption for this rule is 90 days from the publication date of this final rule.

C. Executive Order 13175

This final rule was analyzed in accordance with the principles and criteria set forth in Executive Order 13175 (''Consultation and Coordination with Indian Tribal Governments''). Because this final rule does not have Tribal implications, and does not impose substantial direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply.

D. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities unless the agency determines the rule is not expected to have a significant impact on a substantial number of small entities. In this case, although the requirements of this final rule will apply to a substantial number of small entities, none would

sustain significant economic impact as a result of the rule.

Identification of potentially affected small entities. Businesses likely to be affected by this final rule are persons who offer for transportation or transport hazardous materials in commerce, including hazardous materials manufacturers and distributors; freight forwarders, transportation companies, including air, highway, rail, and vessel carriers and hazardous waste generators.

Unless alternative definitions have been established by the agency in consultation with the Small Business Administration (SBA), the definition of ''small business'' has the same meaning as under the Small Business Act. Since no such special definition has been established, we employ the thresholds published by SBA for establishments that will be subject to the proposed amendments if adopted. Based on data for 2002 compiled by the U.S. Census Bureau, more than 95 percent of persons that would be affected by this rule are small businesses.

Related Federal rules and regulations. There are no related Federal rules or regulations governing the transportation of hazardous materials in domestic or international commerce.

Consideration of alternate proposals for small businesses. The Regulatory Flexibility Act directs agencies to establish exceptions and differing compliance standards for small businesses, where it is possible to do so and still meet the objectives of applicable regulatory statutes. In the case of hazardous materials transportation, it is not possible to establish exceptions or differing standards and still accomplish our safety objectives.

Conclusion. While the amendments in this final rule would apply to a substantial number of small entities, there will not be a significant impact on those entities. This final rule revises the HMR's emergency response telephone requirements to enable ERI providers and others providing such service to supply the required HMR emergency response information to first responders. The impact of this new requirement is not expected to be significant; the indication of the emergency response telephone number on shipping papers is a current requirement and the notation of the identity of the emergency response information telephone provider's registrant is currently common industry practice for the initial offeror. We are providing an exception that will include a number of offerors, and we are providing a one-year delayed compliance date. The problem, as discussed in the preamble of this rulemaking, primarily arises from subsequent carriers omitting the registrant's name when preparing new shipping papers for a shipment continuing on to its final destination. Our amendment to add the identification of the telephone number's registrant to shipping papers will eliminate an obstruction that could interfere with the transmission of crucial emergency response information to first responders on the scene of an incident. Additionally, the amendment will serve to eliminate delays in transportation due to lack of information, and eliminate enforcement problems stemming from possible invalid emergency response telephone number violations.

This final rule has been developed in accordance with Executive Order 13272 (''Proper Consideration of Small Entities in Agency Rulemaking'') and DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts of draft rules on small entities are properly considered.

E. Paperwork Reduction Act

By requiring that additional information be included on certain shipping papers, this final rule may result in an increase in annual paperwork burden and costs under OMB Control No. 2137–0034. PHMSA currently has an approved information collection under OMB Control Number 2137–0034, ''Hazardous Materials Shipping Papers and Emergency Response Information'' expiring on May 31, 2011.

Under the Paperwork Reduction Act of 1995, no person is required to respond to an information collection unless it has been approved by OMB and displays a valid OMB control number. Section 1320.8(d), Title 5, Code of Federal Regulations requires that PHMSA provide interested members of the public and affected agencies an opportunity to comment on information and recordkeeping requests.

This notice identifies a revised information collection request that PHMSA submitted to OMB for approval based on the requirements in this final rule. PHMSA has developed burden estimates to reflect changes in this final rule. PHMSA estimates that the total information collection and recordkeeping burden, including the revisions resulting from this final rule, would be as follows:

OMB Control No. 2137–0034

Annual Number of Respondents: 250,000.

Annual Responses: 260,000,000.

Annual Burden Hours: 6,609,167.

Annual Costs: $6,675,258.67.

Requests for a copy of this information collection should be directed to Deborah Boothe or T. Glenn Foster, Office of Hazardous Materials Standards (PHH–10), Pipeline and Hazardous Materials Safety Administration, 1200 New Jersey Avenue, SE., East Building, 2nd Floor, PHH–10, Washington, DC 20590–0001, Telephone (202) 366–8553.

F. Unfunded Mandates Reform Act

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $120.7 million or more to either State, local or Tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of the rule.

G. Environmental Assessment

The National Environmental Policy Act (NEPA), §§ 4321–4375, requires Federal agencies to analyze proposed actions to determine whether the action will have a significant impact on the human environment. The Council on Environmental Quality (CEQ) regulations order Federal agencies to conduct an environmental review considering (1) the need for the proposed action, (2) alternatives to the proposed action, (3) probable environmental impacts of the proposed action and alternatives, and (4) the agencies and persons consulted during the consideration process. 40 CFR 1508.9(b).

Purpose and Need. As discussed elsewhere in this preamble, we have become aware of a number of problems associated with emergency response telephone numbers on shipping papers, specifically related to the increasing use by offerors of ERI providers to comply with the requirements of § 172.604. In such situations, the original offeror enters into a contract or agreement with an agency or organization (industry associations may offer this service to their members) accepting responsibility for providing detailed emergency response information in accordance with § 172.604(b). The telephone number on the shipping paper is the telephone number of the ERI provider, but the original offeror is not required to include a notation to this effect on the shipping paper, nor is the name of the original offeror required to appear on the shipping paper. Thus, the identity of the person who arranged with the ERI provider is not readily available through shipping documentation. Without the name of the offeror who arranged for an

emergency response service, an ERI provider may not be able to communicate the product-specific information that was provided by the original offeror. This could result in a serious problem if transportation workers or emergency response personnel must use the telephone number to request assistance in handling an accident or emergency. Most ERI providers will attempt to provide assistance whether or not they can verify that an offeror arranged for emergency response service. However, without the identification of the particular offeror who has made arrangements with the service, it may not be possible for the emergency response service to quickly access information specific to the material involved in an incident, thereby defeating the purpose of the requirement in § 172.604 to enable transport workers and emergency response personnel to expeditiously obtain detailed information about a hazardous materials shipment. A delay or improper response due to lack of accurate and timely emergency response information may place emergency response personnel, transportation workers, and the general public at increased risk. Expeditious identification of the hazards and direction for appropriate clean up associated with specific hazardous materials is critical in mitigating the consequences of hazardous materials incidents.

Alternatives. PHMSA considered the following alternatives:

No action—Under this alternative, we would continue to permit shippers to provide an emergency response telephone number for an ERI provider with no indication of the entity that arranged for the ERI provider's services. This alternative does not address the identify safety problem. Thus, it was not selected.

Require the shipping paper to include the name or contract number of the person arranging for the ERI provider's services—Under this alternative, we would require a shipper who utilizes an ERI provider to comply with the provisions of § 172.604 to include his name or contract number so that the ERI provider can readily retrieve and provide shipment-specific information in the event of an accident or emergency. This will allow for faster, more efficient emergency response to incidents. This is the selected alternative.

Analysis of Environmental Impacts. Hazardous materials are substances that may pose a threat to public safety or the environment during transportation because of their physical, chemical, or nuclear properties. The hazardous material regulatory system is a risk management system that is prevention-oriented and focused on identifying a safety hazard and reducing the probability and quantity of a hazardous material release. Hazardous materials are categorized by hazard analysis and experience into hazard classes and packing groups. The regulations require each shipper to classify a material in accordance with these hazard classes and packing groups; the process of classifying a hazardous material is itself a form of hazard analysis. Further, the regulations require the shipper to communicate the material's hazards through use of the hazard class, packing group, and proper shipping name on the shipping paper and the use of labels on packages and placards on transport vehicles. Thus the shipping paper, labels, and placards communicate the most significant findings of the shipper's hazard analysis. A hazardous material is assigned to one of three packing groups based upon its degree of hazard—from a high hazard Packing Group I to a low hazard Packing Group III material. The quality, damage resistance, and performance standards of the packaging in each packing group are appropriate for the hazards of the material transported.

Releases of hazardous materials, whether caused by accident or deliberate sabotage, can result in explosions or fires. Radioactive, toxic, infectious, or corrosive hazardous materials can have short- or long-term exposure effects on humans or the environment. Generally, however, the hazard class definitions are focused on the potential safety hazards associated with a given material or type of material rather than the environmental hazards of such materials.

Under the HMR, hazardous materials may be transported by aircraft, vessel, rail, and highway. The potential for environmental damage or contamination exists when packages of hazardous materials are involved in accidents or en route incidents resulting from cargo shifts, valve failures, package failures, loading, unloading, collisions, handling problems, or deliberate sabotage. The release of hazardous materials can cause the loss of ecological resources and the contamination of air, aquatic environments, and soil. Contamination of soil can lead to the contamination of ground water. For the most part, the adverse environmental impacts associated with releases of most hazardous materials are short-term impacts that can be reduced or eliminated through prompt clean-up/decontamination of the accident scene.

The amendments in this final rule will improve the effectiveness of the HMR by enabling emergency responders on the scene of a hazardous materials incident to quickly and efficiently identify hazards and mitigate potential risks to the environment. There are no significant environmental impacts associated with amendments in this final rule.

Consultation and Public Comment. As discussed above, PHMSA published an NPRM to solicit public comments on our proposal. A total of 23 persons submitted comments, including industry associations, shippers, carriers, ERI providers, emergency responders, and private citizens.

H. Privacy Act

Anyone is able to search the electronic form of any written communications and comments received into any of our dockets by the name of the individual submitting the document (or signing the document, if submitted on behalf of an association, business, labor union, *etc.*). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78), which may also be found at *http://dms.dot.gov*.

List of Subjects

49 CFR Part 172

Education, Hazardous materials transportation, Hazardous waste, Labeling, Markings, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 174

Hazardous materials transportation, Radioactive materials, Rail carriers, Railroad safety, Reporting and recordkeeping requirements.

Issued in Washington, DC, on October 6, 2009 under authority delegated in 49 CFR part 1.

Cynthia Douglass,

Acting Deputy Administrator.

[FR Doc. E9–24799 Filed 10–16–09; 8:45 am]

BILLING CODE 4910–60–P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 171, 172, 173, 174, and 178

[Docket No. PHMSA–06–25736 (HM–231)]

RIN 2137–AD89

Hazardous Material; Miscellaneous Packaging Amendments

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Final rule.

SUMMARY: In this final rule, PHMSA is amending packaging requirements in the Hazardous Materials Regulations to enhance compliance flexibility, improve clarity, and reduce regulatory burdens. Specifically, we are revising several packaging related definitions; adding provisions to allow more flexibility when preparing and transmitting closure instructions, including conditions under which closure instructions may be transmitted electronically; adding a requirement for shippers to retain packaging closure instructions; incorporating new language that will allow for a practicable means of stenciling the "UN" symbol on packagings; and clarifying a requirement to document the methodology used when determining whether a change in packaging configuration requires retesting as a new design or may be considered a variation of a previously tested design. This final rule also incorporates requirements for construction, maintenance, and use of Large Packagings.

DATES: *Effective Date:* October 1, 2010.

Voluntary Compliance Date: Compliance with the requirements adopted herein is authorized as of March 4, 2010. However, persons voluntarily complying with these regulations should be aware that appeals may be received and as a result of PHMSA's evaluation of these appeals, the amendments adopted in this final rule may be revised accordingly.

FOR FURTHER INFORMATION CONTACT: Eileen Edmonson, Office of Hazardous Materials Standards, (202) 366–8553, or Ben Moore, Office of Hazardous Materials Technology, (202) 366–4545; Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., Washington, DC 20590–0001.

SUPPLEMENTARY INFORMATION:

I. Background

On September 1, 2006, we published a notice of proposed rulemaking (NPRM) under Docket HM–231 (71 FR 52017) that proposed to: (1) Revise, remove, and add definitions specific to packaging requirements; (2) amend import and export provisions to require plastic single and composite non-bulk packagings containing Division 6.1 material to be marked "POISON" in conformance with § 172.313(b); (3) revise certain § 172.101 Table entries for packaging requirements; (4) add and revise certain special provisions to authorize the transportation of certain hazardous materials in Large Packagings; (5) clarify shippers' responsibilities for complying with packaging standards; (6) clarify requirements for stacking of bulk packages; (7) correct an error in provisions applicable to intermediate bulk container (IBC) requirements related to gauge pressure; (8) authorize the transportation of bromine residue in cargo tanks; (9) clarify requirements applicable to closure instructions for specification packagings; (10) add exceptions for marking of steel drums; (11) add an exception to permit marking of the UN symbol on specification packagings with a stencil; (12) amend general requirements for the use of certain packaging variations; and (13) add standards and provisions for the manufacture and use of Large Packagings.

Twenty-four persons submitted comments on the NPRM. Most supported adoption of the proposals in the NPRM. Negative comments were generally focused on issues related to record retention of closure instructions, documenting methodologies utilized to determine whether packaging variations achieve an equivalent level of performance to already tested packaging configurations, and the definitions proposed for bulk and non-bulk packaging.

The comments may be reviewed at *http://www.regulations.gov.* For convenience, a list of the commenters is provided below.

Name/company	Date of letter or when received	Document No.
Kathryn W. Pacha	09/05/2006	PHMSA–2006–25736–2
Georgia Department of Public Safety	09/25/2006	PHMSA–2006–25736–3
Regulatory Resources, Inc. (RRI)	10/06/2006	PHMSA–2006–25736–4
Frits Wybenga	10/09/2006	PHMSA–2006–25736–5
European Chemical Industry Council (CEFIC)	10/24/2006	PHMSA–2006–25736–6
The Dangerous Goods Advisory Council (DGAC)	10/26/2006	PHMSA–2006–25736–7
North American Automotive Hazmat Action Committee (NAAHAC)	11/16/2006	PHMSA–2006–25736–8
Kurt Colborn	11/22/2006	PHMSA–2006–25736–9
National Association of Chemical Distributors (NACD)	11/22/2006	PHMSA–2006–25736–10
The Chlorine Institute, Inc	11/22/2006	PHMSA–2006–25736–11
HMT Associates L.L.C	11/21/2006	PHMSA–2006–25736–12
Air Products and Chemicals, Inc. (Air Products)	11/29/2006	PHMSA–2006–25736–13
American Trucking Associations (ATA)	11/30/2006	PHMSA–2006–25736–14

Name/company	Date of letter or when received	Document No.
U.S. Department of Energy (DOE)	11/30/2006	PHMSA–2006–25736–15
Crop Life America (CropLife)	11/27/2006	PHMSA–2006–25736–16
C. L. Smith Company	11/30/2006	PHMSA–2006–25736–17
Flexible Intermediate Bulk Container Association (FIBCA)	11/30/2006	PHMSA–2006–25736–18
Reusable Industrial Packaging Association (RIPA)	11/27/2006	PHMSA–2006–25736–19
Charles E. Tudor, CP–P/MH	11/28/2006	PHMSA–2006–25736–20
Steel Shipping Container Institute (SSCI)	11/29/2006	PHMSA–2006–25736–0022
American Promotional Events, Inc. (APE)	11/30/2006	PHMSA–2006–25736–23
Greg McCanless	10/12/2007	PHMSA–2006–25736–24

On December 1, 2006, we published a correction to the NPRM to correct mathematical calculations under the Paperwork Reduction Act section of the rulemaking. The revision changed the total number of annual respondents from 5,000 to 5,010, and the total number of annual responses from 15,000 to 15,500 for OMB Control No. 2137–0572.

This final rule is designed primarily to enhance safety, clarify specific packaging regulations and to ease and enhance compliance by incorporating changes into the HMR based on PHMSA's own initiative and petitions for rulemaking submitted in accordance with 49 CFR 106.95. We are also adding two new subparts to Part 178—Subpart P–Large Packaging Standards, and Subpart Q–Testing of Large Packagings—to facilitate the use of these packagings.

In this final rule, we are amending the HMR to:

1. Revise the definitions for "Bulk packaging" and "Large packaging" to allow intermediate forms of containment and add a definition for "Strong outer packaging" for consistency and clarity when shipping in non-specification packaging.
2. Revise § 172.101 Table entries to authorize the use of Large Packagings for certain explosives, and revise packaging requirements for "Azodicarbonamide" and "Isosorbide-5-mononitrate."
3. Add and revise special provisions to facilitate the use of Large Packagings.
4. Clarify shippers' responsibilities regarding package closure instructions and electronic transmission, and add new requirements regarding retention and other exceptions.
5. Clarify shippers' responsibilities to comply with the HMR's packaging standards, and to document the method used when determining whether a change in packaging configuration requires retesting as a new design or may be considered a variation of a previously tested design.
6. Correct an error in general IBC requirements related to pressure limits.
7. Authorize the transportation of bromine residue in cargo tanks.
8. Revise requirements applicable to closure instructions to permit manufacturers additional flexibility when preparing and transmitting them.
9. Permit stenciling of the UN symbol on specification packagings.
10. Add new Subparts P and Q to Part 178 to authorize the manufacture, testing, and use of Large Packagings.

This final rule also implements several revisions proposed in the NPRM based on six petitions for rulemaking:

Name/company	Date of letter or when received	Document No.	Petition No.
Monsanto-The Agricultural Group	04/16/1993	PHMSA–RSPA–1993–12657–0001	P–1173
Steel Shipping Container Institute	05/20/1997	PHMSA–RSPA–2002–13401–0001	P–1337
The Association of Container Reconditioners	05/20/1998	PHMSA–RSPA–1998–12610–0001	P–1359
Steel Shipping Container Institute	01/26/1999	PHMSA–RSPA–2002–13401–0001	P–1371
Arch Chemicals, Inc	10/01/2002	PHMSA–RSPA–2002–14130–0002	P–1431
Dangerous Goods Advisory Council	04/19/2005	PHMSA–2005–21091–0001	P–1455

The petitions are discussed in more detail in the appropriate sections of this preamble. Each of these petitions may be viewed at *http://www.regulations.gov* in the docket for this rulemaking.

II. Provisions Adopted in This Final Rule

Following is a discussion of the comments we received in response to the 2006 NPRM and a detailed explanation of the provisions we are adopting in this final rule.

A. Definitions

Section 171.8 contains the general definitions and section references that apply to the HMR. In the NPRM, we proposed to revise the definitions in this section for bulk, non-bulk, and large packaging; remove the definition for strong outside container; and add definitions for reconditioned, remanufactured, and strong outer packagings.

Bulk and Non-bulk Packaging. In the NPRM, we proposed to revise the definitions for "Bulk packaging" and "Non-bulk packaging" based on the particular packaging specification at issue and volumetric capacity. The proposed changes were prompted by a petition from Monsanto Company (P–1173) and designed to make the definitions easier to understand. In the NPRM, we proposed to remove the maximum net mass and water capacity limits from these definitions and replace them with requirements that emphasize packaging type and the performance-oriented packaging standards of Subparts C, L, and M of 49 CFR Part 178, as applicable. We proposed these changes to clarify the current definitions, eliminate confusion, and enhance voluntary compliance. We did not intend to change the quantity thresholds in the HMR for bulk or non-bulk packagings.

The majority of commenters object to the proposed changes. The commenters have the following concerns:

1. *Applicability of the proposed definitions to cylinders.* Three commenters (the NACD, The Chlorine Institute, Inc., and Air Products) suggest that the proposed definition for "bulk packaging" could be interpreted to cover the DOT 3AX, 3AAX, and 3T bulk cylinders. In its comments, NACD states

that these containers have traditionally been considered non-bulk packagings and have been handled as such without safety problems. All three commenters are concerned that this "re-definition" will adversely affect the transportation of many compressed gases and could result in the application of regulatory requirements specific to the transportation of bulk packages to transporters of larger chlorine cylinders, essentially eliminating a common transportation method for transporting DOT 3AAX cylinders by highway. The commenters also contend that this change would place a substantial burden on shippers and users of chlorine with no safety justification because historically these packagings have had few problems in transportation.

2. *Applicability of the proposed definitions to RAM.* The U.S. Department of Energy (DOE) is strongly opposed to a bulk/non-bulk distinction with regard to radioactive materials (RAM) packaging. DOE states that packaging requirements for RAM have historically been based on risk and containment only, without consideration for volume. DOE also cites a previously issued interpretation that stated that RAM packagings are generally considered non-bulk (Reference Number: 01–0153). DOE is specifically concerned with the implications of bulk venting requirements and the removal of the restriction on intermediate forms of containment in bulk packagings. DOE is further concerned that current requirements restricting the venting of bulk packagings would prevent necessary venting of certain RAM packagings if they are classed as "bulk."

3. *Volumetric capacity limits and Harmonization with United Nations (UN) Model Regulations.* Nine commenters state that the non-bulk packaging definition should be based on UN Model Regulations (*i.e.,* no volumetric limit for solids). These commenters assert that use of the UN Model Regulations allows non-bulk packagings with volumetric capacities greater than 450 liters (119 gallons) provided the weight does not exceed 400 kg (882 pounds). Generally, the commenters assert that the lack of harmonized definitions places U.S. companies at a competitive disadvantage and appears to provide no safety benefits, while a harmonized standard would promote flexibility and cost-effectiveness. The RIPA agrees it may be beneficial to harmonize with the international requirements, but believes all the consequences of such a change should be considered more fully in a separate rulemaking.

4. *Necessity of definitions.* Two commenters (DGAC and APE) state the definitions for bulk and non-bulk packaging should be removed from the HMR. In its comments, DGAC states that the delineation is arbitrary and that the terms no longer serve a useful purpose in regulation. APE states these terms are not used in international regulations, and in its experience using these terms is detrimental to U.S. industry and offers no safety benefits.

On the other hand, Kathryn W. Pacha states "Removal of the volumetric requirement from the definition could make the application of markings, labels, and placards more confusing and not less." Ms. Pacha supports the volumetric limit in the current version of the HMR and stated in her comments: "From the perspective of emergency responders, if a package looks big, it should be communicated as "big" since communication requirements are for emergency responders." RIPA also opposes removing the volumetric limits in the HMR for bulk and non-bulk packagings because it finds the proposed definitions more confusing than the originals, and believes without these volumetric definitions the distinction between IBCs and drums could disappear.

Based on the overwhelming opposition to the proposed definitions for "bulk packaging" and "non-bulk packaging," we are not adopting the proposed definitions in this final rule. Packaging manufacturers and shippers should be aware that packagings with a volumetric capacity greater than 450 liters (119 gallons) as a receptacle for a liquid, both a maximum net capacity greater than 450 L (119 gallons) and a maximum net mass greater than 400 kg (882 pounds) as a receptacle for a solid, and a water capacity greater than 454 kg (1,000 pounds) as a receptacle for a gas are bulk packagings under the HMR regardless of the weight or volume of the hazardous material contained therein. *See* § 171.8. We want to emphasize for packaging manufacturers and shippers that the bulk packaging definition is based on the capacity of a packaging, not on the actual amount contained in the packaging at shipment. Thus, packagings with the bulk volumetric capacity mentioned earlier in this paragraph are bulk packagings for purposes of the HMR regardless of the weight or volume of the hazardous material contained therein.

In this final rule, we are removing the phrase "with no intermediate form of containment" from the definition of a "bulk packaging." Modifying the definition in this way clarifies that Large Packagings, which contain inner packagings, are considered bulk packagings for purposes of the HMR. Commenters did not oppose this change.

In conjunction with our proposal to revise the definitions for "bulk packaging" and "non-bulk packaging," we proposed to define standards for each specific non-bulk specification packaging type. We proposed to amend §§ 178.512 through 178.521 to specify volumetric capacity may not exceed 450 L (119 gallons) for the following packaging design types: aluminum boxes, natural wood boxes, plywood boxes, reconstituted wood boxes, fiberboard boxes, plastic boxes, woven plastic bags, plastic film bags, textile bags, and paper bags. The purpose was to eliminate uncertainty in determining if a package is a bulk package or a non-bulk package.

Commenters strongly oppose the revised definitions and the revisions to §§ 178.512 through 178.521. As discussed above, we are not adopting the proposed definitions for non-bulk and bulk packagings in this final rule. Similarly, we are not adopting the revisions proposed for §§ 178.512 through 178.521. However, packaging manufacturers and shippers should be aware that packagings with a volumetric capacity greater than 450 liters (119 gallons) are bulk packagings regardless of the weight of the hazardous material contained in the packaging.

Strong outside container and strong outer packaging. In the NPRM, we proposed to remove the definition for "strong outside container" and add a new definition for "strong outer packaging." Currently, the HMR use the terms "strong outside container," "strong outside packaging," and "strong outer packaging" interchangeably; however, there is no definition for "strong outer packaging" or "strong outside packaging" in § 171.8. Therefore, we proposed to remove the wording "strong outside container" and "strong outside packaging," add the language from the "strong outside container" definition to a new definition for "strong outer packaging," and add additional language to the new definition as follows:

Strong outside container vs. strong outer packaging	Current	Proposed
	Strong outside container means the outermost enclosure which provides protection against the unintentional release of its contents under conditions normally incident to transportation.	*Strong outer packaging* means the outermost enclosure which provides protection against the unintentional release of its contents. It is a packaging, which is sturdy, durable, and constructed so that it will retain its contents under normal conditions of transportation, including rough handling. In addition, a strong outer packaging must meet the general packaging requirements of subpart B of part 173 of this subchapter but need not comply with the specification packaging requirements in Part 178 of the subchapter. For transport by aircraft, a strong outer packaging is subject to § 173.27 of this subchapter.

Three commenters, RRI, the DGAC, and the NAAHAC, submitted comments in support of the proposed new definition. RRI and NAAHAC strongly support the new definition; however, they disagree with the use of the phrase "including rough handling" following the long-used phrase "normal conditions of transport" because it implies that rough handling is "normal." In the course of transportation, packages are handled in a manner that can be characterized as "rough." Rough handling is common and may occur any time a package is loaded or unloaded in a hurried manner, shifts while in a transport vehicle, or is dropped from a height of more than a few inches (*e.g.,* three inches). After further consideration, we have concluded that adding the phrase "including rough handling" is redundant and inconsistent with other HMR provisions that include the phrase "normal conditions of transportation." Therefore, in this final rule we are removing the phrase "including rough handling" from the definition proposed in the NPRM.

DGAC supports the new definition for "strong outer packaging" but questions the need to reference Subpart B of Part 173 and § 173.27. DGAC contends that most strong outer packagings are used to transport limited quantities, the regulatory requirements for which already reference Subpart B. The commenter is correct that the regulatory requirements applicable to limited quantity shipments already reference Subpart B. However, there are a number of instances in the HMR authorizing the transportation of certain classes and quantities of hazardous materials, other than limited quantities, in strong outer packagings. Including the references to Subpart B of Part 173 and § 173.27 in the definition for "strong outer packaging" will contribute to an increased level of regulatory compliance by cross-referencing the requirements that apply.

PHMSA notes none of the commenters objected to the interchangeable manner in which "strong outside container," "strong outside packaging," and "strong outer packaging" are currently used in the HMR. Although "strong outer packaging" is used the most in the HMR, to PHMSA's knowledge, the interchangeable use of this wording with strong outside container and strong outside packaging has resulted in little or no confusion to the shipper. Further, we believe that removing "strong outside container" and "strong outside packaging" from the HMR may cause confusion for the regulated community that may compromise safety, whereas adding the definition for "strong outer packaging" and a sentence at its end that states the three terms are interchangeable may clarify their meaning. Therefore, in this final rule we are adding a sentence to the end of the new definition for "strong outer packaging" in § 171.8 to clarify that "strong outside container" and "strong outside packaging" are synonymous in meaning with "strong outer packaging."

Remanufactured packaging, Reused packaging, and Reconditioned Packaging. Currently, the HMR define "remanufactured packaging," "reused packaging," and "reconditioned packaging" in § 173.28. In the NPRM, we proposed to add a reader's aid to § 171.8 to refer to the definitions for "remanufactured packaging" and "reconditioned packaging" in § 173.28. We did not propose a reference to "reused packaging" in the NPRM. RIPA supports the addition of the reader's aids for "remanufactured packaging" and "reconditioned packaging" in § 171.8, and suggests that PHMSA should also add a reference for "reused packaging" in § 171.8. We agree. In this final rule, we are adding a reference for "reused packaging" in § 171.8.

B. Plastic Packagings Used To Transport Poison Materials

Section 171.23 establishes conditions under which shippers may use the international standards as authorized by the HMR for shipments transported to, from, or within the United States. Arch Chemicals, Inc. ("Arch") petitioned PHMSA (P–1431) to amend this section to reference the marking requirement in § 172.313(b). Paragraph (b) of § 172.313 requires plastic single and composite non-bulk packagings containing Division 6.1 material to be marked "POISON." The purpose of this marking is to inform persons who may wish to re-use a packaging that previously contained a poisonous material that the packaging should not be used for foodstuffs because the poison may have permeated the packaging material. In its petition, Arch states that, because § 171.23 does not require compliance with § 172.313, import shipments need not have this marking, creating an inconsistency in the HMR. Thus, in the NPRM we proposed to require import and export shipments to be marked in accordance with § 172.313(b).

Several commenters, including Arch, oppose this proposal. Instead, they suggest that we eliminate the domestic marking requirement. Two commenters, Air Products and CropLife, state the term "poison" is not used in international regulations. CropLife further states it believes the United States should not require that "poison" be marked on foreign plastics that contain these types of materials without evidence the requirement will achieve measureable safety improvements. Commenters also state that the current requirements are outdated because newer plastics have been developed since § 172.313(b) was originally incorporated into the HMR. The newer plastics are designed so that they could be filled with a poison material, cleaned, and filled with a foodstuff safely.

In this final rule we are not adopting the proposed change due to overwhelming opposition to the proposal, including opposition from the original petitioner. Comments concerning elimination of the domestic marking requirement are beyond the scope of this rulemaking. PHMSA may consider revisions to the import-export requirements or a proposal to the UN as a future initiative.

The Dangerous Goods Advisory Council (DGAC) notes that PHMSA permits the use of the word "TOXIC" in the place of "POISON." We agree that TOXIC can be used in place of POISON throughout the HMR. Therefore, we are not revising § 172.313 in this final rule to clarify further that the HMR permit the word "TOXIC" to be used as an alternative to the word "POISON."

C. Revisions to the Hazardous Materials Table

The Hazardous Materials Table (HMT) in § 172.101 lists the proper shipping name, hazard class, and identification number that must be used to describe a hazardous material in transportation. In the NPRM, we proposed several minor amendments to the HMT related to packaging provisions. We received no comments on these proposals; therefore, we are adopting them as proposed in this final rule.

We are amending the entries for "Azodicarbonamide" and "Isosorbide-5-mononitrate." Because these materials pose similar hazards, they are best packaged in the same manner as Musk xylene (5-tert-Butyl-2,4,6-trinitro-m-xylene). We are changing their references for non-bulk packaging to § 173.223. To authorize the transportation of certain explosives in Large Packagings consistent with the UN Recommendations, several entries for explosives are revised to read "62" rather than "none" in Column (8c). We are also making editorial changes to the special provisions and vessel stowage requirements for these entries in the HMT.

As proposed in the NPRM, we are revising § 173.223 for consistency with the revised HMT entries for "Azodicarbonamide" and "Isosorbide-5-mononitrate." PHMSA received no comments on the language change proposed in the NPRM, and will adopt these provisions as proposed.

D. Exceptions for Shipments of Waste Materials

Section 173.12 establishes conditions for reuse of previously used packagings for the transportation of hazardous waste. The Association of Container Reconditioners (ACR) (P–1328) petitioned PHMSA to amend § 173.12(c). ACR states the minimum thickness criteria specified in § 173.28(b)(4) for the reuse of metal and plastic drums and jerricans should be applied to packagings reused for waste materials under the exception in § 173.12(c). ACR contends that hazardous waste packagings currently excepted under § 173.12(c) should be subject to minimum thickness criteria, and that the inclusion of § 173.12(c) is an oversight and was inadvertently incorporated into the HMR as part of Docket HM–181 (December 21, 1990; 55 FR 52401).

The exception in § 173.12(c) is not authorized for a packaging intended to be used more than two times (initial use and the return shipment of the waste product). A package may only be shipped under this exception once and must meet the following conditions: (1) It may only be transported by highway; (2) it must be loaded by the shipper and unloaded by the consignee or shipped by a private motor carrier; (3) the packaging may not be offered for transportation less than twenty-four hours after it is finally closed for transportation and; (4) each package must be inspected for leakage and found to be free from leaks immediately prior to being offered for transportation. If the packaging is subsequently reused, it will be subject to the minimum thickness requirements in § 173.28(b)(4). The significant restrictions of § 173.12(c) and the fact that the exception may only be used once per packaging make it unnecessary to require a shipper to comply with the minimum thickness criteria in § 173.28(b)(4). Therefore, we do not believe that the packages that comply with the restrictions in § 173.12(c) need to comply with the minimum thickness criteria in § 173.28(b)(4). We also do not believe that the costs associated with the impacts of both petitioners' requests are commensurate with the benefits and, therefore, in this final rule we are denying their petitions.

Citing safety as their concern, RIPA supports maintaining minimum thickness criteria for steel and plastic drums reused for one-time shipments of hazardous wastes under the waste exceptions in § 173.12. RIPA suggests that the uncertainty in characterizing these wastes warrants more stringent requirements for their packaging. We disagree. As we previously stated, based on the additional provisions that must be met in § 173.12(c), we concluded that there will be minimal, if any, additional safety benefit as a result of an additional minimum thickness requirement for this exception and there would be significant additional cost associated with the addition of such a requirement.

E. Packaging Closure Instructions

In accordance with § 178.2(c), a packaging manufacturer and subsequent distributors of the packaging must provide written instructions for assembling and closing the packaging so that it will maintain its integrity during transportation. However, this section does not specify how detailed the closure instructions must be or what they must include. Generally, we expect that the closure instructions will provide for a consistent and repeatable means of closure. For example, the manufacturer's closure instructions could specify a range of torque values applicable to the closure or a detailed closure method (*e.g.,* tighten the cap until the bottle contacts the cap gasket and then tighten an additional ¾ turn). Alternatively, the packaging and closure could be designed with a stop feature of other indexing to indicate how the cap should be tightened. The closure instructions should be consistent with the language in the packaging test report and written so the user is able to duplicate the closure method. In the NPRM, we proposed to add language to § 178.2(c) to clarify closure instruction requirements. The new language clarifies that any closure method is authorized provided that it is measurable and repeatable.

Several commenters express concern with this new language, suggesting that it is a significant, unnecessary, and potentially costly new requirement (RIPA); that it will be ineffective because closure failures, when they occur, are more likely the result of human error and not closing the package in accordance with the closure instructions (DGAC); and that it may not always be possible to employ a closure method that is "measurable" (FIBCA) or "repeatable" (RIPA).

Comments are not correct that the proposed language requiring packagings to be closed "in the same manner" as when the package design type was tested is a new requirement; this is a longstanding regulatory requirement. The proposed revision to this section was intended to clarify that packaging closure methods must be consistent and repeatable, but need not necessarily require instruments such as a torque wrench.

We are confident that manufacturers will be able to develop closure methods for all packagings that are both repeatable and measurable. The meaning of the term "measurable" will differ depending on the type of packaging. For example, on a bottle

"measurable" could be the torque setting on a torque wrench or the number of turns (or fraction thereof) past contact with a gasket. In the case of a flexible packaging, it could be the setting on a sewing device, type and grade of thread, the type of glue, the location where the tie-off is to be placed, or pressure settings on a sealing device. We agree that certain closure methods are not measurable in the sense that they cannot be quantified with a number and a unit of measure (*e.g.,* 25 inch-pounds).

In this final rule, we are revising § 178.2(c)(1)(ii) to clarify that closure instructions must provide for a repeatable means of closure consistent with the means of closure used for performance testing. This change is intended to provide additional flexibility to packaging manufacturers and allow for packagings with a simpler means of closure.

In addition, in this final rule we are amending § 178.2(c) to clarify that a packaging manufacturer may transmit the information required in this section, including closure instructions, using electronic means instead of or in addition to making a written notification. Such electronic means of notification may include emailed transmissions or transmission on a CD or other similar device. Permitting the use of electronic means to meet the notification requirements in this section provides manufacturers with additional flexibility and will reduce compliance costs. Note that if a manufacturer elects to utilize electronic measures to make the required notifications, he must make a positive notification—that is, he must email or transmit the information specific to the packaging in question and the transmission must be in a form that can be printed in hard copy by the person receiving the notification. Referring the person receiving the notification to a website for the required information is not acceptable.

In the NPRM, we proposed to revise the shipper's responsibilities in § 173.22(a)(4) to include a requirement to retain a copy of the packaging closure instructions provided by the packaging manufacturer. As proposed, a shipper would be required to retain closure instructions for at least 375 days. Current requirements specify that the person transferring the packaging to the shipper or distributor must furnish a copy of the closure instructions; however, there is no requirement for the shipper to retain the documentation.

A number of commenters (RIPA, DGAC, Mr. Frits Wybenga, Air Products, FIBCA, CropLife, and SSCI) oppose a requirement for shippers to retain packaging closure instructions. These commenters state the proposed requirement imposes a significant new record retention requirement without adequate justification or underlying data. RIPA states it "is unaware of any data or other evidence developed by DOT to support its proposal. In fact, it is quite probable that leaks from closures are more often the result of human error rather than the unavailability of adequate closure instructions." RIPA suggests that if the proposal is adopted, the record retention period should be limited to 365 days and shippers should be required to retain only one current copy of a manufacturer's closure notification. Several commenters questioned the safety benefit of retaining packaging closure instructions for 375 days.

Two commenters (DOE and NAAHAC) support the proposal to ensure that the necessary closure instructions and supporting test documents are available and used, but DOE's request that PHMSA clarify how this proposed requirement would apply to gas cylinders, cargo tanks, and portable tanks. DOE also requests that PHMSA simplify the retention requirement for variation packagings to keep document retention costs at a minimum. Air Products states precautionary labels exist on compressed gas cylinders that include closure instructions, and questions what benefit additional closure instructions would provide. NAAHAC requests that only the initial shipper be required to provide closure instructions and supportive documentation, if applicable, to the second user of the package. NAAHAC states "to require that all of this information be provided to and maintained by [each] subsequent shipper who has opened the package and is reusing it would place a significant burden on the industry." The NACD suggested, if a sufficient need can be demonstrated for retaining the closure instructions, that PHMSA require each shipper to retain an on-site master list of closure instructions and variations instead of those for each individual packaging to reduce the amount of paperwork.

Underlying our NPRM proposal to require shippers to retain packaging closure instructions was our belief that, in the absence of a regulatory requirement, most shippers retain closure instructions as a responsible business practice to ensure that employees know how to properly close a package. We, therefore, assumed that imposition of a regulatory requirement would result in only a minimally increased paperwork burden. However, the commenters indicate that retention of closure instructions is not a common practice.

We continue to believe that shippers should retain and utilize the closure instructions provided by packaging manufacturers to ensure these packagings, including those with variations, are properly prepared and closed for transportation. As we stated in the NPRM, a packaging may be filled and closed by a hazmat employee other than the individual who receives the manufacturer's packaging closure instructions. Moreover, a packaging may not be filled and closed for weeks or months after it has been sold or otherwise transferred to the shipper. In the absence of closure instructions, the shipper and its employees may not know how to properly close the package. Indeed, in its comments on proposed revisions to § 178.2(c) (discussed elsewhere in this preamble), DGAC states that closure failures, when they occur, are likely the result of not closing the package in an accordance with the closure instructions. Our incident data shows that the primary cause of incidents involving leakage from packages in transportation is improperly closed packages.

We agree that human error often results in leaks from closures, and we believe that use of accurate closure instructions will result in fewer instances of human error. A hazmat employee's ability to properly close a hazardous materials packaging is significantly compromised without the manufacturer's closure instructions. Retention of and adherence to the closure instructions will help to ensure hazardous materials packages are closed as the manufacturer intended, thereby reducing the possibility that these packages will leak or be breached during transportation. This will also provide consistency for training. There are many employees that do not perform hazardous material related functions daily, so on the occasion when they are requested to do so, having instructions to use as a guide will assist them with performing these tasks in conformance with the regulations. Therefore, we are retaining this requirement and, in response to the comments, are slightly reducing the number of days of retention to 365 and adjusting our estimates of the compliance burden, including the paperwork burden, to account for the fact that most shippers do not currently retain closure instructions.

We note that a shipper may retain closure instructions in a variety of ways that may prove cost effective. For example, a shipper may maintain closure instructions in an electronic

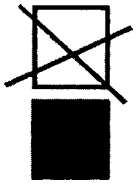
format or as part of a package of guidance material for hazmat employees who are responsible for filling and closing packagings. Further, the closure instructions need not be maintained in the precise format or wording provided by the manufacturer. If a shipper identifies a more effective way to communicate closure instructions to its hazmat employees—such as through graphical or pictorial depictions, step-by-step instructions, simplified wording, or similar methods—a shipper may do so provided the substance of the closure instructions is retained. The closure instructions should be retained in a format that will ensure that each hazmat employee responsible for closing the packaging to which the instructions apply understands the instructions and can apply them consistently. Therefore, in this final rule, we are adopting a requirement for shippers to retain packaging closure instructions provided by the packaging manufacturer for at least 365 days after offering the package for transportation. We are also adopting an exception from this requirement for closure instructions that are permanently embossed or printed on the packaging.

F. General Requirements for Bulk Packagings

In the NPRM, we proposed a new paragraph § 173.24b(e) to clarify that bulk packagings not designated and tested for stacking may not be stacked during transportation. In addition, we proposed adding language to clarify that bulk packagings intended for stacking may not have more weight superimposed upon them than what is marked on the packaging. Currently, the requirements in § 173.24b(e) apply to IBCs and Large Packagings only. *See* existing § 178.703(a)(1)(vii) and new § 178.903(a)(1)(vii) in this rule. The HMR require bulk packagings designed or intended to be stacked to meet stacking test requirements, either through performance testing specifically prescribed in the HMR or industry standards incorporated-by-reference into the HMR (see § 171.7). However, the HMR do not always require the maximum load that can be stacked on the packaging to be marked or indicated on the packaging in the same manner as it requires this information on IBC and Large Packagings. Adopting the language proposed in the NPRM for § 173.24b(e) may add additional testing, marking, and paperwork activities for some bulk packagings that were not previously considered under this rulemaking action or that may already be addressed under some other type of informational marking. Therefore, we are not revising existing § 173.24b(e) in this final rule. We will continue to examine this issue to determine if additional rulemaking action is necessary. The comments we received on this subject in response to this rulemaking will be taken under consideration if we develop a future rulemaking.

Air Products, ATA, CropLife, RIPA, and DGAC supported aligning the stacking requirements for IBC and Large Packagings with those the UN Subcommittee on the Transport of Dangerous Goods was considering at the time this NPRM was published, which included incorporating specific symbols to indicate if these packages could or could not be stacked during transportation. In December 2006, the UN Subcommittee adopted these symbols in the 15th edition of the UN Recommendations as a stacking mark for IBCs packagings only that are manufactured, repaired, or remanufactured on or after 1/1/2011. We've repeated the symbols here for your convenience. They are also located in the ATA's comments (PHMSA–2006–25736–0014).

IBCs not capable of being stacked



IBCs capable of being stacked (must include the maximum stacking weight):

In a final rule PHMSA issued on January 14, 2009, PHMSA incorporated these symbols for IBCs into § 178.703 of the HMR (see Docket Nos. PHMSA–2007–0065 (HM–224D) and PHMSA–2008–0005 (HM–215J); 74 FR 2200). This section requires manufacturers of IBC packagings that are manufactured, repaired, or remanufactured after 1/1/2011 to mark IBCs with the appropriate symbol, and for those that successfully pass the stacking test prescribed in § 178.815 to include the weight of material that may be safely stacked on the packaging as part of the stacking symbol and specification marking. A packaging not subjected to a stacking test must be marked to indicate that it may not be stacked. For example, the "0" in the second from last position of the following UN standard marking "UN51H/Z/06 04/USA/+ZT1235/*0*/500" indicates that the packaging must not be stacked. If a number greater than zero is in this same position in the marking, such as the number "250" in the following example "UN51H/Z/06 04/USA/+ZT1235/*250*/500," the package may be stacked provided the gross weight stacked upon it does not exceed this number in kilograms. Commenters on this provision in the Docket No. HM–215J rules stated the new stacking symbol is easier for carriers to recognize and understand.

The ATA strongly encourages PHMSA to communicate this stacking requirement to carriers, who often are responsible for loading hazardous materials packages. We have already begun incorporating information about these IBC stacking requirements in our training programs and materials. However, we have not determined at this time whether to require the IBC stacking capability symbols for Large Packagings. PHMSA may consider such action in a future rulemaking.

G. Reuse, Reconditioning, and Remanufacture of Packagings

In the NPRM, we proposed to clarify that packagings not meeting minimum thickness criteria may not be reconditioned or remanufactured. DGAC and RIPA strongly oppose this proposal. Both commenters state remanufactured packagings, such as drums and jerricans, should be treated as "new" packagings under the HMR. Since newly manufactured packagings are not subject to minimum thickness criteria, these commenters assert that remanufactured packagings also should not be subject to such criteria.

The commenters are correct that remanufactured packagings are filled and transported in the same manner as new packagings. For this reason, however, we believe it is critical for transportation safety that the packaging remanufacturer confirm that they are suitable for transportation. The minimum thickness criteria currently prescribed in § 173.28 are designed to prevent packagings with wall thicknesses that are too thin to safely perform their containment function from being reused, reconditioned, or remanufactured. The proposed revisions were intended to clarify that when a packaging no longer meets the minimum thickness criteria, it is no longer suitable for reconditioning or remanufacturing. However, we note that this provision applies to packagings

intended for reuse as well. Therefore, we are adopting the revisions as proposed and adding reused packagings to clarify that the minimum thickness provision applies to reused, reconditioned, and remanufactured packagings.

In § 173.35(h)(2), we are correcting an error in the pressure limitation for metal IBCs. Currently, paragraph (h)(2) prohibits the gauge pressure in a metal IBC from exceeding 110 kPa (16 psig) at 50 °C (122 °F), or 130 kPa (18.9 psig) at 55 °C (131 °F). Use of the term "gauge pressure" is an error. We are correcting this by changing the phrase "gauge pressure" to read "vapor pressure." We received no comments on this issue.

H. Packaging Marking Requirements for Drums

Under the HMR, DOT specification and UN standard packagings must be marked with their package specification markings as specified in §§ 178.3 and 178.503. Section 178.3(a) requires that the marking must appear on a non-removable component of the packaging. Section 178.3(a)(5) requires that packagings with a gross mass of 30 kg (66 pounds) or more must have their original or duplicate specification markings appear on the top or side of the packaging. Section 178.3(c) states a packaging that conforms to more than one DOT specification or UN standard may display each specification marking in its entirety at each location the markings appear provided the packaging meets the requirements for each standard or specification. Further, under § 178.503(a)(1), UN standard markings described in paragraphs (a)(1) through (a)(6) (*i.e.,* UN symbol, identification code, performance standard, specific gravity or mass, hydrostatic pressure, and year of manufacture) and (a)(9)(i) (*i.e.,* nominal thickness of packagings intended for reuse or reconditioning) must appear in a permanent form on the bottom of each new metal drum with a capacity greater than 100 L (26 gallons); however, the markings on the top, head or side of these drums need not be permanent.

SSCI petitioned PHMSA (P–1371) to modify the marking requirements under §§ 178.3(a)(5) and 178.503(a)(10) for packagings with a gross mass of more than 30 kg (66 pounds). In its petition, SSCI requests PHMSA change the HMR to allow the duplicate marking to be a lesser design standard than that marked on the bottom of the packaging. For example, a packaging would be tested and marked on the bottom as meeting the Packing Group I performance standard and the duplicate marking on the side would indicate that the packaging is certified to the Packing Group II performance standard. SSCI states some shippers will not accept a drum marked for PG I materials if they are shipping PG II or III materials. SSCI says the requested change would reduce the need to test drums differently for different customers, thereby reducing potential inventory problems and increasing flexibility for both manufacturers and shippers. PHMSA proposed the change in the NPRM to this rulemaking.

Several commenters, including RRI, DOE, and RIPA, opposed the proposal. These commenters state potential confusion could result from the presence of different performance standard markings that do not appear together in the same location on the same drum. RIPA notes that dual marking of drums in this manner would be confusing, particularly because RIPA states the "official" certification mark for drums is the top or side mark, not the bottom mark. Once a drum is filled and in transportation, RIPA states the only mark that need be accessed to determine compliance would be the side marking. Thus, the test data for the drum marked to the PG I standard on the bottom and the PG II or PG III standard on the side would be required to show that the drum passed the PG II or PG III performance tests, not the PG I test. Also, if the top and/or side marking is removed during reconditioning, RIPA suggests there is no way to accurately trace the standard to which the drum was originally manufactured.

A DOT specification or UN standard packaging must be marked as specified in §§ 178.3 and 178.503. Section 178.3(a) specifies that the marking of DOT specification or UN standard packagings shall be placed on a non-removable component of the packaging in an unobstructed area, and shall provide adequate accessibility. The HMR do not require markings to be placed in a specific location for non-bulk packages with a gross weight less than 30 kg (66 pounds). For packages with a gross mass of more than 30 kg (66 pounds), as prescribed in § 178.3(a)(5), the markings or a duplicate marking must appear on the top or side of the packaging. In accordance with § 178.503(a)(1), every new metal drum having a capacity of 100 L must bear the marks described in paragraphs (a)(1) through (a)(6) and (a)(9)(i) in a permanent form on the bottom. The markings on the top, head or side of these packagings need not be permanent. In addition, as specified in § 173.28(b)(4), metal and plastic drums and jerricans used as single packagings or the outer packagings of composite packaging more than once must be marked in a permanent manner (able to withstand the reconditioning process) with the minimum thickness of the packaging material.

In this final rule, we are not revising §§ 178.3(a)(5) and 178.503(a)(10) to allow a lesser design standard to be marked on the side or top than that required on the bottom. We agree with the objecting commenters that this change may result in confusion and this resulting confusion could impact safety, especially if the correct marking becomes separated from the container (*e.g.,* if a lid with the correct marking becomes separated from the container, the container is filled with a hazardous material that has a higher packing group rating than that marked on the side or top, or if a filled container is too heavy to read its highest performance rating marking on its bottom surface). Further, as stated earlier in this preamble, the HMR already permits DOT specification and UN standard packagings to bear more than one specification marking if the packaging meets the requirements of each design standard or specification, and these markings appear together and in their entirety at each location they are placed on the packaging. Section 178.503(c)(2) of the HMR permits a packaging that has been reconditioned to bear markings that identify a different performance capability than the original tested design type of the packaging, and these markings may even be different from those permanently marked on the bottom of a drum, but these markings may not identify a greater performance capability than the original tested design type. This provision permits the reconditioner to permanently downgrade a packaging (*e.g.,* an "X" rated PG I packaging to a "Y" PG II packaging) provided the new marking includes the reconditioner's mark. This practice does not apply to new packagings because dual marking for these packagings is already authorized under the HMR.

I. UN Symbol Marking

The Dangerous Goods Advisory Council (DGAC) petitioned PHMSA (P–1455; Docket PHMSA–2005–22474–2) to allow stenciling of the United Nations symbol (UN Symbol). The HMR do not currently prohibit stenciling of the UN symbol; however, the current marking requirements in § 178.503 discourage stenciling because they do not tolerate even small gaps in the circle surrounding the letters "u" and "n." The only way to stencil the UN symbol without leaving gaps in the circle is to use a two-step stenciling system. DGAC states that a two-step process introduces

variability, which often results in a smeared image. In the NPRM, we proposed revising § 178.503 paragraphs (a)(1) and (e)(1) to include an objective standard under which small gaps in the UN symbol are permitted. We proposed restricting the gaps to a size no greater than ten percent of the circumference of the circle and the number of gaps to no more than three to ensure that the symbol will remain readily identifiable.

Three commenters (RIPA, Charles E. Tudor, and SSCI) support the proposal. However, the commenters suggest that PHMSA adopt a more performance-based approach and permit a stenciled mark so long as it is legible and readily identifiable. Specifying the permissible number, size, and placement of gaps in the symbol allows any person to determine whether his or her stencil meets the standard without a case-by-case regulatory determination by PHMSA. Another commenter, the DGAC, recommends PHMSA adopt a similar approach to that of the UN Subcommittee, which considered stenciling the UN symbol mark acceptable without establishing any specific provisions on stenciling. The DGAC also supports adding language to permit a stenciled UN mark if it is identifiable from a normal reading distance, which it states can be implied from a letter of clarification PHMSA issued on another type of marking process when it was the Research and Special Programs Administration. If PHMSA does retain the regulatory language to permit stenciling, the DGAC recommends that the proposed requirements in paragraphs § 178.503(e)(1)(ii)(A) through (e)(1)(ii)(D) be removed.

In this final rule, we are adopting the proposal to permit the UN symbol to be stenciled on a packaging. In response to Charles E. Tudor's comments, we are modifying the proposed standard to allow four gaps in the circle, and we are adopting a total gap size no greater than 15 percent of the circumference of the circle to accommodate the fourth break in the circle. Consistent with this revision, in this final rule we are revising § 178.703 (a)(1)(i) to authorize stenciling of the UN symbol for IBCs.

J. Design-Type Variations

Current § 178.601(g)(1) provides exception "Variation 1" that allows a person to substitute an inner receptacle without additional testing to demonstrate compliance with the applicable performance standard if it can be determined that the substitute inner packaging, including its closure, maintains an equivalent level of performance as the originally tested package. The current requirements do not specifically require documentation of the methodology used to determine that a packaging maintains an equivalent level of performance. In the NPRM, we proposed to revise § 178.601(g)(1) to require the person making a change to a packaging design under the provisions of Variation 1 to document the methodology used to demonstrate equivalent performance.

Air Products and DGAC do not support the proposed amendment to document an equivalent level of performance. They both state the proposed text suggests that a detailed analysis would be required and that such a detailed analysis would negate the benefits currently derived from using the variation. DGAC states that it is not aware of any incidents stemming from substituted inner packaging under Variation 1. Air Products also states the proposed amendment will create disharmony with international standards and constitutes a significant increase in paperwork requirements. RIPA does not oppose the new requirement, but asks that PHMSA take steps to make sure the paperwork burden isn't substantial, and that existing combination packagings that are already authorized be grandfathered for compliance purposes.

NAAHAC strongly supports the proposed changes stating "This clarifies the process that the package designer/tester must use in certifying the packaging." The C. L. Smith Company supports PHMSA's proposed changes but suggests we provide more detailed guidance on how to determine whether or not a packaging meets the "equivalent level of performance" standard, especially for plastic inner packagings which vary widely in performance based on variations in the type and amount of ingredients used to make these packagings (*e.g.,* colorants, additives, and regrind materials), as well as manufacturing processes and cooling rates. The C. L. Smith Company also asks what kind of data would be sufficient to show an equivalent level of safety without having to retest the packaging.

It is not our intention to impose analysis and documentation requirements that would negate the benefits currently realized from utilizing the packaging variations, nor do we believe that a requirement to document the methodology used to determine equivalent performance of the variation to the originally tested packaging will result in a significantly increased regulatory burden. We agree that, in general, the supporting documentation may be minimal depending on the degree to which the packaging varies from the original tested design. In many cases, preparation of the documentation should take as little as 60 seconds. The type and level of documentation necessary for demonstration of equivalent level of performance will be based on the change made to the packaging. In addition, we are not specifying a format or detailed examples to provide flexibility to the person making the certification. Documentation may be copies of specification sheets from the original packaging component and the substituted component along with a brief explanation of why they are similar and the name of the individual who made that determination. If the person certifying compliance with § 178.601(g)(1) has a copy of the original test report, he or she may hand-write a few sentences on the report itself in association with the substituted component explaining what was changed and why the packagings are significantly similar. For example, if a person is substituting a plastic bottle used as an inner receptacle with one from a different manufacturer, he or she would describe why the packages are of similar design; similar thread types, same or smaller closure, same type and grade of plastic, and who made these determinations. If the person certifying compliance with the variation chooses to perform tests on the components as a means of comparison, he or she could choose to describe the tests and the results. Because testing is not a requirement for determining an equivalent level of performance, the test description could be as detailed as needed by the person certifying compliance for their complete understanding of the test results.

Based on comments to the NPRM, in this final rule we are revising the proposed language. The language in the NPRM was ambiguous regarding a shipper's responsibilities versus the responsibilities of the manufacturer. PHMSA did not intend to imply that a manufacturer need only document changes made in accordance with Variation 1 and shippers must document changes made to a packaging design in accordance with any variation. For consistency with § 178.601, PHMSA is clarifying that the supporting documentation for equivalent level of performance is only applicable to Variation 1.

K. Selective Testing of Steel Drums

SSCI petitioned PHMSA (P–1337) to make several changes to the provisions in § 178.601(g)(8), which apply to the approval of selective testing of steel drums that differ in minor respects from

a tested type of drum. The changes proposed by SSCI would allow drums with capacities between 12 and 50 liters (3 and 13 gallons, respectively) to be excepted from re-testing design types found under § 178.601(g)(8).

We are revising § 178.601(g)(8) to allow drums with a capacity of 12 liters or more to take advantage of the exception from further design testing under certain conditions. Commenters generally support this proposal as reducing costs without compromising safety.

The NPRM proposed a list of changes for which design testing would be required, such as a change from straight-sided to tapered, a change to the rated capacity and outside dimensions, a change to the type of side seam welding or type of steel used, and changes in the locations in the type, size, and locations of closures. As proposed in the NPRM, for UN 1A2 drums, a change in the width of lugs or extensions in the crimp/lug cover would necessitate design testing of the drum. SSCI suggests that minor modifications dealing with the width of lugs or extensions in a crimp/lug cover relate to making a package more user-friendly and should not be considered a different design type so long as the package performance is repeatable as tested. We disagree. Historically, modest changes in the size and style of the materials and closures for a hazardous materials package have produced changes in that packaging's test results. Therefore, PHMSA is incorporating the language as proposed.

PHMSA has issued numerous approvals to manufacturers authorizing the use of fewer than eighteen test samples. As proposed in the NPRM, we are revising § 178.601(k) to authorize a lesser quantity of test samples used in testing of stainless steel drums. We are adding the provisions found in these approvals to § 178.601(k). PHMSA received no comments on the proposed language change to this section as proposed in the NPRM.

L. Revisions to Requirements for IBCs

In the NPRM, we proposed to revise the lower volumetric limit for flexible IBCs (FIBCs). In Docket HM–181E (59 FR 38068), published July 26, 1994, we defined "Body" as having a lower limit of 450 liters, thus precluding the manufacture of IBCs with a volume of less than 450 L. In reviewing the HMR, we have identified a gap in the allowable packaging specifications for flexible packagings with a capacity between 50 kg and 400 kg (*i.e.,* specification non-bulk bags may not exceed 50 kg). To remedy this gap, we proposed to allow bags between 50 kg and 400 kg to be manufactured and tested under IBC standards in Subparts N and O of Part 178. FIBCA, in support of the proposed change, stated that it is important to address flexible packagings between 50 kg and 400 kg. At this time we are incorporating the change to flexible IBC allowing smaller IBCs. We received numerous comments in support of eliminating the limit for all or certain IBCs and Large Packagings. We are continuing to research to determine if we should eliminate the lower limit for all IBCs. The comments received in response to this rulemaking will be taken under consideration if we develop a future rulemaking.

We proposed moving the lower limit for IBCs currently in the definition of "Body" in § 178.700 to the individual standards in §§ 178.705 through 178.710. These are more appropriate sections for the lower limit and will result in better understanding of the individual IBC specifications. In addition, we proposed to authorize smaller flexible IBCs in § 178.710 by decreasing the limit to 50 kg. Several commenters supported lowering the quantity limit for flexible IBCs. Commenters did not remark on moving these provisions to individual standards. Therefore, we are decreasing the lower limit for flexible IBCs to 50 kg and retaining the 400 kg lower limit for rigid IBCs.

Two commenters (DGAC and FIBCA) oppose a lower volumetric limit for IBCs; they suggest there should be no lower limit on any IBC design type. DGAC contends this would provide consistency with the UN Model Regulations allowing manufacturers to construct IBCs to non-bulk sizes. For example, a shipper would have the choice between a 4G or an 11G packaging when choosing a non-bulk box. In the NPRM, we did not propose to remove the existing lower volumetric limit for IBCs other than flexible IBCs, but we did invite comment on this issue for discussion for a future rulemaking. We are not implementing a change in this final rule to the lower limit of all IBCs. However, we are lowering the limit on FIBCs as proposed in the NPRM. The change to the language in these sections does not constitute a change in the HMR. IBCs have always had a lower volumetric limit under the HMR.

In the NPRM, we proposed requiring in § 178.810 a second drop test for IBCs with a capacity of 0.45 cubic meters (15.9 cubic feet) or less in combination with the proposal to remove the lower limit of 450 liters (119 gallons) and 0.45 cubic meters (15.9 cubic feet) from the specifications for flexible IBCs. Two commenters (Kurt Colborn and FIBCA) support the addition of a second drop test requirement for IBCs. FIBCA states that the second drop test proposed is consistent with approvals that have been issued by the DOT. One commenter (RIPA) is opposed to a second drop test because it applies only to flexible IBCs and, in RIPA's view, is arbitrary and is inadequate from a safety perspective.

The additional drop test is not an arbitrary requirement. Non-bulk packagings are handled in transportation in a different manner than IBCs. Often loading and unloading of a transport vehicle is performed without the use of a mechanical handling device such as a fork lift or hoist. Non-bulk packages are more likely to be dropped while in transportation. Over the past ten years, when issuing an approval in accordance with § 178.801(i), we have imposed an additional drop test for non-bulk capacity IBCs. Therefore, we are incorporating this additional drop test in § 178.810. The net effect of this revision is to eliminate the need to obtain an approval.

We proposed revising the stacking test for IBCs prescribed in § 178.815 by adding a new paragraph (e)(4) to specify the passing criteria for the dynamic compression test after application of the required load include (1) no permanent deformation that would render the IBC or its base pallet unsafe, and (2) maximum deflection may not exceed one inch. We received no comments on this proposal. We are adopting this revision in the final rule as a clarification of existing requirements.

In the NPRM, we proposed that § 178.819 be revised to clarify IBCs intended to contain liquids be permitted to use water as the filling material for a vibration test, and that an IBC sample be placed on a vibrating platform with a vertical or rotary double-amplitude of one inch. One commenter (RIPA) addressed this issue. The commenter supports both proposals. Therefore, we are revising subparagraph (b)(1) to clarify that water is a suitable test filler material for the vibration test, and subparagraph (b)(2) to clarify that these testing provisions are permitted and to provide additional options when performing the vibration test. In paragraph (b)(2), we clarify that a vibrating platform may be used that will produce vertical or rotary double-amplitude.

M. Large Packagings

Large Packagings are currently authorized for the transportation of

hazardous materials if approved by the Associate Administrator for Hazardous Materials Safety. In the NPRM, we proposed to remove the approval requirement and add two new subparts (P and Q) to Part 178 for the design, construction, and testing of Large Packagings. Adding the manufacture, testing and use requirements into the HMR provides additional flexibility and effectively removes the need to apply for an approval to manufacture and use these packagings in the United States. The design, construction and testing requirements are based on the UN Recommendations on the Transport of Dangerous Goods, Thirteenth Revised Edition (2003); Chapter 6.6 Requirements for the Construction and Testing of Large Packagings. The regulatory layout and language is modeled on the current requirements for IBCs. We also proposed a number of other changes to the HMR to authorize the use of Large Packagings for the transportation of specific hazardous materials and to specify operational requirements.

Special provisions. Section 172.102 defines special provisions for entries in the Hazardous Materials Table (HMT). In paragraph (c)(4) introductory text and in Table 1, the HMR authorize the use of IBCs for entries that reference certain IB Special Provisions (*e.g.,* IB3). To authorize the use of Large Packagings we proposed to revise paragraph (c)(4) to include provisions for Large Packagings. In this section, we also proposed to restrict the use of Large Packagings to Packing Group III materials, with the exception of the following PG II entries, which are authorized via a new Special Provision 41: "UN 2531, Methacrylic acid, stabilized" and "UN 3291, Regulated medical waste, n.o.s." These two Packing Group II entries are authorized consistent with the UN Recommendations. We did not receive any comments on the proposal to authorize these two Packing Group II materials for transportation in Large Packagings.

Consistent with the decision to authorize the use of Large Packagings we are adopting the revisions to Special Provisions IB3 and IB8. The revised language specifies that Large Packagings are authorized when a table entry specifies Special Provision IB3 or IB8. We are inserting a new Table 3 authorizing Large Packagings and revising Table 1 so that IB3 and IB8 reference the new Table 3.

One commenter, (Charles E. Tudor) states that we should authorize Large Packagings through a separate Special Provision table to allow for future flexibility. We do not agree that a separate table is necessary at this time. We may reassess the need depending on future rulemaking actions in this area.

Placarding. General provisions for placarding of bulk packagings require bulk packagings, including IBCs, to be placarded on each side and each end for a total of four placards. In accordance with an exception in § 172.514, a shipper may choose to placard an IBC and certain other bulk packagings on two opposite sides or label the IBC in accordance with Part 172, Subpart E. In this final rule, we are adding, as proposed in the NPRM, Large Packagings to the types of packagings that may be placarded on only two opposite sides or labeled instead of placarded. We received no comments regarding the proposed revisions to this section.

Operational requirements. In the NPRM, we proposed a new § 173.36 to specify operational requirements for the use of Large Packagings. This section addresses the Large Packaging filling limits and procedures. Specifically, we proposed to require Large Packagings to be stowed with closures upright for liquid cargoes, and inner packagings in Large Packagings to be packed, secured, and cushioned to prevent breakage or leakage during transportation. In addition, we proposed conditions under which Large Packagings may be reused. We also proposed to require that no hazardous material be on the outside of Large Packagings during transportation, and that Large Packagings be securely fastened to or contained within a transport unit. Further, we proposed to prohibit the use of inner packagings made of paper or fiber in Large Packagings used to transport solids that could become liquid during transportation, and we proposed to require inner packagings in Large Packagings used to transport liquids to be resistant to internal pressure releases likely to be encountered during transportation. Finally, we proposed to limit the capacity of Large Packagings used to transport hazardous materials to a maximum of 3 cubic meters, and we proposed conditions under which Large Packagings could be used to transport more than one hazardous material.

DGAC and CropLife oppose the new § 173.36 for Large Packagings on the grounds that they would prefer Large Packagings be treated as they are in the UN Model Regulations.

All the provisions for Large Packagings in this rulemaking that differ from international requirements are consistent with the current HMR provisions for non-bulk combination packagings and IBCs. We do not believe that Large Packagings should be addressed differently than IBCs in the HMR. In the HMR we spell out specific standards that must be met. These standards include requirements that a package must be inspected prior to offering for transportation to ensure that there are no leaks, that no hazardous material is on the external surface of the packaging, and that the package does not have sharp or protruding objects that may puncture it or other packagings in transport. The intention of this rulemaking in regard to Large Packagings was not to make a major change in packaging requirements, but rather to incorporate Large Packagings into the HMR. IBC and non-bulk packaging standards are based on the UN Model regulations with minor alterations for safety and consistency with domestic practices. In this final rule, we are adopting the operational requirements proposed in the NPRM.

Two commenters (DGAC and APE) state that the vibration testing requirement for all Large Packagings should be a "capability" rather than an actual test because the inner packagings perform a cushioning function. APE also objects to requiring a vibration test for Large Packagings, stating this represents an additional cost burden for the U.S. industry as compared to their international competitors because the UN Recommendations do not require that these packagings be subject to this test, especially those containing inner packagings and articles. A Large Packaging, other than a flexible Large Packaging, is similar in design to an IBC, and subject to similar packaging design stresses and opportunities for failure. We believe the vibration test is an essential component for assessing the integrity of an IBC packaging and a Large Packaging, therefore, in this final rule are requiring a Large Packaging to pass a vibration test as well. We agree with the commenters that, like an IBC, a Large Packaging may be used as a single or combination packaging, and that inner packagings, when used, may provide some cushioning. However, the degree to which these packagings can provide cushioning depends greatly on their structure and content, which can vary greatly. Because the use of inner packagings is not mandatory in Large Packagings, and because inner packagings cannot be relied upon to provide a consistent level of cushioning, we believe the vibration test is necessary to assist us with determining the performance capability of a Large Packaging in transportation. Therefore, in this final rule we are requiring the vibration test to be performed and

documented for Large Packagings, other than flexible Large Packagings.

In the NPRM, we proposed to revise § 173.62 to authorize Large Packagings for the transportation of certain explosives. One commenter (Charles E. Tudor) suggests that the HMR should authorize the use of Large Packagings to transport additional explosives that have a very low mass. APE urges PHMSA to permit consumer fireworks be transported in UN 50G Large Packagings. The commenters did not submit safety data or information to demonstrate that consumer fireworks or other low-mass explosives may be transported safely in Large Packagings. Absent such data, we cannot support a broad authorization for the use of Large Packagings to transport explosive materials. Therefore, in this final rule, we are adopting the provisions for the use of Large Packagings for the transportation of certain explosives without change.

In the NPRM, we proposed to amend §§ 173.240 through 173.242 to authorize Large Packagings for the transportation of certain hazardous materials and to clarify that Large Packagings are not authorized for Packing Group I or II materials. We received no comments on the proposed changes. Therefore, we are adopting them without change in this final rule.

As indicated above, we proposed to add Subparts P and Q to Part 178 to specify design, construction, and testing requirements for Large Packagings. Most commenters support the addition of these subparts. Therefore, we are adopting them as proposed in the NPRM.

N. Additional Revisions in This Final Rule

Under Docket HM–215G (69 FR 76043), published on December 20, 2004, we revised § 173.249(c) to authorize the return of portable tanks containing a residue of bromine. In this final rule, we are revising paragraph (b) to authorize the transportation of bromine residue in cargo tanks to facilitate the return of empty cargo tanks with a bromine residue. PHMSA received no comments on the proposed language change to this section; in this final rule, it is adopted as proposed in the NPRM.

We are changing the section heading and paragraph (a) of § 174.63, which describes rail specific operational requirements for Portable tanks, IM portable tanks, IBCs, cargo tanks, and multi-unit tank car tanks, to indicate that the requirements in this section also apply to Large Packagings. PHMSA received no comments on the proposed language change to this section. Therefore, in this final rule, it is adopted as proposed in the NPRM.

V. Rulemaking Analysis and Notices

A. Statutory/Legal Authority for This Rulemaking

This final rule is published under authority of 49 U.S.C. 5103(b), which authorizes the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous materials in intrastate, interstate, and foreign commerce. This final rule adopts regulations to enhance the safe and secure transportation of hazardous materials by aircraft in intrastate, interstate, and foreign commerce. This notice revises miscellaneous HMR requirements applicable to hazardous materials packaging.

B. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is a non-significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, is not subject to formal review by the Office of Management and Budget. This final rule is considered non-significant under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034).

The cost impacts of the changes in this rulemaking are expected to be minimal. Many of the amendments in this rulemaking are intended to clarify current regulatory requirements specific to the construction and use of packagings and do not impose any additional costs on the regulated community. The most significant changes in the final rule relate to: (1) The manufacture, testing and use of a new packaging category called "Large Packagings"; (2) the information required to be contained in a packaging test report prepared by the person certifying compliance with the HMR; (3) requiring shippers to maintain a copy of the manufacture notification already provided to them by the packaging manufacture in accordance with current regulations; and (4) providing guidance to packaging manufacturers on how to instruct shippers to effectively assemble and close packagings.

A "Large Packaging" is a type of packaging design authorized by the UN Recommendations but currently only authorized in the HMR through an approval. Adding the manufacture, testing and use requirements for this packaging into the HMR provides additional flexibility and effectively removes the need to apply for an approval to manufacture and use these packagings in the United States, resulting in a reduction in cost to the regulated community. This final rule also includes amendments to require Large Packaging manufacturers to keep records for the qualification of each design type and for each design requalification. We expect this recordkeeping requirement will apply to fewer than 10 regulated entities. Thus, the overall impact of this requirement will be minimal and will be more than offset by the additional flexibility and administrative cost savings provided by the elimination of current approval provisions.

Currently under the HMR, a person certifying that a packaging meets the construction and testing requirements for UN standard packaging must retain documentation relative to the: (1) Name and address of the packaging manufacture and testing facility; (2) material of construction; (3) capacity, dimensions, closures, and method of closures; and (4) test results. However, all of the record retention requirements associated with UN standard packaging certification are currently spread out throughout the HMR. Therefore, this amendment should not result in any substantial cost impacts on the regulated community.

We are also revising the HMR to require shippers to maintain a copy of the manufacture notification provided to them by the packaging manufacture, and to provide guidance to packaging manufacturers on how to instruct shippers to effectively assemble and close packagings. As a result of comments to the notice of proposed rulemaking, these amendments have been modified to allow more flexibility to packaging manufacturers and to allow for packagings with a simpler means of closure for the end user. Therefore, these amendments should not result in significant cost impacts to the regulated community.

This final rule is designed to increase the clarity of the HMR, thereby enhancing voluntary compliance with existing regulatory requirements while reducing compliance costs. Enhanced voluntary compliance by the regulated community improves overall safety. In addition, we anticipate many changes contained in this rule will have economic benefits. For example, the final rule broadens the scope of several packaging exceptions, which manufacturers and shippers may use to reduce transportation costs. Moreover, the incorporation of Large Packaging specifications into the HMR will eliminate the need for shippers to obtain an approval from PHMSA to use Large Packagings, thus increasing flexibility

and reducing transportation costs. Finally, incorporation of the Large Packaging specifications into the HMR and adoption of other provisions intended to align the HMR with international standards will promote better understanding of the regulations, increased industry compliance, and the smooth flow of hazardous materials in transportation.

C. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 ("Federalism"). This final rule preempts State, local, and Indian tribe requirements, but does not impose any regulation with substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal Hazardous Materials Transportation Law, 49 U.S.C. 5101–5127, contains an express preemption provision (49 U.S.C. 5125(b)) preempting State, local, and Indian tribe requirements on the following subjects:

(1) The designation, description, and classification of hazardous materials;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;

(3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; or

(5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This final rule addresses covered subject items 1, 2, 3, and 5 above. This rule preempts any State, local, or Indian tribe requirements concerning these subjects unless the non-Federal requirements are "substantively the same" as the Federal requirements.

Federal hazardous materials transportation law provides at § 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. This effective date of preemption is 90 days after the publication of this final rule in the **Federal Register**.

D. Executive Order 13175

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13175 ("Consultation and Coordination with Indian Tribal Governments"). Because this final rule does not have tribal implications and does not impose direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply.

E. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities. An agency must conduct a regulatory flexibility analysis unless it determines and certifies that a rule is not expected to have a significant impact on a substantial number of small entities. This final rule amends miscellaneous packaging provisions in the HMR to clarify provisions based on our own initiatives and also on petitions for rulemaking. While maintaining safety, it relaxes certain requirements. Many of the amendments in this rulemaking are intended to clarify current regulatory requirements specific to the construction and use of non-bulk and bulk packagings and do not impose any additional costs on small entities.

This final rule has been developed in accordance with Executive Order 13272 ("Proper Consideration of Small Entities in Agency Rulemaking") and DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts of draft rules on small entities are properly considered. The changes in this final rule will enhance safety, and I certify that this proposal, if promulgated, would not have a significant economic impact on a substantial number of small entities.

F. Unfunded Mandates Reform Act of 1995

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It will not result in costs of $120.7 million or more, in the aggregate, to any of the following: State, local, or Native American tribal governments, or the private sector.

G. Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995, no person is required to respond to an information collection unless it has been approved by OMB and displays a valid OMB control number. PHMSA currently has approved information collections under OMB Control No. 2137–0018, "Inspection and Testing of Portable Tanks and Intermediate Bulk Containers," expiring on October 31, 2010; OMB Control No. 2137–0034, "Hazardous Materials Shipping Papers and Emergency Response Information," expiring on May 31, 2011; OMB Control No. 2137–0557, "Approvals for Hazardous Materials," expiring on June 30, 2011; and OMB Control No. 2137–0572, "Testing Requirements for Non-Bulk Packaging," expiring on March 31, 2010. This final rule will result in an increase in annual burden and costs under OMB Control No. 2137–0034 and OMB Control No. 2137–0572.

PHMSA will submit revised information collections to the Office of Management and Budget (OMB) for approval based on the amendments adopted in this final rule. Specifically, this final rule identifies an increase in annual burden and costs under OMB Control No. 2137–0018 which is being offset by a reduction in burden under OMB Control No. 2137–0557 because of the conversion of several approval provisions for packagings into the HMR. These amendments will necessitate a revision to the title of OMB Control No. 2137–0018 to "Inspection and Testing of Portable Tanks, Intermediate Bulk Containers, and Large Packagings." In addition, due to comments received in response to the notice of proposed rulemaking, we have revised the total information collection burden for OMB Control No. 2137–0034 and OMB Control No. 2137–0572 as follows:

OMB Control No. 2137–0034, "Hazardous Materials Shipping Papers and Emergency Response Information"

Total Annual Number of Respondents: 250,000.
Total Annual Responses: 260,000,000.
Total Annual Burden Hours: 6,500,000.
Total Annual Burden Cost: $6,510,000.

OMB Control No. 2137–0572, "Testing Requirements for Non-Bulk Packaging"

Total Annual Number of Respondents: 5,010.
Total Annual Responses: 15,500.
Total Annual Burden Hours: 32,500.
Total Annual Burden Cost: $812,500.

Please direct your requests for a copy of this information collection to

Deborah Boothe (PHH–11) or T. Glenn Foster (PHH–12), Office of Hazardous Materials Standards, Pipeline and Hazardous Materials Safety Administration (PHMSA), U.S. Department of Transportation, 1200 New Jersey Avenue, SE., Washington, DC 20590–0001.

H. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document may be used to cross-reference this action with the Unified Agenda.

I. Environmental Assessment

The National Environmental Policy Act (NEPA), 42 U.S.C. 4321–4375, requires federal agencies to analyze regulatory actions to determine whether the action will have a significant impact on the human environment. The Council on Environmental Quality (CEQ) regulations order federal agencies to conduct an environmental review considering (1) The need for the action, (2) alternatives to the action, (3) environmental impacts of the action and alternatives, and (4) the agencies and persons consulted during the consideration process. 40 CFR 1508.9(b).

Purpose and Need. As discussed elsewhere in this preamble, this final rule is intended to clarify existing requirements, enhance flexibility, and reduce compliance burdens. The revisions will reduce confusion and promote safety.

Alternatives. PHMSA considered the following alternatives:

No action—Under this alternative, we would not attempt to revise HMR packaging requirements. This alternative does not address the problems we have identified related to unclear or confusing regulations nor does it reduce regulatory burdens and promote flexibility. Thus, it was not selected.

Adopt revisions to the HMR packaging regulations to clarify requirements and reduce regulatory burdens—This is the selected alternative. It accomplishes our regulatory reform goals while enhancing understanding of and compliance with the HMR.

Analysis of Environmental Impacts. Hazardous materials are substances that may pose a threat to public safety or the environment during transportation because of their physical, chemical, or nuclear properties. The hazardous material regulatory system is a risk management system that is prevention-oriented and focused on identifying a safety hazard and reducing the probability and quantity of a hazardous material release. Hazardous materials are categorized by hazard analysis and experience into hazard classes and packing groups. The regulations require each shipper to classify a material in accordance with these hazard classes and packing groups; the process of classifying a hazardous material is itself a form of hazard analysis. Further, the regulations require the shipper to communicate the material's hazards through use of the hazard class, packing group, and proper shipping name on the shipping paper and the use of labels on packages and placards on transport vehicles. Thus, the shipping paper, labels, and placards communicate the most significant findings of the shipper's hazard analysis. A hazardous material is assigned to one of three packing groups based upon its degree of hazard—from a high hazard Packing Group I to a low hazard Packing Group III material. The quality, damage resistance, and performance standards of the packaging in each packing group are appropriate for the hazards of the material transported.

Releases of hazardous materials, whether caused by accident or deliberate sabotage, can result in explosions or fires. Radioactive, toxic, infectious, or corrosive hazardous materials can have short- or long-term exposure effects on humans or the environment. Generally, however, the hazard class definitions are focused on the potential safety hazards associated with a given material or type of material rather than the environmental hazards of such materials.

Under the HMR, hazardous materials may be transported by aircraft, vessel, rail, and highway. The potential for environmental damage or contamination exists when packages of hazardous materials are involved in accidents or en route incidents resulting from cargo shifts, valve failures, package failures, loading, unloading, collisions, handling problems, or deliberate sabotage. The release of hazardous materials can cause the loss of ecological resources and the contamination of air, aquatic environments, and soil. Contamination of soil can lead to the contamination of ground water. For the most part, the adverse environmental impacts associated with releases of most hazardous materials are short-term impacts that can be reduced or eliminated through prompt clean-up/decontamination of the accident scene.

We have reviewed the risks associated with adopting the miscellaneous amendments in this rule. The amendments in this rulemaking are intended to clarify existing requirements concerning the construction and use of non-bulk and bulk packagings, such as requiring the shipper to maintain a copy of a hazmat packaging's closure instructions for 365 days (unless the instructions are permanently embossed or printed on the packaging) and adopting requirements for UN standard Large Packagings (removing the need for an approval). The amendments also involve minor changes to existing regulations that will permit additional flexibility, such as permitting the UN symbol to be stenciled on packagings, clarifying definitions, and not requiring international plastic packagings to bear a domestic mark currently required under § 172.313(b). The requirements in this rulemaking will reduce confusion and enhance voluntary compliance, thereby reducing the likelihood of deaths, injuries, property damage, hazardous materials release, and other adverse consequences of incidents involving the transportation of hazardous materials. We have determined there will be no significant environmental impacts associated with this final rule.

Consultation and Public Comment. As discussed above, PHMSA published an NPRM to solicit public comments on our proposal. A total of 24 persons submitted comments, including industry associations, shippers, carriers, federal and State agencies, and private citizens.

J. Privacy Act

Anyone is able to search the electronic form for all comments received into any of our dockets by the name of the individual submitting the comments (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78).

Issued in Washington, DC, on January 21, 2010, under authority delegated in 49 CFR Part 1.

Cindy Douglass,

Assistant Administrator/Chief Safety Officer.

[FR Doc. 2010–1615 Filed 2–1–10; 8:45 am]

BILLING CODE 4910–60–P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Part 172

[Docket No. PHMSA–06–25885 (HM–232F)]

RIN 2137–AE22

Hazardous Materials: Risk-Based Adjustment of Transportation Security Plan Requirements

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA).

ACTION: Final rule.

SUMMARY: PHMSA, in consultation with the Transportation Security Administration (TSA) of the Department of Homeland Security (DHS), is modifying current security plan requirements applicable to the commercial transportation of hazardous materials by air, rail, vessel, and highway. Based on an evaluation of the security threats associated with specific types and quantities of hazardous materials, the final rule narrows the list of materials subject to security plan requirements and reduces associated regulatory costs and paperwork burden. The final rule also clarifies certain requirements related to security planning, training, and documentation.

DATES: *Effective date:* This final rule is effective October 1, 2010.

Voluntary compliance date: Voluntary compliance with all the amendments in this final rule is authorized as of April 8, 2010.

FOR FURTHER INFORMATION CONTACT: Susan Gorsky or Ben Supko, Office of Hazardous Materials Standards, Pipeline and Hazardous Materials Safety Administration, 202–366–8553.

SUPPLEMENTARY INFORMATION:

I. Background

A. Current DOT Security Requirements

The federal hazardous materials transportation law (federal hazmat law, 49 U.S.C. 5101 *et seq.*) authorizes the Secretary of Transportation to "prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce." The Secretary has delegated this authority to PHMSA. Authority to enforce the Hazardous Materials Regulations (HMR; 49 CFR Parts 171–180) has been delegated to the FAA "with particular emphasis on the transportation or shipment of hazardous materials by air"; the FRA "with particular emphasis on the transportation or shipment of hazardous materials by railroad"; PHMSA "with particular emphasis on the shipment of hazardous materials and the manufacture, fabrication, marking, maintenance, reconditioning, repair or test of multi-modal containers that are represented, marked, certified, or sold for use in the transportation of hazardous materials"; and the FMCSA "with particular emphasis on the transportation or shipment of hazardous materials by highway." 49 CFR Part 1, Subpart C. The United States Coast Guard (USCG) is authorized to enforce the HMR in connection with certain transportation or shipment of hazardous materials by water. This authority originated with the Secretary and was first delegated to USCG prior to 2003, when USCG was made part of the Department of Homeland Security. DHS Delegation No. 0170, Section 2(99) & 2(100); see also 6 U.S.C. 458(b), 551(d)(2). Thus, enforcement of the security plan and training regulations is shared among the DOT operating administrations and the USCG, with each placing particular emphasis on their respective authorities.

The HMR require persons who offer for transportation or transport certain hazardous materials in commerce to develop and implement security plans. The security plan requirements in Subpart I of Part 172 of the HMR apply to persons who offer for transportation or transport:

(1) A highway-route controlled quantity of a Class 7 (radioactive) material;

(2) More than 25 kg (55 lbs.) of a Division 1.1, 1.2, or 1.3 (explosive) material;

(3) More than 1 L (1.06 qt.) per package of a material poisonous by inhalation in Hazard Zone A;

(4) A shipment in a bulk packaging with a capacity equal to or greater than 13,248 L (3,500 gallons) for liquids or gases or greater than 13.24 cubic meters (468 cubic feet) for solids;

(5) A shipment in other than a bulk packaging of 2,268 kg (5,000 lbs.) gross weight or more of one class of hazardous materials for which placarding is required;

(6) A select agent or toxin regulated by the Centers for Disease Control and Prevention under 42 CFR Part 73 or a select agent or toxin regulated by the U.S. Department of Agriculture under 9 CFR Part 121; or

(7) A shipment that requires placarding under Subpart F of Part 172 of the HMR.

A security plan must include an assessment of possible transportation security risks and appropriate measures to address the assessed risks. Specific measures implemented as part of the plan may vary with the level of threat at a particular time. At a minimum, the security plan must address personnel security, unauthorized access, and en route security. For personnel security, the plan must include measures to confirm information provided by job applicants for positions involving access to and handling of the hazardous materials covered by the plan. For unauthorized access, the plan must include measures to address the risk of unauthorized persons gaining access to materials or transport conveyances being prepared for transportation. For en route security, the plan must include measures to address security risks during transportation, including the security of shipments stored temporarily en route to their destinations.

As indicated above, the HMR set forth general requirements for a security plan's components rather than a prescriptive list of specific items that must be included. The HMR set a performance standard providing offerors and carriers with the flexibility necessary to develop security plans addressing their individual circumstances and operational environments. Accordingly, each security plan will differ because it will be based on an offeror's or a carrier's individualized assessment of the security risks associated with the specific hazardous materials it ships or transports and its unique circumstances and operational environment.

B. Notice of Proposed Rulemaking

On September 9, 2008, PHMSA published a notice of proposed rulemaking (NPRM; 73 FR 52558) to propose modifications to the list of materials for which a security plan is required. The NPRM was based on comments received in response to an ANRPM issued under this docket (71 FR 55156) and in a public meeting we hosted on November 30, 2006, and an evaluation of possible security threats posed by specific types and classes of hazardous materials. In identifying materials to which a security plan should apply, we consulted with the Federal Railroad Administration, Federal Motor Carrier Safety Administration, and the Transportation Security Administration (TSA) in the Department of Homeland Security, to assess the transportation security risks associated with the different classes and quantities of hazardous materials. We evaluated specific transportation scenarios in which a terrorist could deliberately use hazardous materials to cause large-scale casualties and property

damage. In our qualitative risk evaluation, we considered the following factors: (1) Physical and chemical properties of the material or class of materials and how those properties could contribute to a security incident; (2) quantities shipped and mode of transport; (3) past terrorist use; (4) potential use; and (5) availability. One of the most significant security vulnerabilities involves the potential for an individual or group to take control of a conveyance containing a high-risk material and move it to a site where the material could cause maximum physical or psychological damage. For some hazardous materials, the primary security threat involves theft or highjacking of raw materials for use in developing explosive devices or weapons.

As we indicated in the NPRM, one of our goals for this rulemaking is to harmonize to the extent consistent with our security goals the list of materials for which security plans are required with the list of materials designated as high consequence dangerous goods for which enhanced security measures are recommended in the United Nations Model Regulations on the Transport of Dangerous Goods (UN Recommendations). The recommended security measures include security plans and are similar to the requirements in Subpart I of Part 172 of the HMR. The UN Recommendations define high consequence dangerous goods as materials with the "potential for mis-use in a terrorist incident and which may, as a result, produce serious consequences such as mass casualties or mass destruction." The UN Recommendations list the following materials as high consequence dangerous goods:

(1) Division 1.1 explosives;
(2) Division 1.2 explosives;
(3) Division 1.3 compatibility group C explosives;
(4) Division 1.5 explosives;
(5) Bulk shipments of Division 2.1 flammable gases;
(6) Division 2.3 toxic gases (excluding aerosols);
(7) Bulk shipments of Class 3 flammable liquids in Packing Group I or II;
(8) Class 3 and Division 4.1 desensitized explosives;
(9) Bulk shipments of Division 4.2 Packing Group I materials;
(10) Bulk shipments of Division 4.3 Packing Group I materials;
(11) Bulk shipments of Division 5.1 Packing Group I oxidizing liquids;
(12) Bulk shipments of Division 5.1 perchlorates, ammonium nitrate and ammonium nitrate fertilizers;
(13) Division 6.1 Packing Group I toxic materials;
(14) Division 6.2 infectious substances of Category A (UN2814 and 2900);
(15) Class 7 radioactive materials in quantities greater than 3000 A_1 (special form) or 3000 A_2, as applicable, in Type B(U) or Type B(M) or Type (C) packages; and
(16) Bulk shipments of Class 8 Packing Group I materials.

For purposes of the security provisions, the UN defines "in bulk" to mean quantities greater than 3,000 kg (6,614 lbs.) for solids and 3,000 liters (793 gallons) for liquids and gases in portable tanks or bulk containers.

In the NPRM, we proposed the following modifications to the list of materials subject to security plans:

NPRM LIST

Class	Current threshold	Proposed threshold	Change
1.1	Any quantity	Any quantity	None.
1.2	Any quantity	Any quantity	None.
1.3	Any quantity	Any quantity	None.
1.4	A quantity requiring placarding	Any quantity of UN 0104, 0237, 0255, 0267, 0289, 0361, 0365, 0366, 0440, 0441, 0455, 0456, 0500.	Security plan required only for detonators and shaped charges.
1.5	A quantity requiring placarding	Any quantity	Security plan required for all shipments.
1.6	A quantity requiring placarding	Not subject	Security plan not required for any Division 1.6 shipments.
2.1	A quantity requiring placarding	>3,000 L in a single packaging	Security plan not required for 3,000 L (793 gallons) or less.
2.2	A quantity requiring placarding	Not subject except for oxygen and gases with a subsidiary 5.1 hazard (<3,000 L (793 gallons) in a single packaging).	Security plan not required for most non-flammable, non-poisonous compressed gas shipments.
2.3	Any quantity	Any quantity	None.
3	A quantity requiring placarding	>3,000 L (793 gallons) in a single packaging and any quantity of Class 3 desensitized explosives.	Security plan not required for 3,000 L (793 gallons) or less except for desensitized explosives.
4.1	A quantity requiring placarding	Any quantity desensitized explosives	Security plan not required except for desensitized explosives.
4.2	A quantity requiring placarding	PG I and II only in quantities >3,000 kg in a single packaging.	Security plan not required for PG III materials.
4.3	Any quantity	Any quantity	None.
5.1	A quantity requiring placarding	PG I and II liquids, perchlorates, ammonium nitrate (including fertilizers) in quantities >3,000 L (793 gallons) in a single packaging.	Security plan not required for PG III liquids or unlisted solids.
5.2	Any quantity of Organic peroxide, Type B, liquid or solid, temperature controlled.	Any quantity of Organic peroxide, Type B, liquid or solid, temperature controlled.	None.
6.1	A quantity requiring placarding; any quantity of PIH material.	Any quantity of PG I; >3,000 L (793 gallons) for PG II and III.	Security plan not required for 3,000 L (793 gallons) or less of PG II and III.
6.2	Select agents	Select agents	None.

NPRM LIST—Continued

Class	Current threshold	Proposed threshold	Change
7	Shipments requiring Yellow III label; highway route controlled quantity.	For radionuclides covered by the IAEA Code of Conduct, Category 1 and Category 2 sources per package; for all other radionuclides, 3000 A2 per package.	Security plan only required for Class 7 materials that pose transportation security risk.
8	A quantity requiring placarding	PG I only in quantities >3,000 L (793 gallons) in a single packaging.	Security plan not required for PG II and III materials.
9	Capacity >3,500 gallons for liquid/gas; volumetric capacity >468 cubic feet for solids.	Not subject	Security plan not required for Class 9 materials.

II. Coordination With TSA

DHS is the lead federal agency for transportation and hazardous materials security. DOT consults and coordinates on security-related hazardous materials transportation matters to ensure consistency with DHS requirements and broader security objectives. Both departments work to ensure that the regulated industry is not confronted with inconsistent government-issued security guidance or requirements.

Under Section 101(a) of the Aviation and Transportation Security Act (ATSA, Pub. L. 107–71, November 19, 2001) (codified at 49 U.S.C. 114) and 49 CFR 1502.1, TSA has broad responsibility and authority for "security in all modes of transportation * * *" TSA has additional responsibilities for surface transportation security, as specified in 49 U.S.C. 114(f), through delegation by the Secretary of Homeland Security under the Implementing Recommendations of the 9/11 Commission Act of 2007 (9/11 Commission Act, Pub. L. 110–53; 121 Stat. 266, August 3, 2007).

In sum, TSA's authority with respect to transportation security is comprehensive and supported with specific powers related to the development and enforcement of regulations, security directives, security plans, and other requirements. Under this authority, TSA may identify a security threat to any mode of transportation, develop a measure for dealing with that threat, and enforce compliance with that measure. Moreover, in addition to inspecting for compliance with specific regulations, TSA may conduct general security assessments. Under its authority, TSA may assess threats to transportation security; monitor the state of awareness and readiness throughout the various sectors; determine the adequacy of an owner or operator's transportation-related security measures; and identify security gaps. TSA, for example, could inspect and evaluate for emerging or potential security threats based on intelligence indicators to determine whether the owner or operator's strategies and security measures are likely to deter deficiencies.

When PHMSA adopted its security regulations, it was stated that these regulations were "the first step in what may be a series of rulemakings to address the security of hazardous materials shipments." 68 FR 14511. PHMSA noted in the NPRM that TSA "is developing regulations that are likely to impose additional requirements beyond those established in this final rule" and stated that it would "consult and coordinate with TSA concerning security-related hazardous materials transportation regulations * * *" Id.

In this regard, note that under section 1512 of the 9/11 Commission Act and delegated authority from the Secretary of Homeland Security, TSA must promulgate regulations establishing standards and guidelines for developing and implementing vulnerability assessments and security plans for "high-risk" railroad carriers. TSA published a final rule on rail security on November 26, 2008 (73 FR 72131). That rule established security requirements for freight railroad carriers; intercity, commuter, and short-haul passenger train service providers; rail transit systems; and rail operations at certain, fixed-site facilities that ship or receive specified hazardous materials by rail. It codified the scope of TSA's existing inspection program and requires regulated parties to allow TSA and DHS officials to enter, inspect, and test property, facilities, conveyances, and records relevant to rail security. The rule also requires that regulated parties designate rail security coordinators and report significant security concerns. In addition, the rule requires freight rail carriers and certain facilities handling specified hazardous materials to be able to (1) report location and shipping information to TSA upon request and (2) implement chain of custody requirements to ensure a positive and secure exchange of specified hazardous materials. TSA also clarifies and amends the sensitive security information (SSI) protections to cover certain information associated with rail transportation.

TSA intends to promulgate additional regulations for railroad carriers and other modes of surface transportation that will require them to submit vulnerability assessments and security plans to DHS for review and approval, as well as to develop and implement security training programs for employees performing security-sensitive functions to prepare for potential security threats and conditions. The security plan requirements established by the HMR are to be used as a baseline for security planning. When TSA regulations are issued, the PHMSA security plan and security training requirements for regulated parties that will be subject to the TSA regulations will be reevaluated and revised as appropriate.

To this end, we have worked closely with TSA to align our proposed list of materials subject to security plans with ongoing efforts by TSA in identifying Highway Security Sensitive Hazardous Materials (HSSM). TSA has used its HSSM list in conjunction with voluntary security practices (referred to as Security Action Items or SAIs) to increase the security of certain hazardous materials transported by motor vehicle. Minor differences between our proposal and the TSA HSSM list have been resolved and the overall approach taken by the two agencies in identifying materials that should be subject to security based requirements is consistent and supported by industry associations, offerors, carriers, and private citizens, as evidenced by the comments submitted in response to our NPRM.

Finally, as it implements its transportation security authority, TSA may identify a need to review transportation security plans and programs developed and implemented in accordance with Subpart I of Part 172

of the HMR. Under ATSA, TSA has the authority to "ensure the adequacy of security measures for the transportation of cargo" 49 U.S.C. 114(f)(10) and to "oversee the implementation, and ensure the adequacy, of security measures at airports and other transportation facilities." 49 U.S.C. 114(f)(11). Therefore, parties subject to this regulation must allow TSA and other authorized DHS officials, at any time and in a reasonable manner, without advance notice, to enter and inspect and must provide TSA inspectors with a copy of any security related document required by the HMR or pursuant to TSA's statutory or regulatory authorities. This includes security plans and training documents required under 49 CFR Part 172. TSA does not, however, have the authority to directly enforce DOT safety or security requirements established in the HMR. If, in the course of an inspection of a railroad or motor carrier or a rail or highway hazardous material shipper or receiver, TSA identifies evidence of non-compliance with a DOT safety or security regulation, TSA will provide the information to FRA (for rail) or FMCSA (for motor carriers) and PHMSA for appropriate action. Similarly, since DOT does not have the authority to enforce TSA security requirements, if a DOT inspector identifies evidence of non-compliance with a TSA security regulation or identifies other security deficiencies, DOT will provide the information to TSA for appropriate action.

It is important to note that TSA and DOT have established a tiered approach to transportation security that imposes increasingly stringent security requirements for materials that pose more significant transportation security risks. Thus, the DOT security planning requirements established in 2003 and modified in this final rule establish a baseline requirement for materials that have been determined to pose a security risk across all modes of transportation. However, both TSA and DOT have established more stringent security requirements for certain rail shipments of hazardous materials. As explained in the TSA and DOT final rules on rail security published jointly on November 26, 2008 (73 FR 72130 and 73 FR 72181, respectively), the list of designated "security sensitive" materials to which the enhanced safety and security requirements adopted in those final rules apply—certain shipments of Division 1.1, 1.2, and 1.3, PIH, and radioactive materials—is based on specific railroad transportation scenarios. These scenarios depict how hazardous materials could be deliberately used to cause significant casualties and property damage or accident scenarios resulting in similar catastrophic consequences. DOT and TSA determined that the materials specified in the rail security final rules present the greatest rail transportation safety and security risks—because of the potential consequences of an unintentional release of these materials—and are the most attractive targets for terrorists—because of the potential for these materials to be used as weapons of opportunity or weapons of mass destruction. While DOT and TSA agree that other hazardous materials pose certain safety and security risks, the risks are not as great as those posed by the explosive, PIH, and radioactive materials specified in the rail security final rules. TSA, in consultation with DOT, will continue to evaluate the transportation security risks posed by all types of hazardous materials and the effectiveness of current regulations in addressing those risks and will consider revising specific requirements as necessary.

III. Comments and Analysis

A total of 160 persons submitted comments in response to the September 9, 2008 NPRM. The majority of the comments were submitted by companies, but we also received comments from public interest groups; local, state, and federal government agencies; industry associations; and private citizens. The majority of commenters focused on the proposed revisions to security plan requirements for explosives that are used by the special effects and motion picture industries. To review rulemakings, regulatory evaluations, environmental assessments, comments, and letters submitted in response to this regulatory action go to *http://www.regulations.gov* under docket number PHMSA–06–25885. To locate a specific commenter by name simply use the search function provided by Regulations.gov.

Generally, commenters express support for the regulatory reduction efforts proposed by the NPRM although some commenters disagree with some of the types and classes of materials that would be subject to security planning requirements under the NPRM. In this comment summary, we address areas of concern, as expressed by commenters, including the key comments regarding the types and classes of materials that we included in the proposed list of materials subject to security plans. We especially focus on aligning our list of materials requiring security plans and TSA's HSSM list. Commenters emphasize that consistency is very important in this area, and we agree. TSA's HSSM list focused on materials that have the potential to cause significant fatalities and injuries or significant economic damage when released or detonated during a transportation security incident. Materials classed as HSSM fall into one of two tiers and are subject to specific voluntary security measures that should be taken by manufacturers, shippers, and carriers of the listed materials.

In this final rule we are revising the list of materials subject to security planning. We made several changes to the list of materials based on comments and discussions with our federal partners. We consulted with TSA throughout the development of this final rule. Below we list by Class/Division the Hazardous materials and thresholds subject to security planning under this final rule. The phrase "large bulk quantity," as used in the following table, refers to a quantity greater than 3,000 kg (6,614 pounds) for solids or 3,000 liters (792 gallons) for liquids and gases in a single packaging such as a cargo tank motor vehicle, portable tank, tank car, or other bulk container.

Class/division	PHMSA final rule security plan revisions
1.1	Any quantity.
1.2	Any quantity.
1.3	Any quantity.
1.4	Placarded quantity.
1.5	Placarded quantity.
1.6	Placarded quantity.
2.1	A large bulk quantity.
2.2	A large bulk quantity of materials with an oxidizer subsidiary.
2.3	Any quantity.
3	PG I and II in a large bulk quantity; placarded quantity desensitized explosives.
4.1	Placarded quantity desensitized explosives.
4.2	PG I and II in a large bulk quantity.
4.3	Any quantity.
5.1	Division 5.1 materials in PG I and II, and PG III perchlorates, ammonium nitrate, ammonium nitrate fertilizers, or ammonium nitrate emulsions or suspensions or gels in a large bulk quantity.
5.2	Any quantity of Organic peroxide, Type B, liquid or solid, temperature controlled.
6.1	Any quantity PIH or a large bulk quantity of a material that is not a PIH.
6.2	CDC or USDA list of select agents.
7	IAEA Categories 1 & 2; HRCQ; known radionuclides in forms listed as RAM–QC by NRC; or a quantity of uranium hexafluoride requiring placarding under § 172.505(b).

Class/ division	PHMSA final rule security plan revisions
8	PG I in a large bulk quantity.
9	Not subject.
ORM–D	Not subject.

Any minor differences between the TSA HSSM list and the above list have been discussed with TSA and resolved.

A. Applicable Materials and Thresholds (§ 172.800(b))

As indicated above, the NPRM proposed to narrow the list of materials to which security plan requirements would apply to cover only those materials that pose a significant security risk in transportation. In accordance with § 172.800(b) of the HMR, a security plan is currently required for a quantity of hazardous materials that requires placarding under Subpart F of Part 172. We proposed to remove certain classes of materials from the list and to raise the threshold quantity that would trigger security planning requirements for other classes of materials. Generally, the NPRM proposed to continue the security plan requirement for materials listed in Table 1 of § 172.504, which specifies materials for which placarding is required when any quantity of the material is transported in a bulk packaging, freight container, transport vehicle, or rail car. Thus, we proposed to retain the security plan requirement for any quantity of Division 1.1, 1.2, 1.3 explosive materials; 2.3 poison gases; 4.3 dangerous when wet material; 5.2 Type B organic peroxides, liquid or solid, temperature controlled; and 6.1 materials poisonous by inhalation. We also proposed to require security plans for any quantity of certain Division 1.4 materials, Division 1.5 explosives, Class 3 and Division 4.1 desensitized explosives, and 6.1 materials assigned to Packing Group I.

Several commenters contend that the "any quantity" threshold standard, especially when applied to Table 2 materials (see § 172.504(e)), will present unreasonable and unnecessary compliance challenges for covered persons. We agree that the "any quantity" threshold standard is inappropriate for most Table 2 materials, based on the security risks posed in transportation, and proposed to modify the threshold quantities that would trigger security planning requirements accordingly. The security planning requirement is critical to reducing the security risks associated with a very broad spectrum of hazardous materials. More specific, modal based requirements that apply to larger quantities of material, such as through our rail routing rule, may be required to address specific threats. We are maintaining the "any quantity" threshold because those materials may present a significant security risk under certain modal specific risk-based transportation scenarios even when transported in small amounts.

Dow suggests that we simplify the process of identifying materials for security planning purposes by adding a special provision to the Hazardous Materials Table to identify those materials for which security plans would be required. We disagree with a material-based strategy for identifying high-risk materials. Consistent with our approach to evaluating the safety risks posed by hazardous materials in transportation, we continue to believe that an assessment of hazardous materials security risks should be based on the hazard class and packing group of the material and the quantity or volume transported. In this way, we can ensure that all materials that pose a similar security risk are covered, including mixtures and solutions. Moreover, identifying individual materials through special provisions is inefficient and overly complex.

In the following sections of the preamble we address comments concerning whether specific classes of materials should be subject to security planning requirements.

1. Explosives (Divisions 1.1, 1.2, 1.3, 1.4, 1.5, and 1.6)

The majority of comments received specifically addressed explosives. A total of 125 persons involved with special effects for the motion picture industry submitted comments addressing the proposed threshold for Division 1.4 explosives and desensitized explosives in Class 3 and Division 4.1. Currently, security plans are required for placarded quantities of these materials. In the NPRM, we proposed to require security plans for any quantity of Division 1.4 explosives shipped under certain UN identification numbers and any quantity of desensitized explosives in Class 3 and Division 4.1. Commenters unanimously oppose this provision of the NPRM. The Alliance of Special Effects & Pyrotechnic Operators, Inc. (ASEPO) states that the proposed requirement for security plans to apply to any quantity of Division 1.4 or desensitized explosive materials is unnecessary because secure transportation of the Division 1.4 explosives and desensitized explosives used for special effects has already been achieved under present security measures. ASEPO did not provide details of the security measures currently employed, but stated its belief that the current measures are effective based on the industry's long history of safe and secure transportation of these materials.

The Dangerous Goods Advisory Council (DGAC), Institute of Makers of Explosives (IME), International Society of Explosives Engineers (ISEE), and United Parcel Service of America, Inc. (UPS) suggest that we retain the current threshold for security planning purposes—that is, security plans should be required for explosives, including desensitized explosives, when transported in quantities that require placarding. UPS notes that "shipments are undetectable in commerce unless they reach the level requiring the carrier to apply placards on the vehicle" and suggests that the lack of placards on these shipments enhances their security.

It was not our intent to significantly expand upon current security planning requirements applicable to explosives. In the NPRM, we indicated that most Division 1.4 explosives do not pose a significant transportation security risk and limited security plan requirements to any quantity of a material identified as UN 0104, UN 0237, UN 0255, UN 0267, UN 0289, UN 0361, UN 0365, UN 0366, UN 0440, UN 0441, UN 0455, UN 0456, or UN 0500. Our concern, as expressed in the NPRM, was that Division 1.4 detonators make an attractive target for theft and use as initiating devices for improvised explosive devices (IEDs). In addition, it was our understanding that detonating assemblies and devices such as those listed above were generally shipped with greater quantities of Division 1.1, 1.2, or 1.3 explosives and thus were covered by security plans applicable to those materials. Based on the comments we received, we now understand that the Division 1.4 materials identified in the NPRM are frequently transported in small quantities and in separate shipments from Division 1.1, 1.2, and 1.3 materials.

Because of the strongly adverse comments we received on this issue, and after consulting with TSA, we re-evaluated the proposal to require security plans for shipments of any quantity of Division 1.4 detonators in the specified UN numbers. We agree with commenters that the security risks associated with the transportation of small numbers of these devices are not sufficient to warrant the development and implementation of security plans, particularly given the security measures voluntarily utilized by shippers and carriers. Therefore, in this final rule we are not adopting the proposed revision applicable to Division 1.4 explosives.

Instead, the security planning requirement will apply, as it does now, to all Division 1.4 explosives transported in quantities that require placarding under Subpart F of Part 172 of the HMR.

Currently, a security plan is required for Division 1.5 and 1.6 explosives transported in a quantity that requires placarding. In the NPRM, we proposed to require security plans for any quantity of Division 1.5 materials and remove Division 1.6 explosives from the list of materials for which a security plan is required. Commenters indicate that the proposed revisions to the thresholds for both Division 1.5 materials and 1.6 materials are not necessary. IME and ISEE suggest the inclusion of all explosives at the current level—quantities requiring placarding—has proven to be effective. In regard to Division 1.6 explosives, the Department of Defense Explosives Safety Board (DDESB) does not disagree with our statements in the NPRM regarding the insensitivity of Division 1.6 materials, but indicates that their insensitivity can be overcome by suitable boostering, with results similar to that of a Division 1.2 material. In its comments, DDESB recommends that any quantity of Division 1.6 explosives be included in the list of hazardous materials that require security plans. Though we do not agree that the any quantity threshold is appropriate for Division 1.6 materials, we do agree that security plans should be required for explosives at a given threshold. As a result, this final rule will not eliminate security plan requirements applicable to Division 1.5 and 1.6 materials. Security plans will continue to be required for Division 1.5 and 1.6 materials that are offered for transportation or transported in quantities that require placarding.

We did not propose to change current security planning requirements applicable to Division 1.1, 1.2, and 1.3 explosives in the NPRM. Commenters agree that security plans should be required for these materials when transported in any quantity. In this final rule, we are retaining the current requirement. Thus, without regard to the mode by which the material is transported, shippers and carriers of Divisions 1.1, 1.2, and 1.3 explosives (transported in any quantity) and Divisions 1.4, 1.5, and 1.6 explosives (transported in quantities that require placarding) must develop and implement security plans. Note that the security planning requirements are triggered by the offering or transportation of a hazardous material in a quantity that requires placarding, not by the absence or presence of a placard on a given shipment.

2. Flammable Gases (Division 2.1)

Currently, security plans are required for shipments of Division 2.1 materials when transported in a quantity requiring placarding. In the NPRM, we proposed to raise the threshold trigger for security planning purposes to a quantity greater than 3,000 L (793 gallons). We concluded that shipments of flammable gases in quantities of 3,000 L (793 gallons) or less in a single package do not pose a transportation security risk warranting development and implementation of security plans.

Two commenters address the proposed requirements for compressed gases in Division 2.1. The Gases and Welders Distribution Association supports the proposed changes, suggesting that adopting a threshold that is consistent with security planning provisions in the UN recommendations will facilitate compliance for international transportation and reduce costs for shippers and carriers handling such materials in international commerce. The National Propane Gas Association (NPGA) suggests that propane should not be considered a weapon of mass destruction and it should not be subject to security plans. We disagree. Propane is among the liquefied compressed gases most commonly transported throughout the nation. When liquid propane is released into the atmosphere, it quickly vaporizes into the gaseous form that is its normal state at atmospheric pressure. This happens very rapidly, and in the process, the propane combines readily with air to form fuel air mixtures that are ignitable over a range of 2.2 to 9.5 percent propane by volume. If an ignition source is present in the vicinity of a highly flammable mixture, the vapor cloud ignites and burns very rapidly (characterized by some experts as "explosively"). Based on these characteristics and the frequency with which propane is transported in this country, we believe that propane presents a sufficient security risk to warrant the imposition of security plan and security training requirements when transported in quantities greater than 3,000 L (793 gallons).

In this final rule, we are adopting the proposed threshold for Division 2.1 materials to require security plans for amounts greater than 3,000 L (793 gallons) in a single package or container.

3. Nonflammable Gases (Division 2.2)

Currently, security plans are required for shipments of Division 2.2 materials when offered for transportation or transported in amounts that require placarding. In the NPRM, we proposed to remove most Division 2.2 materials from the list of materials for which security plans are required because the hazard characteristics of these materials do not lend themselves to terrorist or criminal use. However, we proposed to require security plans for oxygen and for other Division 2.2 gases that are oxidizers because they can be used to increase the likelihood and intensity of a fire or other chemical reaction. We also proposed to include any Division 2.2 compressed gas with a subsidiary hazard of Division 5.1 oxidizer for the same reason.

Commenters who addressed this issue oppose the proposal to require security plans for shipments of oxygen and other oxidizing gases. The Compressed Gas Association (CGA) contends that oxygen should be transported without any additional security regulations based on industry experience and its analysis of possible security scenarios. For example, CGA provides an assessment of the impact of firing a shoulder-launched rocket into a large cryogenic oxygen tank. The analysis concludes that the rocket would do nothing more than put a hole in the tank and harmlessly release oxygen into the atmosphere. DGAC on the other hand, supports the inclusion of oxygen, but asserts that the inclusion of other Division 2.2 materials with an oxidizing hazard is not necessary. DGAC contends that it is difficult to imagine how gases such as compressed or liquefied air would be used in an attack.

As discussed in the NPRM, Division 2.2 compressed gases generally do not pose a security threat sufficient to warrant specific security planning measures. However, oxygen and other oxidizers enhance the combustion of other materials, thereby increasing the likelihood and intensity of a fire or other chemical reaction. At least 7 million tons of oxygen are transported by motor carriers each year. Because of its oxidizing characteristics and the volume transported, we continue to believe that large shipments of oxygen should be subject to security planning requirements. Therefore, in this final rule we are requiring shippers and carriers of oxygen and other Division 2.2 compressed gases with a subsidiary hazard of Division 5.1 oxidizer, in quantities greater than 3,000 L (793 gallons) in a single package or container, to develop and implement security plans. A list of Division 2.2 oxidizing gases that are authorized for transportation in large bulk quantities is provided below.

Proper shipping name	Hazard class	Identification Nos.	Label code
Air, refrigerated liquid, (cryogenic liquid)	2.2	UN1003	2.2, 5.1
Air, refrigerated liquid, (cryogenic liquid) non-pressurized	2.2	UN1003	2.2, 5.1
Compressed gas, oxidizing, n.o.s.	2.2	UN3156	2.2, 5.1
Gas, refrigerated liquid, oxidizing, n.o.s. (cryogenic liquid)	2.2	UN3311	2.2, 5.1
Liquefied gas, oxidizing, n.o.s.	2.2	UN3157	2.2, 5.1
Nitrous oxide	2.2	UN1070	2.2, 5.1
Nitrous oxide, refrigerated liquid	2.2	UN2201	2.2, 5.1
Oxygen, compressed	2.2	UN1072	2.2, 5.1
Oxygen, refrigerated liquid (cryogenic liquid)	2.2	UN1073	2.2, 5.1

4. Materials Poisonous by Inhalation (Division 2.3 and 6.1)

Currently, poison-inhalation-hazard (PIH) materials are subject to security planning requirements when offered for transportation or transported in any quantity. We did not propose to change this requirement in the NPRM.

We received several comments regarding the inclusion of anhydrous ammonia as a Division 2.3 material. The Association of American Railroads (AAR), Utility Solid Waste Activities Group (USWAG), and The Fertilizer Institute (TFI) request clarification of the requirements applicable to anhydrous ammonia. In addition, Dominion asks, "Under what circumstances [do] anhydrous ammonia shipments trigger the security plan requirements."

In proposed § 172.800(b)(6) we state that "any quantity of a material poisonous by inhalation, as defined in § 171.8" is subject to security plan requirements (73 FR 52571). Section 171.8 defines a "material poisonous by inhalation" as a:

(1) Gas meeting the defining criteria in § 173.115(c) and assigned to Hazard Zone A, B, C, or D in accordance with § 173.116(a);

(2) Liquid meeting the defining criteria in § 173.132(a)(1)(iii) and assigned to Hazard Zone A or B in accordance with § 173.133(a); or

(3) Material identified as an inhalation hazard in column 7 of the § 172.101 table.

Anhydrous ammonia meets the definition of a PIH material because it is identified as having an inhalation hazard in column 7 of the Hazardous Materials Table (HMT) and, therefore, is subject to security planning requirements when offered for transportation or transported in any quantity. More generally, we note that many materials, such as those identified by a plus sign in column 1 of the § 172.101 table, pose hazards that are not identified as the primary hazard in column 3 of the HMT. While anhydrous ammonia is classed for domestic transportation as a Division 2.2 material, it does pose a significant inhalation hazard and, thus, should be subjected to safety and security requirements that address that hazard. We note further that by requiring security plans for materials that meet the definition for a material poisonous by inhalation, all materials that exhibit PIH characteristics are covered even if they are not specifically identified in column 3 of the § 172.101 table as Division 2.3 or 6.1 materials. Therefore, whether the material is anhydrous ammonia, boron tribromide, ethyl chlorothioformate, phosphorus oxychloride, or sulfuric acid, for example, it is subject to the security plan requirements under proposed section 172.800(b)(6), at any quantity.

In this final rule, we are maintaining the existing any quantity threshold for PIH materials.

5. Desensitized Explosives (Class 3 and Division 4.1)

Desensitized explosive substances are explosive materials that have been rendered non-explosive, according to the UN Manual of Tests and Criteria, by means of adding a diluting liquid or solid. The diluted substances, once tested and found not in Class 1, are regulated under the HMR as Division 4.1 flammable solids or Class 3 flammable liquids, depending on their physical state and hazardous properties. Currently, security plans are required for shipments of desensitized explosives in quantities that require placarding. In the NPRM, we proposed to require security plans for shipments of any quantity of desensitized explosives because many desensitized explosives can be readily reconstituted into explosive materials.

We received well over 100 comments regarding the proposed security plan threshold for desensitized explosives. Generally, persons involved with special effects for the motion picture industry indicate they do not support changing the current placarding requirement to a requirement that applies to any quantity. Similarly, ASEPO, IME, the American Trucking Associations (ATA), UPS, DGAC, and Canadian Trucking Alliance (CTA) all disagree with the proposed requirement to regulate any quantity of desensitized explosives. IME suggests that the "any quantity" threshold should be reserved for materials that would contribute to the consequences of a direct attack on the transportation conveyance. According to IME, desensitized explosives would not be expected to contribute to the consequences of such an incident. ATA, UPS, and CTA indicate if we require security plans for any quantity of desensitized explosives we should identify specific materials to which the security plan requirements would apply.

As we noted in the NPRM, desensitized explosives have been used in terrorist attacks in the United States and overseas. Urea nitrate, for example, has been used in a number of terrorist attacks, most notably the first vehicle-borne improvised explosive device attack on the World Trade Center in 1993. Moreover, requiring a security plan for any quantity of a desensitized explosive in Class 3 or Division 4.1 is consistent with the UN requirements. In addition, TSA's HSSM list for SAIs has included any quantity of desensitized explosives in Class 3 and Division 4.1 in Packing Group I and lists specific Packing Group II desensitized explosives that are also included. However, after discussing our concerns with TSA and reviewing the comments, we agree with commenters that the "any quantity" threshold for a material that needs further processing to be used in a terrorist attack is an unnecessary burden. Just as we concluded with Division 1.4 materials, the existing placarding threshold is commensurate with the security risk associated with desensitized explosives in Class 3 and Division 4.1. Therefore, in light of comments received from explosives manufacturers, shippers, and carriers, and resulting discussions with TSA, we have decided to maintain the current threshold. Accordingly, in this final rule, desensitized explosives in Class 3 and Division 4.1 are subject to the

security plan requirements in a quantity of 454 kg (1,001 pounds) or more in a single transport vehicle or freight container (see exception in § 172.504(c)).

6. Flammable Liquids (Class 3—Other Than Desensitized Explosives)

Currently, the HMR require security plans for both flammable and combustible liquids when offered for transportation or transported in quantities requiring placarding. In the NPRM, we proposed to require security plans for shipments of 3,000L (793 gallons) or more in a single packaging of any Class 3 material. DGAC opposes subjecting Class 3 materials to the security plan requirements because they can be easily acquired outside of transportation.

As we stated in the NPRM, flammable liquids burn vigorously, giving off large quantities of intense heat. Some may produce flammable atmospheres in confined spaces that, when ignited, could cause significant damage through deflagration or detonation. Class 3 materials could be used in a terrorist attack to trigger a large, intense fire that could cause deaths, injuries, and damage to buildings and infrastructure. To be effective, such an attack would necessarily involve a large quantity of flammable liquid. We disagree with DGAC's comment that flammable liquids should be dropped from security planning entirely. Large quantities of flammable liquids pose a significant security risk that can be mitigated through security planning. However, after consultation with TSA, we have concluded that the security risks associated with Class 3 materials are most significant for large quantities in Packing Groups I and II. Therefore, this final rule requires a security plan for Packing Group I and II flammable liquids in amounts greater than 3,000 L (793 gallons) in a single package or container.

7. Flammable Solids (Division 4.1)

In the NPRM, we proposed to eliminate security plan requirements for flammable solids, except for desensitized explosives in Division 4.1, which we discussed above. There were no comments addressing our proposal. In this final rule, we are adopting the proposal to limit the applicability of security plans to Division 4.1 materials that are desensitized explosives.

8. Spontaneously Combustible Materials (Division 4.2)

Currently, security plans are required for quantities of Division 4.2 materials that require placarding. The NPRM proposed to retain the security plan requirement for shipments of more than 3,000 kg (6,614 lbs.) in a single packaging of Division 4.2 materials in Packing Groups I and II and to eliminate the security plan requirement for Division 4.2 materials in Packing Group III. Only one commenter addressed the proposed threshold for spontaneously combustible materials. DGAC does not agree with our decision to include Division 4.2 materials in Packing Group II. Further, DGAC notes that both the UN and TSA's HSSM list for SAIs have set the threshold at the 3,000 kg (6,614 lbs.) level for Packing Group I materials only.

The UN does set the threshold at 3,000 kg (6614 lbs.) for Packing Group I materials, but TSA's HSSM list includes both Packing Group I and Packing Group II materials. Though we would like to harmonize with the UN requirements when at all possible, the goal of this rulemaking is to ensure that security planning requirements apply to materials that pose a security risk in transportation. DGAC did not provide sufficient reasoning as to why we should require security plans at the Packing Group I level only. Based on our consultations with TSA concerning the security risks associated with the transportation of Division 4.2 materials, this final rule requires security plans for more than 3,000 kg (6,614 lbs.) of Division 4.2 materials in Packing Groups I and II in a single packaging.

9. Dangerous When Wet (Division 4.3)

Currently, the HMR require security plans for shipments of Division 4.3 materials in any quantity. We did not propose to change this requirement in the NPRM.

Very few comments address this issue. DGAC supports the inclusion of Division 4.3 in Packing Group I, but not Division 4.3 materials in Packing Groups II and III. According to DGAC, the amount of flammable gas that would evolve from materials in Packing Groups II and III is likely to be significantly less than propane or a similar flammable gas. CTA, ATA, and UPS indicate that the any quantity threshold is inappropriate and urge PHMSA to consider the 3,000 kg (6,614 lbs.) threshold for Division 4.3 materials. Commenters contend that it is not necessary to include such small amounts of materials that are often commercially available.

Division 4.3 materials are water reactive—they emit flammable or toxic gases upon contact with water. Division 4.3 materials may be of interest to terrorists planning a toxic gas attack on crowded venues like subways, buses, shopping centers, or movie theaters. PHMSA, after consulting with TSA, continues to support the current requirement for security plans for shipments of Division 4.3 materials in any quantity. The any quantity threshold provides an appropriate level of security, given the potential vulnerabilities and risks associated with these materials. Therefore, this final rule continues to require security plans for shipments of any quantity of Division 4.3 materials.

10. Oxidizers (Division 5.1)

Currently, the HMR require security plans for shipments of Division 5.1 materials in quantities that require placarding. In the NPRM, we proposed to require security plans for Division 5.1 materials in Packing Groups I and II when transported in quantities greater than 3,000 L (793 gallons) in a single packaging, and for perchlorates and ammonium nitrate when transported in quantities greater than 3,000 kg (6,614 lbs.) for solids and 3,000 L (793 gallons) for liquids in a single packaging.

Three commenters address this proposal. DGAC contends that Division 5.1 materials in Packing Group II will be relatively ineffective in an attack and proposes that they not be included. TFI and IME ask for clarification of the proposed requirement and its applicability to solid and liquid materials and the threshold quantities for each.

We disagree with DGAC's suggestion that Packing Group II materials are ineffective oxidizers and should be removed from the list of materials requiring a security plan. As we indicated in the NPRM, an oxidizer is a material that may cause or enhance the combustion of other materials, generally by yielding oxygen. Some oxidizers may explode when heated. Division 5.1 oxidizing materials are frequently used as components of IEDs.

TFI and IME are correct that the regulatory text proposed in the NPRM was not clear and should be clarified in the final rule. Therefore, in this final rule we clearly indicate in regulatory text that the security plan requirements apply to Division 5.1 materials in Packing Groups I and II; perchlorates; and ammonium nitrate, ammonium nitrate fertilizers, or ammonium nitrate emulsions, suspensions, or gels in a single packaging, in a quantity greater than 3,000 kg (6,614 lbs.) for solids or 3,000 L (793 gallons) for liquids.

11. Organic Peroxides (Division 5.2)

The HMR currently require security plans for liquid or solid Type B, temperature controlled Division 5.2

organic peroxides transported in any quantity. The NPRM did not propose changes to this requirement. DGAC does not support the inclusion of Division 5.2, Type B materials on the list of materials that require a security plan. DGAC contends that as packaged for transportation these materials will not react dangerously.

PHMSA agrees with DGAC that organic peroxides are packaged in a safe manner, but does not agree that safe packaging adequately ensures that a material is secure during transportation. DGAC did not explain how packaging for Division 5.2, Type B materials makes them more secure than other properly packaged materials. PHMSA, after consulting with TSA, agrees that Division 5.2, Type B materials should be subject to security plan requirements when transported in any quantity. As discussed in the NPRM, organic peroxides are temperature sensitive, self-reacting materials that pose both a fire and explosion hazard, and may be both toxic and corrosive. Type B organic peroxides are the most dangerous organic peroxides permitted in transportation. Organic peroxides were used in the July 2005 terrorist bombings in London, and were planned for use by terrorists plotting to destroy aircraft flying from the United Kingdom to the United States. The current security planning requirement provides an appropriate level of security, given the potential vulnerabilities and risks associated with these materials. In this final rule, we are continuing to require a security plan for any quantity of Division 5.2 organic peroxide, Type B, liquid or solid, temperature controlled, as proposed.

12. Poisonous Materials (Division 6.1—Other Than PIH)

Security plans are currently required for shipments of Division 6.1 materials in quantities that require placarding. In the NPRM, we proposed to require security plans for shipments of Division 6.1, Packing Group I materials in any amount and shipments of 3,000L (793 gallons) or more of Division 6.1, Packing Groups II and III materials. DGAC, ATA, UPS, and CTA all suggest that a single packaging threshold of more than 3,000 kg (6,614 lbs.) for solids or 3,000 L (793 gallons) for liquids for all Division 6.1 materials would be more appropriate than the "any quantity" threshold we proposed for Division 6.1 materials in Packing Group I.

After consultation with TSA and based on the comments we received, we agree that a large bulk quantity threshold for Division 6.1 materials in Packing Group I is more appropriate than the "any quantity" threshold proposed in the NPRM. As we indicated in the NPRM, Division 6.1 materials can be used to contaminate food and water supplies; however, the effectiveness of such an attack would depend on the toxicity level of the material and the quantity utilized. The security risks of these materials, therefore, vary based on the quantity transported. In this final rule, we are adopting a security plan threshold trigger of more than 3,000 kg (6,614 lbs.) for solids or 3,000 L (793 gallons) for liquids for poisonous materials (other than PIH) in Packing Groups I, II, and III.

13. Infectious Substances and Select Agents (Division 6.2)

Currently, the HMR require security plans for shipments in any quantity of Division 6.2 materials that are designated as select agents by the Centers for Disease Control and Prevention and the U.S. Department of Agriculture. The NPRM did not propose to change this requirement. We received very few comments concerning this aspect of the NPRM. ATA agrees that the "any quantity" threshold is appropriate for Division 6.2 materials; DGAC suggests that security plans should only be required for Division 6.2 materials transported in bulk quantities. We note concerning the DGAC comment that select agents typically are not transported in bulk quantities and that even small quantities of these materials may be developed as weapons to cause serious and significant outbreaks of disease in humans and animals. The current security planning requirements provide an appropriate level of security, given the potential vulnerabilities and risks associated with these materials. Therefore, as proposed, this final rule continues to require security plans for select agents or toxins regulated by the Centers for Disease Control and Prevention under 42 CFR Part 73 or the United States Department of Agriculture under 9 CFR Part 121.

14. Radioactive Materials (Class 7)

The current security plan requirements apply to a person who offers for transportation or transports a highway route-controlled quantity (HRCQ) of a Class 7 (radioactive) material. The HMR also require security plans for any shipment that requires placarding under Subpart F of Part 172; this includes shipments of packages with radioactive Yellow III labels and exclusive use shipments of low specific activity material and surface contaminated objects. In the NPRM we proposed to adopt security thresholds as established by the International Atomic Energy Agency (IAEA) for radioactive materials in transport. The levels reflect research conducted by the U.S. Department of Energy, the U.S. Nuclear Regulatory Commission (NRC), and the IAEA on the attractiveness of radionuclides for malevolent use. The changes proposed in the NPRM better address security concerns and align the HMR with international and domestic security requirements. Similarly, TSA's HSSMs list for SAIs has included IAEA Code of Conduct Category 1 and 2 materials including HRCQ quantities as defined in 49 CFR 173.403 or known as radionuclides in forms listed as RAM–QC by the Nuclear Regulatory Commission. Both lists are virtually identical.

Commenters propose enhancements to make the requirements clear, but do not oppose the thresholds proposed in the NPRM. In their comments, AAR and Norfolk Southern Railway Company (Norfolk Southern) suggest that we implement a shipping paper notification requirement on rail shippers to enable easy identification of shipments that exceed the threshold quantity. Another commenter, Louisiana Energy Services, LLC (LES), recommends that PHMSA address the requirement in § 172.505(b) involving transportation restrictions on uranium hexafluoride (UF_6).

With regard to the comments from AAR and Norfolk Southern, we note that the information required to determine if a radioactive material meets the proposed security plan requirements is already available. It is the carrier's responsibility to determine if it has accepted for transportation a quantity of radioactive materials that trigger security plan requirements. In accordance with § 172.203(d), the shipper is already required to include the name of the radionuclide and the activity level contained in each package. From that information, the carrier may calculate the "sum of the fractions" as described in 10 CFR, Appendix P to Part 110—Category 1 and 2 Radioactive Material to determine if the threshold limit has been met. If the calculated "sum of the fractions" ratio is greater than 1 then the shipment exceeds the threshold limit. In addition, of course, a carrier may simply ask the shipper of the material whether the shipment exceeds the threshold limit for which security plans are required. Indeed, shippers and carriers should discuss security planning issues when they make arrangements for transporting any hazardous material.

We agree with LES that security plan requirements should continue to apply to 1,001 pounds (454 kg) or more of UF_6. As a result, we have included a

provision to mandate security plans for quantities of UF_6 at or in excess of 1,001 pounds (454 kg), as provided by § 172.505(b). In addition, we believe that TSA's HSSM list more clearly and effectively lists the materials that should be subject to security planning. As such, we have decided to use similar language in this final rule. In addition to the UF_6 requirement, we specifically indicate that security plans are required for IAEA Code of Conduct Category 1 and 2 materials including HRCQ quantities as defined in 49 CFR 173.403 or known as radionuclides in forms listed as RAM–QC by the Nuclear Regulatory Commission.

15. Corrosive Materials (Class 8)

The HMR currently require security plans for placarded shipments of Class 8 materials in all packing groups. In the NPRM we proposed to retain security plan requirements for shipments of Class 8, Packing Group I materials in a single packaging, in a quantity of 3,000 kg (6,614 lbs.) or more for solids or 3,000 L (793 gallons) or more for liquids. As we indicated in the NPRM, lesser amounts pose little, if any, security risk. There were no comments addressing our proposal. Therefore, this final rule adopts a threshold for Packing Group I corrosive materials in a quantity of greater than 3,000 kg (6,614 lbs.) for solids or 3,000 L (793 gallons) for liquids in a single packaging.

16. Miscellaneous Hazardous Materials (Class 9)

Currently, the HMR require security plans for Class 9 materials transported in a bulk packaging with a capacity equal to or greater than 13,248 L (3,500 gallons) for liquids or gases or greater than 13.24 cubic meters (468 cubic feet) for solids. In the NPRM, we indicated that the security risks associated with the transportation of these materials are not sufficient to warrant development and implementation of security plans and proposed to eliminate this requirement. Comments were supportive of our decision. As a result, this final rule eliminates existing security plan requirements applicable to Class 9 materials.

B. Revisions to Security Plan Requirements

In addition to the changes to the applicability of security plans, the NPRM proposed a number of amendments to clarify and enhance current security requirements, including requirements for security plans and for training. These proposals and corresponding comments are discussed and finalized below.

1. Site-Specific/Location-Specific (§ 172.802(a))

Security plans must include an assessment of possible transportation security risks for the covered materials. In the NPRM we proposed to clarify this requirement by stating that the required risk assessment must include an assessment of the risks that exist on specific routes or in specific locations. Comments submitted varied. Most commenters suggest that requiring a written route assessment for every route or location is unworkable and would seriously impair a carrier's ability to do business. By contrast, commenters such as the Airline Pilots Association, International (ALPA) and National Association of SARA Title III Program Officials (NASTTPO) indicate that the strengthening of the requirements, to include site-specific or location-specific security risks, is a well-advised addition of specificity. However, NASTTPO questions the omission of a requirement for consultation with local emergency planners, law enforcement, or fire departments.

It was not our intent in the NPRM to propose a revision to § 172.802(a) that would alter existing regulations in such a manner that a written security plan, including the risk assessment, would need to address each site or location along a transportation route. Our intent was to clarify that generic security plans that are not specific to a facility or location or corporate security plans that do not address security risks associated with a particular facility or location may not satisfy the risk assessment requirement. For example, it is our understanding that corporations frequently develop security plan templates for use by facilities or entities within the corporation. To meet the risk assessment requirement in § 172.802(a), each entity would need to adapt the corporate security plan template to address site-specific issues or vulnerabilities. Given the confusion expressed by commenters, we are revising the proposed text in this final rule to more clearly state that shippers and carriers must consider site-specific risks and vulnerabilities at facilities subject to the security planning requirement.

2. Identification, Duties, and Training (§ 172.802(b))

In the NPRM we proposed in § 172.802(b)(1) that the security plan identify, by job title, the senior management official responsible for the overall development and implementation of the plan. We proposed in § 172.802(b)(2) that the security plan include security duties for each position or department that is responsible for the plan's implementation and the process for notifying employees when specific elements of the security plan must be implemented. In addition, to ensure that employees are aware of their training obligation by their employer, we proposed in § 172.802(b)(3) that hazmat employers develop a plan for training hazmat employees in accordance with § 172.704 (a)(4) and (a)(5) of this part. One commenter, ALPA, expressed support for the addition of § 172.802(b)(1) through (3). Specifically, the Association welcomes that the proposed language requires "the identification of job title for the responsible management official, security duties identified for each position or department responsible for implementing the plan, and the specifics of required training procedures."

We agree with the commenter, the language proposed in § 172.802(b)(1) through (3) of the NPRM provides necessary clarity and responsibility for compliance with security plan requirements. In this final rule we are adopting § 172.802(b) as proposed.

3. Security Assessment in Writing (§ 172.802(c))

Section 172.802 of the HMR establishes the components that must be included as part of a hazardous materials transportation security plan. Paragraph (a) of this section requires that a security plan include an assessment of possible transportation security risks associated with the hazardous materials covered by the security plan and appropriate measures to address the identified security risks. This assessment is part of the plan and must be in writing and maintained with the plan in accordance with § 172.802(b). Stakeholders have indicated that there is some confusion as to whether the security risk assessment is part of the security plan and if it must be in writing. To clarify concerns, the NPRM proposed language indicating that the security plan, including the security risk assessment, must be in writing and must be retained for as long as the plan remains in effect. One commenter, DGAC, opposes the requirement for assessments to be written, suggesting that written vulnerability assessments provide little to no security benefit and impose a paperwork burden. We disagree with DGAC. The risk assessment is the foundation of a security plan. If the assessment is not in writing, it will be difficult for a company to match the

components of its security plan to the vulnerabilities identified. Moreover, in the absence of a written risk assessment, it will be difficult—if not impossible—for enforcement personnel to determine whether a security plan conforms to HMR requirements.

We note concerning the proposal in the NPRM that the requirement for a risk assessment to be included in the security plan is not a new requirement. We have addressed this and the requirement for plans to be in writing in guidance issued over the last several years. For example, in a February 27, 2004 letter to Mr. Jim Smith (Ref. No. 04–0293; Docket entry PHMSA–06–25885–0175), we clearly stated that a security plan must include an assessment of possible transportation security risks for shipments of the covered hazardous materials and appropriate measures to address the assessed risks. At a minimum, the security plan must address personnel security, unauthorized access, and en route security issues. Similarly, in a May 16, 2007 letter to Ms. Susan Leith (Ref. No. 07–0086; Docket entry PHMSA–06–25885–0176), we agreed with the requester that the security plan must be in writing. We indicated that posting a security plan on a company's intranet that is accessible to company employees on a need-to-know basis and readily printed if necessary would be considered "in writing." In light of stakeholder concerns, this final rule clarifies existing requirements for including the risk assessment as part of the overall security plan by adopting the language proposed in § 172.802(c).

4. Annual Review (§ 172.802(c))

In the NPRM we proposed a requirement for the security plan to be reviewed at least annually and updated if circumstances change (e.g., acquisitions, mergers, operating rights, materials transported, and expanded or reduced service levels). Dominion, Arkema Inc., USWAG, ATA, and NTTC all indicate that the requirement for security plans to be updated as necessary to reflect changing circumstances is sufficient and that it is unclear how requiring annual review increases the effectiveness.

When we adopted the requirement for security plans to be updated as necessary to reflect changing circumstances, our expectation was that plans would be reviewed at least annually and perhaps more often so that they could be updated to reflect changing circumstances. According to stakeholders and PHMSA enforcement personnel, plans are not being reviewed regularly. As a result, plans are not updated. The addition of a requirement for annual review and update to reflect changing circumstances will ensure that shippers and carriers keep abreast of changing conditions that affect the security of the shipments they handle and ensure that security measures in place are appropriate and effective. By their nature, security considerations are always changing and must be continually evaluated at the ground level by offerors and transporters to be effective. Therefore, in this final rule, we are adopting the proposed requirement for the security plan to be reviewed at least annually and updated to reflect changing circumstances.

5. Risk Assessment and Security Plan Documentation (§ 172.802(c) and (d))

In the NPRM we proposed a requirement for the security plan to be made available to employees. Currently, and as proposed in the NPRM, the security plan must include an assessment of transportation security risks. Commenters expressed concern regarding the vulnerabilities that may develop from broad distribution of the entire security plan, especially the risk assessment. In addition, one commenter, Arkema Inc., requests clarification on what is required for a risk assessment—it asks for an example of the methodology that should be used and what should be maintained at the corporate vs. site-specific level.

We agree with commenters that the distribution of security plans to employees without regard to job function and need-to-know, may not be in the best interest of security. Generally, we believe that employees should be involved in the risk assessment process at the onset. Employees should be given the opportunity to discuss security concerns of which they are aware and recommend measures that may be used to address identified risks. However, consistent with personnel security clearance or background check investigation restrictions and demonstrated need-to-know, it is at the discretion of the hazmat employer as to the extent to which employees are granted access to the completed plan. At a minimum, the employees need to be made aware of security changes and activities for which they are responsible. We believe that the language provided in § 172.802(c) of the NPRM is adequate to allow employers to make employees aware of the overall security posture of the company and of their specific security roles and responsibilities, without requiring them to share the entire plan. As a result, we are adopting the language as proposed.

In response to Arkema's request for clarification regarding the requirements for maintaining documentation, current and proposed security plan requirements indicate that the security plan, which includes the risk assessment, must be maintained in writing and for as long as it remains in effect. Each person must maintain the security plan at its principal place of business. Generally, the principal place of business is the location of the head office of a business where the books and records are kept and/or management works. However, for companies that operate more than one site or facility for which security plans are required, the security plan must be readily available to the employees responsible for implementing the plan and must be provided at a reasonable time and location to an authorized official of DOT or TSA and other authorized DHS officials upon request. Therefore, each facility must have the plan on file or have the capability of accessing or receiving the plan from the principal place of business. This final rule adopts the requirement as proposed in the NPRM. Note that for purposes of compliance with this requirement, a shipper or carrier may maintain its security plan electronically, such as on a secure intranet site or CD, so long as it can be accessed by employees responsible for its implementation, printed and distributed as necessary, and provided expeditiously to enforcement personnel upon request.

In response to Arkema's request for an example of the methodology that should be used when conducting risk assessments, we point to the Risk Management Self-Evaluation Framework (RMSEF) on our website. The framework illustrates how risk management methodology can be used to identify points in the transportation process where security procedures should be enhanced within the context of an overall risk management strategy. The RMSEF is posted on our website at the following URL: *http://www.phmsa.dot.gov/hazmat/risk/rmsef.* Other risk assessment tools are equally valid. This final rule does not require persons subject to the security plan requirement to use a specific risk assessment tool to meet the risk assessment requirement. Using risk assessment methodology, a company will select an appropriate level of detail for its security plan based on the assessed risks identified for such material or materials. Factors that may be considered are the type or types of materials transported, the quantity of material transported, the area from or to

which the material is shipped, and the mode of transportation used.

C. Security Training

In the NPRM we proposed to clarify that the in-depth security training requirements in § 172.704(a)(5) apply only to hazmat employees who are directly involved with implementing security plans. Companies that are subject to the security plan requirements in Subpart I of Part 172 are required to provide in-depth training concerning their security plan and its implementation. Additionally, as discussed above, the NPRM proposed to require security plans to be reviewed at least once each year and updated as necessary to reflect changing circumstances. The in-depth security training requirement must be provided to hazmat employees responsible for the plan's implementation once every three years, in accordance with § 172.704(c). To align these requirements the NPRM proposed to require in-depth security training once every three years or, if the security plan is revised during the recurrent training cycle, within 90 days of implementation of the revised security plan. In this way, those hazmat employees responsible for implementing the security plan will be trained in a timely manner concerning any changes or revisions to the plan.

USWAG does not support the provision in proposed § 172.704(c)(2) requiring recurrent training when the security plan is revised. USWAG suggests that we limit the recurrent training to "changes that affect the critical components of the security plan, namely 'unauthorized access' and 'en route security' as identified by § 172.704(a)(2) and (3) and only for those employees affected." Norfolk Southern states, "PHMSA should provide a distinct break between the foregoing first two categories of hazmat employees (those handling hazmat or performing regulated hazmat function) versus key employees who are responsible for implementing a railroad's security plan." Another commenter, AAR states, "in-depth training is appropriate for employees responsible for implementing a security plan." According to AAR, in-depth training is not appropriate for employees who handle the materials or perform a regulated function.

Current language requires each employee of a hazmat employer that has a security plan to be provided in-depth security training. Similarly, we currently require recurrent training when changes are made that impact the hazmat employee's job function. For example, if we publish a new regulation, change an existing regulation, or if an employer revises a security plan, a hazmat employee must be instructed in those new or revised requirements without regard to the three year training cycle. Therefore, the revisions to the training requirements simply clarify existing requirements. In this final rule we are adopting the requirements in § 172.704 as proposed.

D. Other Comments

1. One Time Shipments

The NPRM did not address the concept of one-time shipments. Various commenters support regulatory relief for one-time or first-time shipments of materials that require security plans. One commenter, Dominion, suggests that PHMSA except facilities with "one-time" shipments or events from the security plan requirements and provide a reasonable period of time for new companies to institute security plans. Another commenter, USWAG, requests that we clarify our expectations for "facilities that are faced with two distinct factual scenarios: (i) Where a facility has triggered a security plan threshold but does not expect to trigger any threshold in the future (i.e., 'one-time' event) and (ii) where a facility has triggered a threshold and will likely trigger a security plan threshold in the future."

The security plan requirements apply to any person who offers and/or transports listed hazardous materials in commerce. They have been established to promote the secure transportation of hazardous materials in commerce. It is not practicable to provide a broad exception that waives security plan requirements simply to accommodate one-time shipments of hazardous materials. Therefore, we are not adopting a procedure for one-time shipments in this final rule.

2. Modal Variations

The NPRM did not elaborate on differences in security plans based on the mode of transportation used. One commenter, Dow, suggests that security plan requirements should vary by mode of transportation because security risks will "differ due to the unique aspects of each mode."

We agree with the commenter that security risks may well differ among different modes of transport. Persons who offer for transportation materials for which a security plan is required must assess and address security vulnerabilities for all the modes of transport utilized. The HMR set forth general requirements for a security plan's components rather than a prescriptive list of specific items that must be included. The HMR set a performance standard providing offerors and carriers with the flexibility necessary to develop security plans addressing their individual circumstances and operational environments. Accordingly, each security plan will differ because it will be based on an offeror's or a carrier's individualized assessment of the security risks associated with the specific hazardous materials it ships or transports and its unique circumstances and operational environment.

In the event that additional requirements are deemed to be necessary for specific modes, we will address those through rulemaking. An example of mode specific security plan requirements is the rail routing regulation in § 172.820 of the HMR, which were adopted in an interim final rule published April 16, 2008 (73 FR 20751) and finalized in a final rule published November 26, 2008 (73 FR 72182). The section requires, for a narrow list of materials, rail carriers to collect data on rail transportation routes, analyze the data collected, assess practicable alternative routes, and select the safest and most secure route.[1]

3. Exceptions and IBCs

Three commenters ask for clarification of the applicability of the security plan requirements to materials shipped under exceptions and to residues. Commenters also asked whether security planning requirements apply to hazardous materials transported in IBCs.

The security plan requirements apply to the materials listed in § 172.800(b) as amended by this final rule. Materials shipped in accordance with an exception authorized under the HMR, such as the materials of trade exception in § 173.6, small quantity exceptions in [list the new sections as established in HM–215J], or limited quantity or consumer commodity exceptions, are not subject to security planning requirements. In accordance with § 172.800(b), listed materials offered for transportation or transported at or above the threshold quantity indicated are subject to security plan requirements, including residue quantities in excess of the established thresholds. Materials for which the established threshold is 3,000 L (793 gallons) or 3,000 kg (6,614 lbs.) that are transported in an IBC or other

[1] TSA also requires freight rail carriers and certain facilities handling specified hazardous materials to implement chain of custody and control requirements to ensure a positive and secure exchange of the specified hazardous materials. 49 CFR 1580.107.

packaging with a capacity that is below the established threshold are not subject to security planning requirements.

4. Shipper's Responsibility

Commenters express concern regarding enforcement actions taken against carriers as a result of errors made by shippers. Specifically, in its comments COSTHA requests that PHMSA add language to protect the carrier from enforcement action when a shipper fails to declare a shipment as being subject to the security plan requirement. Similarly, ATA requests the inclusion of a provision indicating that the "transportation of undeclared hazardous materials is not a violation of the HMR, unless the carrier has knowledge that a specific package contained undeclared security sensitive hazardous materials."

It is the carrier's responsibility to develop and implement security plans for materials that it transports that are in excess of the thresholds established by this final rule. We note that in accordance with § 171.2(f) of the HMR, an offeror and carrier may rely on information provided by a previous offeror or carrier unless it knows, or a reasonable person acting in the circumstances and exercising reasonable care would know, that the information provided to them is incorrect. Under section 5123(a)(1) of the Federal hazardous materials transportation law (49 U.S.C. 5101 *et seq.*), a person acts knowingly when the person has actual knowledge of the facts giving rise to the violation; or a reasonable person acting in the circumstances and exercising reasonable care would have that knowledge. While we consider enforcement actions on a case-by-case basis considering the specific circumstances surrounding non-compliance with the regulations, we can say that it is unlikely that we would pursue an enforcement action against a carrier for failure to have a security plan if the carrier relied on information about the shipment provided by a previous offeror or carrier in the transportation chain and the carrier did not know or have reason to believe that the information provided was incorrect.

5. Implementation Timeline

One commenter, Horizon Lines, Inc, suggests that the proposed changes to the security plan will require modification to plans in existence today and requests that enough time be provided for training to be completed without creating an undue burden and expense for industry.

We disagree that the proposed changes to the security plan will require modification to plans in existence today. This final rule narrows the list of materials subject to security plan requirements and provides clarity in areas where the requirements are often misunderstood (e.g., security planning, training, and documentation). This final rule, taken as a whole, reduces the number of persons subject to the regulatory costs and paperwork burden attributable to PHMSA's security planning requirements. It does not increase the training burden or require modification of existing security plans. However, we understand the concerns expressed by Horizon Lines, Inc. As such, we will allow voluntary compliance 30 days after publication of this final rule and extend the effective date to October 1, 2010. This will provide an opportunity for companies to account for any changes they may choose to implement.

IV. Regulatory Analyses and Notices

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

This rulemaking is considered a significant regulatory action under section 3(f) of Executive Order 12866 and the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11032). This final rule was reviewed by the Office of Management and Budget.

Executive Order 12866 requires agencies to regulate in the "most cost-effective manner," to make a "reasoned determination that the benefits of the intended regulation justify its costs," and to develop regulations that "impose the least burden on society." Because this final rule narrows the list of materials for which security plans are required, it will reduce the number of shippers and carriers required to develop security plans in accordance with Subpart I of Part 172 of the HMR. It is estimated that about 10,119 entities will no longer be subject to current security plan and associated in-depth training requirements. The annual benefit resulting from this final rule is estimated to be about $3.6 million–$2.8 million in avoided costs related to development of security plans and $0.8 million in costs savings for associated training. Evaluated over a 15-year period at the standard discount rate of 7%, the estimated net present value of the cost savings is approximately $32.6 million. The regulatory impact assessment is accessible by PHMSA docket number (PHMSA–06–25885) through the Federal eRulemaking Portal (*http://www.regulations.gov*).

B. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria set forth in Executive Order 13132 ("Federalism"). This final rule will preempt State, local and Indian tribe requirements but will not have substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

C. Executive Order 13175

This final rule was analyzed in accordance with the principles and criteria set forth in Executive Order 13175 ("Consultation and Coordination with Indian Tribal Governments"). Because this final rule does not have tribal implications, and does not impose substantial direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply.

D. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities unless the agency determines that a rule is not expected to have a significant impact on a substantial number of small entities. PHMSA has determined that, while the requirements of the final rule would apply to a substantial number of small entities, the economic impact on those small entities would not be substantial, though it would be positive.

As indicated above, about 10,119 entities will be provided relief from current security plan and in-depth training requirements as a result of this final rule. These entities are persons who offer for transportation or transport hazardous materials in commerce. Unless alternative definitions have been established by the agency in consultation with the Small Business Administration (SBA), the definition of "small business" has the same meaning as under the Small Business Act. Since no such special definition has been established, the thresholds published by SBA for industries subject to the HMR are utilized. Fewer than 90% of shippers and carriers affected by the changes in this final rule are small businesses.

Based on an analysis of the potential reduction in cost associated with this final rule, PHMSA concludes that, while the rule applies to a substantial number of small entities, it does not have a significant economic impact on those

small entities. For a small business that will no longer be subject to the security plan requirements and associated in-depth training requirements, the cost savings is between $332 and $437 annually.

E. Paperwork Reduction Act

PHMSA currently has an approved information collection under OMB Control Number 2137–0612, "Hazardous Materials Security Plans" with an expiration date of June 30, 2011. This final rule will result in a decrease in the annual burden and costs under OMB Control Number 2137–0612 due to changes adopted in this final rule to revise the list of materials for which hazardous materials transportation security plans are required.

Under the Paperwork Reduction Act of 1995, no person is required to respond to an information collection unless it has been approved by OMB and displays a valid OMB control number. Pursuant to 5 CFR 1320.8(d), PHMSA is required to provide interested members of the public and affected agencies with an opportunity to comment on information collection and recordkeeping requests. This final rule identifies a revised information collection request that PHMSA will submit to the Office of Management and Budget (OMB) for approval based on the requirements in this final rule.

PHMSA has developed burden estimates to reflect changes in this final rule and estimates that the information collection and recordkeeping burden in this rule would be decreased as follows:

OMB Control No. 2137–0612:

Decrease in Annual Number of Respondents: 10,119

Decrease in Annual Responses: 10,119

Decrease in Annual Burden Hours: 55,655

Decrease in Annual Burden Costs: $2,782,750

Requests for a copy of this information collection should be directed to Deborah Boothe or T. Glenn Foster, Office of Hazardous Materials Standards (PHH–11), Pipeline and Hazardous Materials Safety Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590–0001, Telephone (202) 366–8553.

F. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

G. Unfunded Mandates Reform Act

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $132 million or more to either State, local or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of the rule.

H. Environmental Assessment

The National Environmental Policy Act (NEPA), sections 4321–4375, requires Federal agencies to analyze proposed actions to determine whether the action will have a significant impact on the human environment. The Council on Environmental Quality (CEQ) regulations order Federal agencies to conduct an environmental review considering (1) the need for the proposed action, (2) alternatives to the proposed action, (3) probable environmental impacts of the proposed action and alternatives, and (4) the agencies and persons consulted during the consideration process. 40 CFR 1508.9(b).

Purpose and Need. The current security plan requirements, which became effective on September 25, 2003, apply to shipments of placarded loads of hazardous materials and to select agents. PHMSA has received two petitions for rulemaking requesting a review and reevaluation of the requirements. The petitioners cite several examples of hazardous materials that, based on hazard class and quantity, require placarding under the HMR and, therefore, are subject to security plan requirements. Examples include automobile batteries, inks, paint, and flavoring extracts. Petitioners suggest that it is highly unlikely a terrorist would use such materials to cause loss of life, destruction of property, or damage to the environment.

PHMSA agrees with the petitioners that the list of materials for which security plans are required should be revised. Since 2003, both the industry and the government have had four years of experience in evaluating security risks associated with specific hazardous materials and transportation environments and identifying appropriate measures to address those risks. The revisions made by this final rule are based on an evaluation of possible security threats posed by specific types and classes of hazardous materials and are intended to ensure that the security plan requirement applies only to those materials that present a significant security threat in transportation based on the hazard class and packing group of the material and the quantity or volume transported.

Alternatives. PHMSA considered the following alternatives:

No action—Under this alternative, security plan requirements would continue to apply to shipments of placarded loads of hazardous materials and to select agents, including some materials that do not pose a transportation security risk. This alternative is not risk-based and results in the over-regulation of materials that are not likely to be used in a terrorist or criminal act. This action is not recommended.

Require security plans only for materials subject to FMCSA permit regulations—Under this alternative, security plan requirements would apply only to shipments of hazardous materials subject to safety permit requirements in accordance with FMCSA regulations at 49 CFR Part 385. A safety permit is required for certain shipments of radioactive materials, explosives, PIH materials, and compressed or refrigerated methane or liquefied natural gas. This alternative would not include a number of materials that pose a significant security risk, including flammable gases, flammable liquids, desensitized explosives, dangerous when wet materials, oxidizing materials, organic peroxides, poisons, and select agents. Selection of this alternative could result in significant adverse environmental impacts as a result of a terrorist or criminal action using such materials. This alternative is not recommended.

Adopt UN Recommendations Criteria for Security Plan Requirements—under this alternative, security plans would be required for the materials identified in the UN Recommendations as high consequence dangerous goods—that is, materials with the potential for misuse in a terrorist incident that may produce serious consequences such as mass casualties or mass destruction. The UN list of high consequence dangerous goods includes most of the hazardous materials that pose a significant transportation security risk. The materials that would no longer be subject to security planning requirements are unlikely to be targeted for criminal or terrorist use; therefore, the adverse environmental consequences of this alternative are expected to be minimal. With some modifications, as detailed in this final rule, this is the selected alternative.

Analysis of Environmental Impacts. Hazardous materials are substances that may pose a threat to public safety or the

environment during transportation because of their physical, chemical, or nuclear properties. The hazardous material regulatory system is a risk management system that is prevention-oriented and focused on identifying a safety hazard and reducing the probability and quantity of a hazardous material release. Hazardous materials are categorized by hazard analysis and experience into hazard classes and packing groups. The regulations require each shipper to classify a material in accordance with these hazard classes and packing groups; the process of classifying a hazardous material is itself a form of hazard analysis. Further, the regulations require the shipper to communicate the material's hazards through use of the hazard class, packing group, and proper shipping name on the shipping paper and the use of labels on packages and placards on transport vehicles. Thus the shipping paper, labels, and placards communicate the most significant findings of the shipper's hazard analysis. A hazardous material is assigned to one of three packing groups based upon its degree of hazard—from a high hazard Packing Group I to a low hazard Packing Group III material. The quality, damage resistance, and performance standards of the packaging in each packing group are appropriate for the hazards of the material transported.

Releases of hazardous materials, whether caused by accident or deliberate sabotage, can result in explosions or fires. Radioactive, toxic, infectious, or corrosive hazardous materials can have short or long term exposure effects on humans or the environment. Generally, however, the hazard class definitions are focused on the potential safety hazards associated with a given material or type of material rather than the environmental hazards of such materials.

Under the HMR, hazardous materials may be transported by aircraft, vessel, rail, and highway. The potential for environmental damage or contamination exists when packages of hazardous materials are involved in accidents or en route incidents resulting from cargo shifts, valve failures, package failures, loading, unloading, collisions, handling problems, or deliberate sabotage. The release of hazardous materials can cause the loss of ecological resources and the contamination of air, aquatic environments, and soil. Contamination of soil can lead to the contamination of ground water. For the most part, the adverse environmental impacts associated with releases of most hazardous materials are short-term impacts that can be reduced or eliminated through prompt clean-up/decontamination of the accident scene.

The security plan requirements in Subpart I of Part 172 of the HMR are intended to reduce the potentially catastrophic consequences, including adverse environmental consequences, of a criminal or terrorist incident involving hazardous materials in transportation. A security plan must include an assessment of possible transportation security risks and appropriate measures to address the assessed risks. Specific measures implemented as part of the plan may vary with the level of threat at a particular time. At a minimum, the security plan must address personnel security, unauthorized access, and en route security. For personnel security, the plan must include measures to confirm information provided by job applicants for positions involving access to and handling of the hazardous materials covered by the plan. For unauthorized access, the plan must include measures to address the risk of unauthorized persons gaining access to materials or transport conveyances being prepared for transportation. For en route security, the plan must include measures to address security risks during transportation, including the security of shipments stored temporarily en route to their destinations.

This final rule narrows the list of materials for which a security plan is currently required. It targets the security plan regulations to those materials that pose a significant transportation security risk. It is possible to envision scenarios in which hazardous materials other than those identified in this final rule could be used to inflict serious damage in a terrorist or criminal incident. However, our assessment of the security risks associated with such materials, detailed elsewhere in this preamble, suggests that they are unlikely to be targeted. PHMSA therefore concludes that there are no significant environmental impacts associated with this final rule.

Consultation and Public Comment. As discussed above, PHMSA published an ANPRM and hosted a public meeting to solicit public comments concerning whether the list of materials for which security plans are currently required should be modified. Commenters were asked to address a number of issues related to the identification of materials that pose a security threat sufficient to justify preparation and implementation of a security plan. Thirty-four comments were received from industry associations, shippers, carriers, and private citizens. In addition, six people made presentations at the public meeting.

Issued in Washington, DC, on March 1, 2010, under authority delegated in 49 CFR Part 1.

Cynthia L. Quarterman,

Administrator.

[FR Doc. 2010–4778 Filed 3–8–10; 8:45 am]

BILLING CODE 4910–60–P

(4) Upon being hailed by U.S. Coast Guard patrol personnel by siren, radio, flashing light, or other means, the operator of a vessel must proceed as directed.

(5) The Coast Guard may be assisted by other federal, state, or local agencies.

Dated: March 15, 2010.

T.H. Farris,

Captain, U.S. Coast Guard, Captain of the Port San Diego.

[FR Doc. 2010–6995 Filed 3–29–10; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

44 CFR Part 64

[Docket ID FEMA-2010-0003; Internal Agency Docket No. FEMA-8123]

Suspension of Community Eligibility

Correction

In rule document 2010–6632 beginning on page 14356 in the issue of Thursday, March 25, 2010 make the following corrections:

(1) The department docket number is corrected to read as set forth above.

(2) On page 14357, in the fourth column, under the heading "Current effective map date", the date should read April 5, 2010.

[FR Doc. C1–2010–6632 Filed 3–29–10; 8:45 am]

BILLING CODE 1505–01–D

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Part 107

[Docket No. PHMSA–2009–0201 (HM–208H)]

RIN 2137–AE47

Hazardous Materials Transportation; Registration and Fee Assessment Program

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Final rule.

SUMMARY: PHMSA is amending the statutorily mandated registration and fee assessment program for persons who transport, or offer for transportation, certain categories and quantities of hazardous materials. For those registrants not qualifying as a small business or not-for-profit organization, PHMSA is increasing the annual fee from $975 (plus a $25 administrative fee) to $2,575 (plus a $25 administrative fee) for registration year 2010–2011 and following years. The increase is necessary to fund the national Hazardous Materials Emergency Preparedness (HMEP) grants program at approximately $28,300,000 in accordance with the Administration's Fiscal Year 2010 budget and proposed Fiscal Year 2011 budget.

DATES: Effective date of this final rule is April 29, 2010.

FOR FURTHER INFORMATION CONTACT: Mr. David Donaldson, Office of Hazardous Materials Planning and Analysis, PHMSA, (202) 366–4484, and Ms. Deborah Boothe or Mr. Steven Andrews, Office of Hazardous Materials Standards, PHMSA, (202) 366–8553.

SUPPLEMENTARY INFORMATION:

I. Background

Since 1992, PHMSA has conducted a national registration program under the mandate in 49 U.S.C. 5108 for persons who offer for transportation or transport certain hazardous materials in intrastate, interstate, or foreign commerce. The purposes of the registration program are to gather information about the transportation of hazardous materials, and to fund the Hazardous Materials Emergency Preparedness (HMEP) grants program and additional related activities. *See* 49 U.S.C. 5108(b), 5116, 5128(b). PHMSA may set the annual registration fee between a minimum of $250 and maximum of $3,000. *See* 49 U.S.C. 5108(a)(2), 5108(g)(2)(A).

Since 2006, the annual registration fee has been set at $250 (plus a $25 processing fee) for small businesses and not-for-profit organizations and $975 (plus a $25 processing fee) for all other registrants. *See* 49 CFR 107.612(d). Because PHMSA had accumulated a surplus following a prior adjustment in 2000 (*See* 65 FR 7297, 7309 [Feb. 14, 2000]), notwithstanding a temporary reduction between 2003 and 2006, since Fiscal Year 2008, PHMSA has been able to fully fund the obligation limit of $28,318,000 in the Consolidated Appropriations Act of 2008 (Pub. L. 110–116 [121 Stat. 1295], November 13, 2007), and the Omnibus Appropriations Act, 2009 (Pub. L. 111–8 [123 Stat. 945], March 11, 2009). However, that surplus has now been reduced to $1,500,000, and it is necessary to adjust registration fees in order to collect additional monies in the 2010–2011 and following registration years and fully fund the current authorization and expected budget requests of $28.3 million for Fiscal Years beginning in 2010. This can be done by leaving the annual registration fee at $250 (plus a $25 processing fee) for those persons who are a small business or not-for-profit organization and increasing to $2,575 (plus a $25 processing fee) the annual fee paid by all other persons required to register.

II. Notice of Proposed Rulemaking

On February 2, 2010, PHMSA published a notice of proposed rulemaking (NPRM; 75 FR 5258) to ensure full funding of the HMEP grants program, by proposing an increase in registration fees beginning with the 2010–2011 registration year to fund the program at the $28.3 million level. As explained in the NPRM, since 2006, the annual registration fee has been set at $250 (plus a $25 processing fee) for small businesses and not-for-profit organizations and $975 (plus a $25 processing fee) for all other registrants. *See* 49 CFR 107.612(d). Because PHMSA had accumulated a surplus following a prior adjustment in 2000 (*See* 65 FR 7297, 7309 [Feb. 14, 2000]), notwithstanding a temporary reduction between 2003 and 2006, since Fiscal Year 2008, PHMSA has been able to fully fund the obligation limit of $28,318,000 in the Consolidated Appropriations Act of 2008 (Pub. L. 110–116 [121 Stat. 1295], November 13, 2007), and the Omnibus Appropriations Act, 2009 (Pub. L. 111–8 [123 Stat. 945], March 11, 2009). However, that surplus has now been reduced to $1,500,000, and it is necessary to adjust registration fees in order to collect additional monies in the 2010–2011 and following registration years and fully fund the current authorization in Fiscal Year 2010 and expected budget requests of $28.3 million for future fiscal years. Accordingly, PHMSA proposed to increase the registration fees for persons other than small businesses from $975 (plus $25 processing fee) to $2,975 (plus $25 processing fee) for registration year 2010–2011 and following, in order to maintain the statutorily mandated goal of funding the HMEP grants program activities at approximately $28,300,000.

III. HMEP Grants Program

A. Purpose and Achievements of the HMEP Grants Program

The HMEP grants program, as mandated by 49 U.S.C. 5116, provides Federal financial and technical assistance to States and Indian Tribes to "develop, improve, and carry out emergency plans" within the National Response System and the Emergency

Planning and Community Right-To-Know Act of 1986 (Title III), 42 U.S.C. 11001 *et seq*. The grants are used to: (1) Develop, improve, and implement emergency plans; (2) train public sector hazardous materials emergency response employees to respond to accidents and incidents involving hazardous materials; (3) determine flow patterns of hazardous materials within a State and between States; and (4) determine the need within a State for regional hazardous materials emergency response teams.

The HMEP grants program encourages the growth of the hazardous materials planning and training programs of State, local, and Tribal governments by limiting the Federal funding to 80 percent of the cost a State or Indian Tribe incurs to carry out the activity for which the grant is made. *See* 49 U.S.C. 5116(e). HMEP grants supplement the amount already being provided by the State or Indian Tribe. By accepting an HMEP grant, the State or Tribe makes a commitment to maintain its previous level of support. *See* 49 U.S.C. 5116(a)(2)(A) and 5116(b)(2)(A).

Since 1993, PHMSA has awarded all States and territories and 45 Native American Tribes planning and training grants totaling $203 million. These grants helped to:

- Train 2,420,000 hazardous materials responders;
- Conduct 9,282 commodity flow studies;
- Write or update 55,826 emergency plans;
- Conduct 13,372 emergency response exercises; and
- Assist 25,059 local emergency planning committees (LEPCs) or approximately 1670 per year.

Since the beginning of the program, HMEP program funds have also supported the following related activities in the total amounts indicated:

- $3.4 million for the development and periodic updating of a national curriculum used to train public sector emergency response and preparedness teams. The curriculum guidelines, developed by a committee of Federal, State, and local experts, include criteria for establishing training programs for emergency responders at five progressively higher skill levels: (1) First responder awareness, (2) first responder operations, (3) hazardous materials technician, (4) hazardous materials specialist, and (5) on-scene commander.
- $2.6 million to monitor public sector emergency response planning and training for hazardous materials incidents, and to provide technical assistance to State or Indian Tribe emergency response training and planning for hazardous materials incidents.
- $7.6 million for periodic updating and distribution of the North American Emergency Response Guidebook. This guidebook provides immediate information on initial response to hazardous materials incidents, and is distributed free of charge to the response community.
- $3.5 million for the International Association of Fire Fighters (IAFF) to train instructors to conduct hazardous materials response training programs.

B. Funding of the HMEP Grants Program

An estimated 800,000 shipments of hazardous materials make their way through the national transportation system each day. It is impossible to predict when and where a hazardous materials incident may occur or what the nature of the incident may be. This potential threat requires State and local agencies to develop emergency plans and train emergency responders on the broadest possible scale.

The HMEP training grants are essential for providing adequate training of persons throughout the nation who are responsible for responding to emergencies involving the release of hazardous materials. There are over 2 million emergency responders requiring initial training or periodic recertification training, including 250,000 paid firefighters, 850,000 volunteer firefighters, 725,000 law enforcement officers, and 500,000 emergency medical services (EMS) providers. Due to the high turnover rates of emergency response personnel, there is a continuing need to train a considerable number of recently recruited responders at the most basic level.

In addition, training at more advanced levels is essential to ensure that emergency response personnel are capable of effectively and safely responding to serious releases of hazardous materials. The availability of funding for the HMEP grants program will encourage State, Tribal, and local agencies to provide more advanced training.

The funding for HMEP grants will enable PHMSA to help meet previously unmet needs of State, local and Tribal governments, and public and private trainers by providing for the following activities authorized by law:

- $21,800,000 for training and planning grants;
- A new $4,000,000 grant program for non-profit hazmat employee organizations to train hazmat instructors who will train hazmat employees;
- $1,000,000 for grants to support certain national organizations to train instructors to conduct hazardous materials response training programs, an increase of $750,000;
- $625,000 for revising, publishing, and distributing the North American Emergency Response Guidebook;
- $188,000 for continuing development of a national training curriculum;
- $150,000 for monitoring and technical assistance; and
- $555,000 for administrative support.

IV. Discussion of Comments

PHMSA received 42 sets of comments on the NPRM, from the following individuals and organizations:

Steven Kovacsi (Mr. Kovacsi)
John Q. Counts (Mr. Counts)
Dale Anderson (Mr. Anderson)
Angela Brenwalt and Jenny Carver (Brenwalt and Carver)
The Council on the Safe Transportation of Dangerous Articles, Inc. (COSTHA)
Canadian Trucking Alliance
American Trucking Associations (ATA)
Association of HAZMAT Shippers, Inc. (AHS)
The Institute of Makers of Explosives (IME)
Petroleum Marketers Association of America (PMAA)
New England Fuel Institute (NEFI)
Owner-Operator Independent Drivers Association, Inc. (OOIDA)
Dangerous Goods Advisory Council (DGAC)
Horizon Lines, LLC (Horizon)
Fann Contracting, Inc. (Mr. Fann)
International Vessel Operators Hazardous Materials Association, Inc. (VOHMA)
Alexander & Baldwin, Inc. (A&B)
Cleveland County Local Emergency Planning Committee (CCLEPC)
North Central Florida LEPC
South Florida LEPC
Texas Department of Safety/Emergency Management
Missouri Emergency Response Commission
Oklahoma Hazardous Materials Emergency Response Commission (OHMERC) (two comments)
National Association of SARA Title III Program Officials (NASTPO)
Tulsa County (OK) Local Emergency Planning Committee (LEPC)
Livingston County (MO) LEPC
Garfield County (WA) Fire District #1
Oklahoma County (OK) LEPC
Grand River Dam Authority LEPC
Benton County (MO) Emergency Management
Douglas County (CO) LEPC
Gila County (AZ) LEPC
Ponca City, OK Emergency Management/ LEPC
Jefferson County (IN) LEPC
Jefferson County (CO) LEPC
Garfield County (OK) LEPC
Blaine County (OK) LEPC
Connecticut State Emergency Response Commission (SERC)
Dade County (MO) LEPC

Arizona Emergency Response Commission
Environmental Protection Agency
Utility Solid Waste Activities Group (USWAG)

Commenters from the emergency response community support the proposed fee increase. They state that the HMEP grants are their only source of funding for planning for hazardous materials transportation incidents and training local emergency responders. They note that the high turnover rate for first responders is a significant issue and indicate that increased funding will enable them to ensure that all first responders are trained.

Comments from the regulated community are divided. Some oppose the proposal to increase fees for large businesses and suggest that, in the interest of fairness, the fee increase should be risk based so that higher volume shippers of carriers of hazardous materials bear a higher percentage of proposed fees. Other commenters recommend, again in the interest of fairness, that PHMSA consider an increase in the registration fees paid by small businesses and not-for profit organizations. Commenters also express concern about how funds are allocated and spent, grants to non-profit hazmat employee organizations, and alleged ineffective enforcement of the current registration requirements.

The comments are discussed in more detail below.

A. Support for HMEP Grants and the Registration Fee Increase

A total of 24 State and local government emergency planning and response entities submitted comments on the NPRM. These commenters from the emergency response community support the proposed fee increase. As indicated above, they state that the HMEP grants are their only source of funding for planning for hazardous materials transportation incidents and training local emergency responders. For example, Texas DPS/Emergency Management notes that almost 80% of fire departments in Texas have no paid responders and that volunteers depend on HMEP funding to receive appropriate and up-to-date training. According to Texas DPS/Emergency Management, "HMEP is the only source of hazardous materials training funds for the majority of our fire departments and under the current economical situation is becoming a major source of funding for all of our departments." Similarly, OHMERC states that, throughout most of Oklahoma, the first responders on scene at a transportation incident are local volunteers. "There is no industrial tax base in the surrounding area to support the planning and exercising activities of these dedicated individuals. There is no industry-based training available * * * There are regionally based Hazmat response teams that can provide assistance to local volunteers but their response times may be in excess of 2 hours. * * *" CCLEPC states that it is "heavily dependent upon the money it receives each year through the * * * HMEP grant. Without this source of funding we would be greatly hampered in our ability to carry out our mission. * * *" The Arizona Emergency Response Commission states that "[w]ithin Arizona as with other states, serious financial shortfalls have occurred which greatly affect how much funding will be passed through to the local communities."

These commenters also note that turnover among volunteer firefighters is high, so, in the words of Texas DPS/Emergency Management, "a consistent continual training program is necessary. Volunteer, rural responders need to have the knowledge to protect themselves, the public, and the environment. * * *."

PHMSA believes it is critical to fund local emergency planning and response efforts to the maximum level allowed under the law. Government and industry have a shared responsibility to minimize the consequences of hazardous materials transportation accidents. The possible consequences of a serious incident require that all communities develop response plans and train emergency services, fire, and police personnel to assure an effective response. The importance of planning and training cannot be overemphasized. Small towns and rural communities are served by largely volunteer fire departments and, in many instances, these communities' resources already are overextended in their efforts to meet routine emergency response needs.

B. Basis of Proposed Registration Fee Increase

OIDA, NEFI, and PMAA support the two-tiered registration structure. PMAA states that it is "entirely appropriate and inherently fair that small business registrants pay a significantly lower fee than large HAZMAT offerors * * * Reduced risk should be rewarded with a lower fee." OIDA agrees and adds that small-business motor carriers already pay a "significantly higher per unit cost than their large competitors." OIDA suggests that while a one-truck motor carrier faces a total cost of $275 per unit, a larger carrier with 15,000 trucks would pay the equivalent of 20 cents for each truck in its fleet under the proposed higher fee structure.

VOHMA recommends that fee assessments should be "more equitably determined" based on volumes of hazardous materials transported. "[T]he higher volume carrier[s] who benefit from the revenue of carrying such commodities should bear a higher percentage of the * * * fees." A&B and AHS assert that the current fee structure is unfair because it requires registrants who only occasionally offer for transportation or transport hazardous materials to pay the same fee as registrants who offer or transport hazardous materials as their primary business. VOHMA and Horizon suggest that vessel carriers calling at U.S. ports have "little need" to employ the additional resources of Emergency Response Teams funded through the registration fee program as they already have a "vast listing of reserved parties on call" and further, ships are at sea most of the time. ATA, AHS, Mr. Fann, and IME suggest that before large businesses are asked to absorb a 200 percent fee increase, PHMSA should consider increasing fees paid by small businesses and not-for-profit organizations. Alternatively, AHS and IME suggest that PHMSA consider a fee structure with multiple fee tiers. Further, IME does not agree that large businesses pose a greater risk, and, therefore, should shoulder a greater share of funding for the HMEP grant program. IME suggests that PHMSA institute a waiver process under which businesses that demonstrate that their shipment patterns are similar to those of large not-for-profit entities could qualify to pay at the small business rate. IME also suggests that PHMSA set a cap on total fees paid by subsidiaries of a parent company, stating, "[s]uch qualified relief would accommodate gross inequities resulting from the 'ability-to-pay' approach to financing the HMEP and would interject a dimension to the fee calculation based on risk." ATA suggests that PHMSA consider eliminating certain exceptions to the current registration requirements, including the exception for farmers that transport placarded materials in direct support of the farmer's farming operations. NACD and DGAC recommend a "performance-based fee system" under which entities with poor incident histories and safety records would pay higher fees. USWAG recommends that the fee increase be delayed for at least one more registration year.

Commenters are correct that under Federal hazmat law, PHMSA has the discretion to increase registration fees for both small and large businesses. As

explained in the NPRM, PHMSA considered several alternatives for increasing the funds available for the HMEP grants program. One option was to increase the fee for all businesses offering for transportation or transporting the covered hazardous materials. Another option was to maintain the fee for small businesses and not-for-profit organizations while adjusting the fee for larger businesses. PHMSA continues to believe that this second option is the best approach for meeting our overall objectives for both the registration and HMEP programs. Although there are exceptions, small businesses and not-for-profit organizations generally offer for transportation or transport fewer and smaller hazardous materials shipments as compared to larger companies. Raising the registration fee only for other-than-small businesses rather than for all businesses correlates the fee structure to the level of risk associated with shipments offered for transportation and transported by larger companies. Moreover, increasing the registration fees only for other-than-small businesses will affect significantly fewer entities and will affect entities that can more easily absorb the increase. PHMSA has received approximately 41,000 registrations for the 2008–2009 registration year, and expects approximately the same number for 2009–2010. Small businesses or not-for-profit organizations make up 83%, or 35,025 of the registrants, while large businesses make up 17%, or 6,975 of the registrants.

Since the registration program was first established, PHMSA has considered, and rejected, methods for apportioning registration fees among registrants according to various approximations of the risk imposed. For example, in Docket No. HM–208B, there were overwhelming objections to basing registration fees on risk factors such as the hazard characteristics of specific classes of materials and the consequences of a release during transportation; the quantity of materials shipped or transported, including the type and size of containers (including vehicles); and the number of shipments offered or transported. The agency concluded that trying to distinguish among distinct levels of risk would require the imposition of a complicated system that would necessarily involve significant recordkeeping burdens on the regulated public (60 FR 5822). PHMSA remains convinced that even the simplest of the suggested alternative fee structures would impose significant cost burdens. As a further example, the creation of a third level based on a "waiver" for registrants that do not meet the criteria for a small business but engage in limited hazardous materials activities could impose a greater expense on the registrant to maintain the necessary records to prove its level of activity than the cost of the registration fee. PHMSA believes that the current two-tiered fee schedule based on SBA criteria is the most equitable, simple, and enforceable method for determining and collecting registration fees. The two-tiered fee schedule distributes registration fees according to a well-established measurement of business size and ensures the collection of sufficient funds to support the HMEP grants program at an enhanced level.

C. Oversight and Accountability

ATA, AHS, PMAA, and IME suggest that PHMSA should provide greater oversight and accountability on how the HMEP grant funds are allocated and used. IME questions PHMSA's enforcement of the registration program and suggests that the two-tier system complicates rather than simplifies enforcement efforts. IME also questions PHMSA's data on the number of emergency plans and LEPCs supported by the HMEP grant funds and suggests that training grants are in greater need of funding. IME states, "given the plethora of other viable alternatives to address the needs of the response community, the HMEP is at best inconsequential, and in retrospect, a program that has outlived its relevance and usefulness as a stand alone resource."

In 2008, PHMSA received approval from the Office of Management and Budget (OMB) to collect more detailed information from HMEP grantees to enable the agency more accurately to evaluate the effectiveness of the grant program in meeting emergency response planning and training needs (73 FR 39780). PHMSA is now collecting that detailed information. In addition, the agency is hiring additional staff to provide an enhanced HMEP oversight capability. The HMEP grant program was established over 15 years ago and has continued with few changes since its initial implementation. HMEP grantees have used program funds to train first responders; conduct commodity flow studies; write or update emergency plans; conduct emergency response exercises; and assist local emergency planning committees. Few other resources are available to accomplish these tasks. PHMSA recognizes that, because the HMEP grant program is funded by registration fees paid by hazardous materials shippers and carriers, it is incumbent on the agency administering the grant program as well as the grantees themselves to ascertain that the program is accountable to those who fund it and is as effective as possible in meeting its emergency response planning and training goals.

The information provided by the grantees will provide data to evaluate emergency response planning and training programs conducted by States and Indian Tribes. The development of accurate output information will also summarize the achievements of the HMEP grant program. The information PHMSA seeks from grantees will enhance emergency response preparedness and response by allowing the agency and its State and Tribal partners to target gaps in current planning and training efforts and focus on strategies that have been proven to be effective. PHMSA notes in this regard the comments from NASTPO and OHMERC that "one size does not fit all when it comes to community preparedness." OHMERC states that it is working with grantees to establish priorities and outcome metrics so that program effectiveness can be demonstrated. NASTPO as well states that it is working to address the effectiveness of the HMEP program, including its accountability.

PHMSA believes that funding for both planning and training is critical to the local emergency responders' capability of dealing with hazardous materials transportation incidents. The emergency response community has stressed that rural communities depend on volunteers and their ability to plan, train and exercise for a wide range of potential events. To ensure effective emergency response, communities must continually revise plans, repeat training, and conduct exercises. As NASTPO notes, community preparedness and emergency planning is "a process, not an end point." An effective planning organization will routinely evaluate and update its emergency response plans to account for changing circumstances and conditions.

D. Grants to Non-Profit Hazmat Employee Organizations

DGAC and IME oppose the use of registration fees to fund the training grants authorized under § 5107(e) of Federal hazmat law. IME asserts that this $4 million training program is a double taxation for hazmat employee training since employees trained by third parties would still need to meet the specific and specialized training each company is responsible for

providing under the Hazardous Materials Regulations, and that, "using industry fees for this purpose cannot be justified." DGAC contends that the program does not have industry support and suggests that PHMSA has not explained how, and for what purpose, it plans to use the training grant funds.

According to the law, training grant funds awarded to an organization may be used to train hazmat instructors and, to the extent determined to be appropriate, for such instructors to train hazmat employees. Grant funds are not authorized to fund an organization's existing hazmat training program. The program is open to non-profit hazardous materials employee organizations demonstrating: (1) Expertise in conducting a training program for hazmat employees, and (2) ability to reach a target population of hazmat employees. For the purposes of the grants program, an employee organization is a labor union, association, group, or similar organization the members of which are hazardous materials employees and the stated purpose of which is to represent hazmat employees. Hazmat employees include self-employed persons, including owner-operators of motor vehicles; vessel or aircraft crewmembers and employees; railroad signalmen; and maintenance-of-way employees. Due to budget and other limitations, many hazmat employees cannot leave their employment locations for extended periods of time to attend training courses. Instructors trained under this grant program can offer training to a large number of hazmat employees at locations within close proximity to the hazmat employees' places of employment, thereby significantly minimizing employee travel cost and training time. PHMSA believes the statutorily mandated training grants will benefit the transportation industry by providing this much needed hazmat training.

E. Rising Transportation Costs

COSTHA, NACD, Mr. Fann, Horizon, and VOHMA ask PHMSA to take into consideration the current state of the economy and the high costs of transportation in setting registration fees. These commenters suggest that increasing registration fees will impose additional hardships on businesses already struggling with rising costs. COSTHA notes that the economy is "still in flux after suffering one of the largest recessions in 40 years" and requests a reconsideration of the fee increase in light of current economic conditions. VOHMA requests that PHMSA "consider the fact that vessel operators use large quantities of petroleum fuels and are finding it increasingly difficult to remain competitive and efficient in this costly energy environment." Horizon notes that it is "faced with rising and unstable fuel expenses coupled with weather related delays, damages, and a weak economy" which all affect its ability to operate profitably. Mr. Kovacsi states that in the current economy, "this whopping increase is totally inappropriate when so many drivers are already out of work due to poor revenues by their employers." Mr. Fann states that "[b]usinesses are suffering through these hard times also by having to make cut backs, watch expenses and find less expensive alternatives to their way of doing business." Several commenters note as well that adoption of the proposals in the final rule will require many businesses to incur unbudgeted expenses during the current calendar year.

PHMSA recognizes the concerns of industry relating to the increasing costs of energy and transportation. However, these costs affect many industries, as well as consumers and emergency responders. PHMSA believes that increasing energy and transportation costs reinforce the need to fully fund the HMEP grants program. State emergency planners and responders continue to indicate that these HMEP grants are the only source of funds they receive to fund the continuing need for emergency response planning and training.

F. Surplus in HMEP Grants Fund

Commenters, including COSTHA, NPGA, Mr. Anderson, Mr. Counts, and IME, express concern that the increase in registration fees will result in a surplus in the HMEP grants account. For example, IME contends that "PHMSA is again embarking on a path to generate millions of dollars in excess of the amount authorized." NPGA suggests that "it is conceivable that a surplus could exist in a very short period of time."

As already discussed, the past surplus enabled PHMSA to temporarily reduce registration fees for all persons during the 2003–2006 period. Further, as discussed in the NPRM, in part because of accumulated surpluses, PHMSA was able to fully fund the HMEP program at its authorized limit of $28,318,000 for FY 2009. However, that surplus has now been reduced to $1.5 million. PHMSA estimates that without the proposed increase in fees, the agency will be approximately $8 million short of the authorized grant obligations to be made in 2010. Further, PHMSA has received approximately 2,000 (6%) fewer registrations for the 2008–2009 registration year than for 2007–2008. The number of registrations for the 2009–2010 registration year has only slightly increased over the number for 2008–2009 at this time last year. This may be due to the current economic conditions, even though PHMSA has been aggressively addressing entities who have failed to register.

G. Enforcement of Registration Fee Requirements

COSTHA, IME, AHS, and VOHMA express concern about the industry's compliance with and PHMSA's enforcement of the registration fee requirements. IME states that it has "long questioned PHMSA's ability to provide credible enforcement of the two-tiered registration requirement" and suggests that, extrapolating from a five percent non-compliance rate and using PHMSA's registration statistics, "over $1.5 million in revenue will annually be forgone." Similarly, VOHMA questions whether all entities that are subject to the registration and fee assessment requirements are actually in compliance and recommends that PHMSA "place more emphasis on enforcement of the registration requirements to ensure that all persons subject to these requirements have filed the applicable forms and paid the fees. * * *"

PHMSA takes its responsibility to ensure compliance with the registration requirements very seriously. Integrated as part of every compliance inspection and incident investigation, PHMSA aggressively enforces the requirements for Hazardous Materials Registration. The agency also instituted a nationwide surveillance and compliance operation that identifies, enforces, and collects the unpaid fees of persons (in active status) who have failed to renew or file for registration. In 2009, for example, PHMSA cited 120 companies for registration violations and levied $60,810 in penalties. An additional 23 companies were issued warning letters or are awaiting determination of an appropriate penalty.

H. Multi-Year Registrations

PHMSA allows a person to register for up to three years in one registration statement (49 CFR 107.612(c)). As discussed in the NPRM, PHMSA has received approximately 2,100 advance registrations for the 2010–2011 registration year from other-than-small businesses that have paid the fee previously established for those years. Approximately 1,250 also included advance registrations for the 2011–2012 registration year. PHMSA applies fees according to the fee structure ultimately established by regulation for the

registration year rather than according to the fee set at the time of payment. Thus, when PHMSA adopts an increase in registration fees, additional payments are required for registrations paid in advance at the lower levels in effect at the time of payment.

NPGA recommends that PHMSA clarify that any business that has paid a multi-year registration fee prior to the effective date of this final rule should be deemed as having registered with the agency and not be subject to any form of violation related to non-registration as a result of the difference in the fee structure between the time of the original registration and this final rule. NACD also recommends that any difference between the new fee and prepaid fees should be assessed in the first subsequent registration year for which the fee has yet to be paid.

PHMSA cannot agree to permit multi-year registrants to postpone payment of the increased registration fee until the first subsequent registration year for which the fee has yet to be paid. In order to ensure full funding of the HMEP grants, PHMSA must account for registration fees in the year they are due. PHMSA does not expend monies collected through multi-year registrations until the year for which they were paid. Further, when PHMSA lowered the fees for all registrants in 2003, PHMSA provided more than 7,100 refunds amounting to over $2.3 million within the first year to registrants who had overpaid the newly established fees. However, PHMSA agrees that enforcement action should not be initiated against entities that registered in good faith and paid the fee in effect at the time of registration provided they remit the difference between the fee originally paid and the new registration fee in a timely manner. PHMSA will notify each registrant who will be required to pay additional fees for the 2010–2011 and following registration years.

V. Provisions of This Final Rule

PHMSA shares commenters' concern that the agency should only collect an amount of registration fees necessary to fully fund the HMEP program without the accumulation of a surplus. PHMSA also recognizes the challenging business environment in which hazardous materials shippers and carriers operate. After consideration of the comments received in response to the NPRM, PHMSA re-examined its estimates for funding the HMEP grants program based on updated information from the Department of Treasury on the HMEP account carry-over balance, de-obligations of unused grant and administrative funds, increased enforcement of the registration requirements, and current registrant data. Based on this re-examination, PHMSA has concluded that it will be able to fund the HMEP grants program at the $28.3 million level in Fiscal Year 2010 and for future years with a smaller increase in registration fees than was proposed in the NPRM. For those registrants not qualifying as a small business or not-for-profit organization, the fee will increase to $2,575 (plus a $25 administrative fee) for the 2010–2011 registration year and following years. For registrants qualifying as a small business or not-for-profit organization, the fee will remain at its current level of $250 (plus a $25 administrative fee). This fee increase will fund the HMEP grants program at approximately $28.3 million in accordance with the Administration's Fiscal Year 2010 budget proposal. The cost to industry of increasing registration fees will be approximately $14 million per year. The increased funding for the HMEP grants program will provide essential training to persons throughout the nation who are responsible for responding to emergencies involving the release of hazardous materials. In addition, training at more advanced levels is essential to assure emergency response personnel are capable of effectively and safely responding to serious releases of hazardous materials. The increased funding for the HMEP grants will enable us to help meet previously unmet needs of State, local and Tribal governments by providing more adequate funding.

In addition, PHMSA is adopting the proposal in the NPRM to revise § 107.612 to remove information on previous years' registration fees. This fee information is no longer needed. Information on fees in effect for registration years 1992–1993 to 2009–2010 is available in the registration brochure, previous editions of the CFR, and on the registration Web site (*http://www.phmsa.dot.gov/hazmat/registration*). Note that persons subject to registration requirements must pay the annual registration fee, including the processing fee, in effect for the specific registration year for which the person is submitting registration information.

VI. Rulemaking Analyses and Notices

A. Statutory/Legal Authority for This Rulemaking

This final rule is published under the authority of the Federal hazardous materials transportation law (Federal hazmat law; 49 U.S.C. 5101 *et seq.*). Section 5108 of the Federal hazmat law authorizes the Secretary of Transportation to establish a registration program to collect fees to fund HMEP grants. The HMEP grants program, as mandated by 49 U.S.C. 5116, authorizes Federal financial and technical assistance to States and Indian Tribes to "develop, improve, and carry out emergency plans" within the National Response System and the Emergency Planning and Community Right-To-Know Act of 1986 (Title III), 42 U.S.C. 11001 *et seq.*

The Federal hazmat law makes available funding for the HMEP grants program at approximately $28,300,000, and directs PHMSA to establish an annual registration fee between a minimum of $250 and a maximum of $3,000.

B. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is not considered a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, was not subject to formal review by the Office of Management and Budget. This final rule is considered non-significant under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034).

The cost to industry of increasing registration fees will be an additional $14 million per year. The funding for the HMEP grants program will provide essential training of persons throughout the nation who are responsible for responding to emergencies involving the release of hazardous materials. In addition, training at more advanced levels is essential to assure emergency response personnel are capable of effectively and safely responding to serious releases of hazardous materials. The funding for the HMEP grants will enable PHMSA to help meet previously unmet needs of State, local and Tribal governments, and public and private trainers by providing funding for activities such as: (1) Planning and training grants for local emergency planning committees; (2) a new program for non-profit hazmat employee organizations to train hazmat instructors that will train hazmat employees; (3) support to certain national organizations to train instructors to conduct hazardous materials response training programs; (4) revising, publishing, and distributing the North American Emergency Response Guidebook; (5) continuing development of a national training curriculum; and (6) monitoring and technical assistance.

While the safety benefits resulting from improved emergency response

programs are difficult to quantify, PHMSA believes these benefits significantly outweigh the annual cost of funding the grants program. The importance of planning and training cannot be overemphasized. To a great extent, we are a nation of small towns and rural communities served by largely volunteer fire departments. In many instances, communities' response resources already are overextended in their efforts to meet routine emergency response needs. The planning and training programs funded by the HMEP grants program enable State and local emergency responders to respond quickly and appropriately to hazardous materials transportation accidents, thereby mitigating potential loss of life and property and environmental damage. The regulatory evaluation to the final rule issued under Docket HM–208 (57 FR 30620) showed that the benefits to the public and to the industry from the emergency response grant program would at least equal, and likely exceed, the annual cost of funding the grant program. Based on estimates of annual damages and losses resulting from hazardous materials transportation accidents, the analysis concluded that the HMEP program would be cost-beneficial if it were only 3% effective in reducing either the frequency or severity of the consequences of hazardous materials transportation accidents. Achieving this level of effectiveness is well within the success rates of training and planning programs to reduce errors and increase the proficiency and productivity of response personnel. A regulatory evaluation for this final rule is available for review in the public docket.

C. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (Federalism). There is no preemption of State fees on transporting hazardous materials that meet the conditions of 49 U.S.C. 5125(f). This final rule does not impose any regulation having substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

D. Executive Order 13175

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments). Because this final rule does not have adverse Tribal implications and does not impose direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply.

E. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies

The Regulatory Flexibility Act (5 U.S.C. 601–611) requires each agency to analyze regulations and assess their impact on small businesses and other small entities to determine whether the rule is expected to have a significant impact on a substantial number of small entities. The provisions of this rule apply specifically to businesses not falling within the small entities category. Therefore, PHMSA certifies this rule would not have a significant economic impact on a substantial number of small entities.

F. Unfunded Mandates Reform Act of 1995

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $141.3 million or more, in the aggregate, to any of the following: State, local, or Native American Tribal governments, or the private sector.

G. Paperwork Reduction Act

Under 49 U.S.C. 5108(i), the information management requirements of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*) do not apply to this final rule.

H. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document may be used to cross-reference this action with the Unified Agenda.

I. Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321–4347), requires Federal agencies to consider the consequences of major Federal actions and prepare a detailed statement on actions significantly affecting the quality of the human environment. There are no significant environmental impacts associated with this final rule. PHMSA is amending the requirements in the Hazardous Materials Regulations on the registration and fee assessment program for persons who transport or offer for transportation certain categories and quantities of hazardous materials. The increase in registration fees will provide additional funding for the HMEP program to help mitigate the safety and environmental consequences of hazardous materials transportation accidents.

J. Privacy Act

Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comments (or signing the comment, if submitted on behalf of an association, business, labor union, *etc.*). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78) or you may visit *http://www.regulations.gov.*

Issued in Washington, DC, on March 24, under authority delegated in 49 CFR part 1.

Cynthia L. Quarterman,

Administrator.

[FR Doc. 2010–7035 Filed 3–29–10; 8:45 am]

BILLING CODE 4910–60–P

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 571

[Docket No. NHTSA 2009–0175]

RIN 2127–AK62

Federal Motor Vehicle Safety Standards; Air Brake Systems

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation.

ACTION: Final rule; correcting amendments.

SUMMARY: In July 2009, NHTSA published a final rule that amended the Federal motor vehicle safety standard for air brake systems by requiring substantial improvements in stopping distance performance. In November 2009, the agency published a final rule that provided a partial response to petitions for reconsideration of the earlier rule. Today's document corrects errors in the November 2009 final rule.

DATES: This rule is effective April 29, 2010.

FOR FURTHER INFORMATION CONTACT: For non-legal issues, you may call Mr. Jeff Woods, Office of Crash Avoidance Standards (Telephone: 202–366–5274) (Fax: 202–366–7002). For legal issues, you may call Mr. Edward Glancy, Office of Chief Counsel (Telephone: 202–366–2992). You may send mail to these officials at the National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., West Building, Washington, DC 20590.

SUPPLEMENTARY INFORMATION: On July 27, 2009, NHSTA published a final rule [1] in the **Federal Register** (74 FR 37122) amending Federal Motor Vehicle Safety Standard (FMVSS) No. 121, Air *Brake Systems,* to require improved stopping distance performance for truck tractors. The agency provided two years of lead time for typical three-axle tractors, which comprise approximately 82 percent of the truck tractor fleet. The agency concluded that other types of tractors, which are produced in far fewer numbers and may require additional work to fully develop improved brake systems and also to ensure vehicle control and stability while braking, would require more lead time, and the agency provided four years for these vehicles to comply with the new stopping distance requirements.

NHTSA received eight petitions for reconsideration to the July 2009 final rule. The petitions were submitted by manufacturers of truck tractors, an association of truck manufacturers, and heavy truck brake component manufacturers.

On November 13, 2009, NHTSA published in the **Federal Register** (74 FR 58562) a final rule; partial response to petitions for reconsideration.[2] One of the issues we addressed in that document was how typical three-axle tractors should be defined for purposes of determining whether a three axle tractor is subject to the upgraded requirements with two years of leadtime rather than a longer period. In that document, we explained that we intended to limit the definition of typical three axle tractors to those that have a steer axle GAWR of 14,600 pounds or less and a combined drive axle GAWR of 45,000 pounds or less.[3]

The Truck Manufacturers Association (TMA) submitted a petition for reconsideration of the November 2009 final rule, citing an issue that it believed to be an error. TMA noted that the agency used the term "rear axles" instead of "rear drive axles" in two portions of the regulatory text defining the typical three axle tractors subject to the upgraded requirements with two years of leadtime rather than a longer period. TMA stated that based strictly on the regulatory text using the term "rear axles," certain three-axle tractors with one driven rear axle and one non-driven rear axle (a 6x2 tractor configuration) may fall under the two-year leadtime implementation date for the new requirements. That organization stated that 6x2 tractors are specialty vehicles that are manufactured in low volumes. TMA noted statements in the preamble referring to drive axles. TMA requested that the agency revise S5 and the title of Table IIa to use the term "rear drive axles."

NHTSA has reviewed TMA's submission and agrees that the omission of the word "drive" in S5 and the title heading of Table IIa was an error. We are correcting FMVSS No. 121 by adding the word "drive" in those locations.

List of Subjects in 49 CFR Part 571

Imports, Motor vehicle safety, Motor vehicles, Rubber and rubber products, and Tires.

■ Accordingly, 49 CFR part 571 is corrected by making the following correcting amendments:

PART 571—FEDERAL MOTOR VEHICLE SAFETY STANDARDS

■ 1. The authority citation for part 571 of title 49 continues to read as follows:

Authority: 49 U.S.C. 322, 30111, 30115, 30117, and 30166; delegation of authority at 49 CFR 1.50.

■ 2. Section 571.121 is amended by revising S5 and Table IIa to read as follows:

§ 571.121 Standard No. 121; Air brake systems.

* * * * *

S5. *Requirements.* Each vehicle shall meet the following requirements under the conditions specified in S6. However, at the option of the manufacturer, the following vehicles may meet the stopping distance requirements specified in Table IIa instead of Table II: Three-axle tractors with a front axle that has a GAWR of 14,600 pounds or less, and with two rear drive axles that have a combined GAWR of 45,000 pounds or less, that are manufactured before August 1, 2011; and all other tractors that are manufactured before August 1, 2013.

* * * * *

[1] Docket # NHTSA–2009–0083

[2] Docket # NHTSA–2009–0175.

[3] 74 FR at 58564.

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 107, 171, 172, 173, 176, 177, 179, and 180

[Docket No. PHMSA–2010–0195 (HM–244C)]

RIN 2137–AE61

Hazardous Materials: Minor Editorial Corrections and Clarifications

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Final rule.

SUMMARY: This final rule corrects editorial errors, makes minor regulatory changes and, in response to requests for clarification, improves the clarity of certain provisions in the Hazardous Materials Regulations. The intended effect of this rule is to enhance the accuracy and reduce misunderstandings of the regulations. The amendments contained in this rule are non-substantive changes and do not impose new requirements.

DATES: *Effective Date:* October 1, 2010.

FOR FURTHER INFORMATION CONTACT: Deborah Boothe, Office of Hazardous Materials Standards, 202–366–8553, PHMSA, East Building, PHH–10, 1200 New Jersey Avenue, SE., Washington, DC 20590.

SUPPLEMENTARY INFORMATION:

I. Background

The Pipeline and Hazardous Materials Safety Administration (PHMSA) annually reviews the Hazardous Materials Regulations (HMR; 49 CFR parts 171–180) to identify typographical and other errors, outdated addresses or other contact information, and similar errors. In this final rule, we are correcting typographical errors, incorrect CFR references and citations, inconsistent use of terminology, misstatements of certain regulatory requirements and inadvertent omissions of information. Because these amendments do not impose new requirements, notice and public comment procedures are unnecessary. By making these amendments effective without the customary 30-day delay following publication, the changes will appear in the next revision of the 49 CFR.

II. Section by Section Review

The following is a summary by section of the minor editorial corrections and clarifications made in this final rule. The summary does not include minor editorial corrections such as punctuation errors or similar minor revisions.

Part 107

Section 107.117

This section sets forth conditions and procedures for emergency processing for an application for a special permit. The daytime telephone number for the Federal Motor Carrier Administration in paragraph (d)(3) is no longer correct. Accordingly, we are revising this contact number.

Section 107.329

This section sets forth the maximum and minimum civil penalties for violations of the Federal hazardous material transportation law, 49 U.S.C. 5101 *et seq.,* and violations of regulations issued pursuant to that law. Those maximum and minimum penalties were most recently adjusted on December 29, 2009 (74 FR 68701) to consider the effects of inflation since reauthorization of the Federal hazardous material transportation law in August 2005. We found that the inflation adjustment in the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. 2461 note) (the Act)—the change in the CPI–U over the prescribed period—was 12.5%, but that the Act limited the adjustment of the maximum and minimum civil penalties to 10%. These adjusted maximum and minimum civil penalties apply to any violation occurring on or after January 1, 2010.

More recently, it has been called to our attention that we did not apply the "rounding" requirement in Section 5 of the Act in making adjustments to the minimum civil penalty amounts. Applying the 12.5% increase in the CPI–U to the $450 minimum penalty for a violation related to training produces an increase of $56.25, which would be rounded to $100—except for the limitation in the Act that the initial adjustment may not exceed 10%. Thus, the adjusted minimum penalty of $495 for a violation related to training was correct. However, when the $250 minimum penalty amount for other violations is increased by 12.5%, the result would be an increase of $31.25, which must be rounded to the nearest $100—or $0. Thus, we should have left the minimum civil penalty for other violations at $250. Accordingly, we are correcting this error in both § 107.329 and § 171.1(g). PHMSA does not believe that the improper $275 civil penalty amount has been used in any enforcement case arising out of

violations that occurred on or after January 1, 2010, and we will continue to use the proper $250 amount in such enforcement cases that have arisen since that date.

Part 171

Section 171.6

Section 171.6 consolidates and displays the control numbers assigned to the HMR collections of information by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995. This section complies with the requirements of 5 CFR 1320.7(f), 1320.12, 1320.13 and 1320.14 (OMB regulations implementing the Paperwork Reduction Act of 1995) for the display of control numbers assigned by OMB to collections of information of the HMR. In paragraph (b)(2), the table of OMB control numbers is revised to update affected sections for OMB control numbers 2137–0022 and 2137–0572.

Section 171.7

Paragraph (b) of § 171.7 lists materials that are "informational materials not requiring incorporation by reference" into the HMR. In the preamble to the HM–244A final rule published in the **Federal Register** on October 1, 2008 (73 FR 57001), we stated that the Compressed Gas Association's (CGA) publication CGA C–1.1, Personnel Training and Certification Guidelines for Cylinder Requalification By the Volumetric Expansion Method, could be used as guidance material to assist cylinder requalifiers in setting up their training procedures and was not to be considered as a stand alone tool for training persons on how to perform requalification of cylinders using the volumetric expansion test method. In that final rule, we also stated we were removing the entries in §§ 171.7(b) and 180.205(g)(6) that refer to the publication. However, due to an oversight, the amendatory language was inadvertently omitted. Therefore, in this final rule, we are removing the entry for CGA C–1.1 from § 171.7(b) and paragraph (g)(6) from § 180.205.

Part 172

Section 172.101

This section contains the Hazardous Materials Table (HMT) and explanatory text for each of the columns in the table. Some of the information for the entry "Helium, compressed, UN1046" in the HMT was reported under the incorrect columns. In this final rule, we are revising the entry "Helium, compressed, UN1046" by correcting the information reported in columns 5, 6, 7, 8a, 8b, and 9a.

Section 172.604

This section prescribes requirements for providing the emergency response telephone number on hazardous materials shipping papers. As amended in the final rule, "Revision of Requirements for Emergency Response Telephone Numbers," HM–206F, published October 19, 2009 (74 FR 53413), we are correcting § 172.604(b)(1) by adding the word "information" to the phrase "emergency response provider" so that it reads "emergency response information provider (ERI provider)." In the October 19, 2009 final rule, the word "information" was inadvertently omitted during the printing of the regulatory text.

In paragraphs (b)(1) and (b)(2), we are clarifying the term "contract number" by adding the wording "or other unique identifier assigned by the ERI provider" to clarify that the term "contract number" identifies the registrant to the ERI provider. This clarification should serve to avoid confusion when an ERI provider may be using the term "contract number" for another purpose.

In paragraph (b)(2), we are also clarifying that the person who is registered with the emergency response provider must be identified by name or contract number on the shipping paper immediately before, after, above, or below the emergency response telephone number in a prominent, readily identifiable, and clearly visible manner that allows the information to be easily and quickly found unless the name or identifier is entered elsewhere in a prominent manner in accordance with paragraph (b)(1).

Section 172.800

This section prescribes hazardous materials security plan requirements. In a final rule, "Risk-Based Adjustment of Transportation Security Plan Requirements," HM–232F, published March 9, 2010 (75 FR 10974), there were three drafting errors. First, we indicated that "the security planning requirement will apply, as it does now, to all Division 1.4 explosives transported in quantities that require placarding under Subpart F of Part 172 of the HMR." However, in the regulatory text to the final rule we referenced § 172.504(c) in place of Subpart F of Part 172. As a result, the changes may be interpreted to require placards for certain Division 1.4S materials that fall under § 172.504(f)(6). This was not our intent. Second, we indicated, in the final rule, that the security planning requirement for desensitized explosives in Class 3 and Division 4.1 would apply to quantities that require placarding under § 172.504(c). This reference is not clear and is inconsistent with previous references to "quantities that require placarding under the provisions of Subpart F of Part 172." Therefore, to clarify the first two errors, we are revising § 172.800(b)(2) and (b)(7) to remove the reference to "§ 172.504(c)" and replacing it to read "subpart F of this part."

The third error is closely related to the first two errors. We indicated, in the final rule, that the security planning requirements for Division 4.3 materials would continue to require security plans for "any quantity" of Division 4.3 materials. Again, this reference is not clear and is inconsistent with previous references to "quantities that require placarding under the provisions of Subpart F of Part 172." Therefore, to correct this error we are revising § 172.800(b)(9) to read "any quantity of a Division 4.3 material requiring placarding in accordance with subpart F of this part," as intended in the final rule to HM–232F.

Part 173

Section 173.27

This section specifies general requirements for packaging hazardous materials for transportation by aircraft. The reference to § 171.11 in paragraph (f) is no longer valid. Therefore, PHMSA is correcting this error by revising paragraph (f) to remove the reference to § 171.11 and replacing it with a reference to § 171.22.

Section 173.171

This section prescribes requirements for smokeless powder for small arms. The entry "Smokeless powder for small arms (100 pounds or less)," NA3178 is only applicable to U.S. transportation as indicated by the "D" in column 1 of the HMT. Therefore, in § 173.171, the introductory text is revised to clarify that the provisions of this section applies to domestic transportation only.

Section 173.314

This section prescribes requirements for transporting compressed gases in tank cars and multi-unit tank cars. For the entry "Chlorine," column 2 of the table entitled "Outage and filling limits" refers to "Note 13". There is no "Note 13." To correct this error, the reference to "Note 13" in column 2 of the table, is removed. In addition, for the entries "Hydrogen Sulphide" and "Hydrogen sulphide, liquefied" column 1 of the table reflects the international spelling while the proper shipping name entries

in the § 172.101 HMT reflect the domestic spelling of "Hydrogen sulfide." Both spellings are authorized in accordance with § 172.101(c)(1). However, we are revising the entries in the § 173.314 table to read "Hydrogen Sulfide" and "Hydrogen sulfide, liquefied" to be consistent with the spelling in the § 172.101 HMT.

Part 176

Section 176.54

This section prescribes requirements for repairs involving welding, burning, and power-actuated tools and appliances. We are revising paragraph (b)(1) to correct the reference to 33 CFR 126.15(c) to read 33 CFR 126.30.

Part 177

Section 177.843

This section prescribes requirements for surveying for contamination on motor vehicles used to transport Class 7 radioactive materials under exclusive use conditions. We are revising paragraph (a) to correct the reference to "§ 173.427(b)(3) or (c) or § 173.443(c)" to read "§ 173.427(b)(4) or (c) or § 173.443(c)" to correct a typographical error.

Part 179

Appendix B

49 CFR part 179, appendix B prescribes procedure for the "Simulated Pool and Torch Fire Test." PHMSA is correcting an error in the pool and torch fire test requirements. The conversion that was used to establish the tolerances for the flame temperatures was incorrect. A temperature conversion was made. However, a factor of 1.8 should have been used to convert between degrees Fahrenheit and degrees Celsius. The temperature requirements should read 871 °C (1600 °F) +/− 55.6 °C (132.08 °F).

Part 180

Section 180.213

This section prescribes requirements for requalification markings for cylinders.

We are revising paragraph (d)(2) to correct the reference to § 173.301(l) to read § 171.23(a)(4).

III. Regulatory Analyses and Notices

A. Statutory Authority

This final rule is published under authority of 49 U.S.C. 5103(b), which authorizes the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce. The purpose of this final rule is to remove unnecessary cross references to the hazardous materials table, correct mailing addresses, grammatical and typographical errors, and, in response to requests for clarification, improve the clarity of certain provisions in the Hazardous Materials Regulations.

B. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is not considered a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, was not reviewed by the Office of Management and Budget. This rule is not significant under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034). This final rule does not impose new or revised requirements for hazardous materials shippers or carriers; therefore, it is not necessary to prepare a regulatory impact analysis.

C. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria in Executive Order 13132 ("Federalism"). This final rule does not adopt any regulation that: (1) Has substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government; or (2) imposes substantial direct compliance costs on State and local governments. PHMSA is not aware of any State, local, or Indian Tribe requirements that would be preempted by correcting editorial errors and making minor regulatory changes. This final rule does not have sufficient federalism impacts to warrant the preparation of a federalism assessment.

D. Executive Order 13175

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13175 ("Consultation and Coordination with Indian Tribal Governments"). Because this final rule does not have Tribal implications, does not impose substantial direct compliance costs on Indian Tribal governments, and does not preempt Tribal law, the funding and consultation requirements of Executive Order 13175 do not apply, and a Tribal summary impact statement is not required.

E. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies

I certify that this final rule will not have a significant economic impact on a substantial number of small entities. This rule makes minor editorial changes which will not impose any new requirements on persons subject to the HMR; thus, there are no direct or indirect adverse economic impacts for small units of government, businesses, or other organizations.

F. Unfunded Mandates Reform Act of 1995

This rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $141.3 million or more to either State, local, or Tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objectives of the rule.

G. Paperwork Reduction Act

There are no new information collection requirements in this final rule.

H. Environmental Impact Analysis

There are no environmental impacts associated with this final rule.

I. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

Issued in Washington, DC, on August 26, 2010 under authority delegated in 49 CFR part 1.

Cynthia L. Quarterman,

Administrator, Pipeline and Hazardous Materials Safety Administration.

[FR Doc. 2010–21759 Filed 8–31–10; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 171, 173, and 178

[Docket No. PHMSA–06–25736 (HM–231)]

RIN 2137–AD89

Hazardous Material; Miscellaneous Packaging Amendments

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Final rule.

SUMMARY: On February 2, 2010, the Pipeline and Hazardous Materials Safety Administration published a final rule amending the Hazardous Materials Regulations to: Revise several packaging related definitions; add provisions to allow more flexibility when preparing and transmitting closure instructions, including conditions under which closure instructions may be transmitted electronically; add a requirement for shippers to retain packaging closure instructions; incorporate new language that allows for a practicable means of stenciling the United Nations (UN) symbol on packagings; and clarify a requirement to document the methodology used when determining whether a change in packaging configuration requires retesting as a new design or may be considered a variation of a previously tested design. The February 2 final rule also incorporated requirements for the construction, maintenance, and use of Large Packagings. This final rule responds to one petition for reconsideration and four appeals submitted in response to the February 2 final rule and also corrects several errors that occurred in that rulemaking.

DATES: *Effective Date:* October 1, 2010.

Voluntary Compliance Date: Compliance with the requirements adopted herein is authorized as of September 30, 2010. However, persons voluntarily complying with these regulations should be aware that appeals may be received and as a result of PHMSA's evaluation of these appeals, the amendments adopted in this final rule correction may be revised accordingly.

FOR FURTHER INFORMATION CONTACT: Eileen Edmonson, Office of Hazardous Materials Standards, (202) 366–8553, or Ben Moore, Office of Hazardous Materials Technology, (202) 366–4545; Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey

Avenue, SE., Washington, DC 20590–0001.

SUPPLEMENTARY INFORMATION:

I. Background

On February 2, 2010, PHMSA published a final rule under Docket No. PHMSA–06–25736 (HM–231) (75 FR 5376) to: Revise several packaging related definitions; add provisions to allow more flexibility when preparing and transmitting closure instructions, including conditions under which closure instructions may be transmitted electronically; add a requirement for shippers to retain packaging closure instructions; incorporate new language that allows for a practicable means of stenciling the "UN" symbol on packagings; and clarify a requirement to document the methodology used when determining whether a change in packaging configuration requires retesting as a new design or may be considered a variation of a previously tested design under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171–180). The February 2 final rule also incorporated requirements for the construction, maintenance, and use of Large Packagings harmonizing these packaging requirements with those issued under the United Nations Recommendations on the Transport of Dangerous Goods. This final rule corrects several errors in the February 2 final rule and also responds to four appeals and one petition for reconsideration. Because these amendments do not impose new requirements, notice and public comment procedures are unnecessary.

II. Petition for Rulemaking and Appeals to the Final Rule

In response to the February 2 final rule, PHMSA received one petition for rulemaking from the International Vessel Operators Dangerous Goods Association (IVODGA), and four appeals to the final rule from the following companies or organizations: American Promotional Events, Inc. (APE); Association of American Railroads (AAR); Dangerous Goods Advisory Council (DGAC); and the Reusable Industrial Packaging Association (RIPA). All object to certain requirements adopted in the February 2 final rule. Specifically, they request that PHMSA: (1) Eliminate the minimum thickness requirements for remanufactured steel and plastic drums; (2) reinstate the previous definition for "bulk packaging" to retain the phrase "no intermediate form of containment;" (3) revise the compliance date for maintaining closure instructions to align with a packaging's retest date; and (4) eliminate the vibration testing requirement for UN standard Large Packagings.

A. Bulk Packaging Definition

The February 2 final rule removed the phrase "no intermediate form of containment" from the introductory language of the bulk packaging definition contained in § 171.8. PHMSA developed this definition as a modification of the definition for bulk packagings proposed in the Notice of Proposed Rulemaking (NPRM; September 1, 2006 (71 FR 52017)) to clarify that Large Packagings that contain inner packagings are considered bulk packagings under the HMR. This change placed a greater emphasis on packaging design and volumetric capacity, and was developed in part based on a petition from the Monsanto Company (P–1173). In the NPRM, the definition for a bulk packaging was proposed to read a "Bulk packaging means: (1) Any specification cargo tank, tank car, or portable tank constructed and marked in accordance with Part 178 of this subchapter; (2) Any DOT Specification 3AX, 3AAX or 3T cylinder constructed, marked and certified in accordance with Subpart C of Part 178 of this subchapter; or (3) Any industrial Packaging, Type A, Type B, Intermediate Bulk Container [IBC], Large Packaging, or non-specification packaging that has a volumetric capacity of greater than 450 L (119 gallons)."

The DGAC, AAR, and IVODGA object to this definition as adopted in the February 2 final rule stating that the adopted language was not proposed in the NPRM; therefore, interested parties had no opportunity to comment on the proposal, which is contrary to the Administrative Procedure Act (APA). They also state under the revised definition that a transport vehicle (*e.g.,* a railroad box car, dry goods truck, or semitrailer) containing non-bulk hazardous materials packages may be considered a bulk packaging.

The September 1, 2006 NPRM definition for "bulk packaging" did not include the phrase "no intermediate form of containment." Therefore, interested parties were given an opportunity to comment in response to the NPRM on the possible effect the removal of this phrase would have on the proposed bulk packaging definition. Further, in response to the petition for reconsideration and four appeals, we are clarifying that a Large Packaging with one or more inner packagings or articles is also a bulk packaging. Thus, in § 171.8 we are reinstating the phrase "no intermediate form of containment" in the bulk packaging definition, and permitting Large Packagings that contain articles or inner packagings to be defined as bulk packagings. We may consider amendments to this definition in a future rulemaking.

B. Non-Bulk Packaging Definition

PHMSA proposed in the NPRM to revise the non-bulk packaging definition to eliminate the maximum capacity, gross mass, and water capacity limits for non-bulk packagings. Specifically, the NPRM proposed to define the term as follows: A "Non-bulk packaging means (1) any packaging constructed, marked, tested and certified as meeting the standards specified in Subparts L and M of Part 178 of this subchapter; (2) except for Specifications 3AX, 3AAX and 3T, any Specification cylinder constructed, marked and certified in accordance with subpart C of part 178 of this subchapter; and (3) any Industrial Packaging, Type A, Type B, Intermediate Bulk Container, Large Packaging, or non-specification packaging that has a volumetric capacity of 450 liters (119 gallons) or less." In response to the NPRM, the DGAC and APE request PHMSA remove the definitions for bulk and non-bulk packaging from the HMR. The DGAC states the delineations were arbitrary and the terms no longer served a useful purpose in regulation. The APE states in its experience these terms were no longer used in international regulations, were detrimental to the United States (U.S.) transportation industry, and offered no safety benefits. Other commenters to the NPRM found the removal of the volumetric requirements from the definitions more confusing for determining the application of markings, labels, and placards, and were concerned the absence of this information may present a hazard communication problem for emergency responders in that it may interfere with them discovering a large amount of hazardous material during an incident. These commenters were also concerned that the removal of the volumetric requirements may possibly cause the distinction between IBCs and drums to disappear. For example, IBCs and drums have distinctly different handling requirements. IBCs, by definition, require mechanical handling for movement, which is not the case for non-bulk packagings such as drums. Changes in the volumetric capacities of these packagings may result in compromises in handling safety. Therefore, PHMSA did not adopt in § 171.8 the non-bulk packaging definition as proposed in the NPRM.

In its appeal to the February 2 final rule, the APE requests PHMSA define a non-bulk packaging for solids based on

a net mass limit of 400 kg and without the 450 L limitation. The APE states this packaging is an undefined category—neither bulk nor non-bulk, but there is no safety basis for excluding its use, and this packaging was already authorized under PHMSA approval number CA 2006030023. The APE also states such packagings are common for transporting consumer fireworks; an example would be a fiberboard box with a low net mass of 75 kg but with a capacity in excess of 450 L. Further, the APE states this size packaging issue does not arise in the UN Recommendations on the Transport of Dangerous Goods (UN Recommendations).

PHMSA agrees with the appellants that (1) the HMR do not define packagings for solids with a net mass of 400 kg or less (non-bulk) but a net capacity that exceeds 450 L, and packagings with a net mass that exceeds 400 kg (bulk) but a net capacity that does not exceed 450 L; (2) that many of the international requirements for bulk and non-bulk packagings do not contain these quantity limits; and (3) packagings that meet the HMR's performance standards should be considered authorized packagings. However, we also recognize that many factors concerning these size limits serve an important function in delineating packaging types and performance testing in the U.S. Design and testing of packages that fall within these sizes may not adequately account for the handling characteristics that such large and heavy packagings may require.Therefore, we are not revising the definition in § 171.8 for a non-bulk packaging at this time, but will consider this issue more fully for a future rulemaking.

C. Compliance Date for Package Closure Instructions

The February 2 final rule revised § 178.2(c) to require a packaging manufacturer or other person certifying a packaging's compliance with 49 CFR Part 178, and each subsequent distributor of that packaging, to notify each person the packaging is transferred to of all the requirements regarding the packaging that are not met at the time of transfer. Each person who receives these written instructions must retain a copy for 365 days from the date of issuance. This notification may be in writing, stored electronically, including e-mail transmissions or on a CD or similar device. Federal hazmat law defines a "person" as including "a government, Indian tribe, or authority of a government or tribe that—(i) offers hazardous material for transportation in commerce; (ii) transports hazardous material to further a commercial enterprise; or (iii) designs, manufactures, fabricates, inspects, marks, maintains, reconditions, repairs, or tests a package, container, or packaging component that is represented, marked, certified, or sold as qualified for use in transporting hazardous materials in commerce * * *." *See* 49 U.S.C. 5102(9); *see* also 49 CFR 171.8.

The DGAC states PHMSA misconstrued DGAC's comments to the NPRM concerning closure instructions. In its appeal, the DGAC states packagings may require retesting or updated test reports to ensure closure instructions are consistent and repeatable with the manner in which these packagings were closed when tested. It also states completing packaging retesting before the October 1, 2010 effective date of the final rule could be costly and time consuming. The DGAC recommends adopting a two-year transition period for retaining closure instructions to align with the current two-year periodic retesting required for combination packagings and a one-year transition period for single packagings.

We agree with the appellant that adopting a closure instruction retention period that aligns with the periodic retesting requirements for the packaging would make it easier for the manufacturer and each subsequent distributor of the packaging to comply with this requirement. We also agree that making this change is appropriate given that this requirement was intended to provide additional flexibility to packaging manufacturers. Therefore, in this final rule, we are revising the amount of time required for retaining packaging closure instructions prescribed in § 178.2(c)(1)(ii) to align with a packaging's periodic retest date. We are also clarifying language in § 173.22(a)(4) to clearly state that additional requirements concerning closure instruction retention, including the time period required, are prescribed in § 178.2(c).

D. Minimum Thickness Requirement for Remanufactured Steel and Plastic Drums

PHMSA added the phrase "or remanufactured for reuse" to the third sentences in § 173.28(a) and (f), respectively, which require steel and plastic drums to meet the minimum thickness requirements for reusable packagings. In their appeals, the DGAC and RIPA object to this revision stating that Part 178 specification requirements for steel or plastic manufactured or remanufactured drums do not include minimum thicknesses and reconditioning, which is a form of reuse that has not applied to remanufactured packagings for many years. They also state a remanufactured drum is much like a new drum marked for single use in that it must be tested, regardless of thickness, to demonstrate compliance with the applicable performance requirements for its design, and it cannot be reused or reconditioned. The appellants also state if this provision were to go into effect, remanufactured drums not meeting minimum thickness requirements will have to be taken out of service and scrapped, which would cause the premature disposal of packagings that are still otherwise useful.

We agree with the appellants that this change may be misleading. PHMSA recognizes the current HMR minimum thickness requirements apply to packagings for reuse and reconditioning, and not to remanufactured packagings. We also recognize a remanufactured packaging, regardless of thickness, must be tested to demonstrate compliance with performance requirements. This differs from the requirements for reuse and reconditioning where the packaging is not subject to performance requirements as a new design type before reuse or reconditioning. Therefore, in this final rule, PHMSA is revising § 173.28(a) and (f) to remove the phrase "or remanufactured for reuse" to clarify that this requirement does not apply to remanufactured packagings.

E. Vibration Testing for Large Packaging

PHMSA added a vibration performance test in § 178.985 for UN standard Large Packagings to promote the integrity of these packagings in transportation. The DGAC and APE object to this provision in their appeals. Both state that PHMSA erroneously stated Large Packagings would contain hazardous materials without an intermediate packaging, but Large Packagings are designed to contain inner packagings, making them essentially combination packagings that should comply with § 173.24a(a)(5). The appellants state that PHMSA provided no safety justification for the additional test, and that this change decreases harmonization with international standards as the vibration test is not included in international standards for these packagings. The appellants also question why PHMSA would submit a paper to the UN Committee of Experts to permit hazard class Division 1.1D, 1.4G, and 1.4S explosives in Large Packagings but not take this into account when preparing the Docket No. PHMSA–06–25736 (HM–231) final rule.

On its own initiative, PHMSA added the vibration test for Large Packagings, other than for flexible Large Packagings, in the final rule because, as PHMSA stated in the final rule, the similarity of the Large Packaging's design to an IBC subjected it to similar packaging design stresses and opportunities for failure. Further, PHMSA believes, based on historical experience with the vibration test, that the test is an essential component for assessing the integrity of an IBC packaging. Therefore, the test is equally valid for assessing the integrity of a Large Packaging, regardless of whether the Large Packaging is used as a single or combination packaging. In addition, the NPRM's regulatory language did provide for the placement of articles or inner packagings in Large Packagings. However, these provisions were erroneously omitted in the February 2 final rule. Therefore, we are revising the language in § 178.985(a) regarding the vibration test for Large Packagings to state these packagings must be capable of passing the vibration test, and clarifying that Large Packagings that contain inner packagings are bulk packagings.

PHMSA agrees with the appellants that the vibration test is not currently required internationally for Large Packagings. In December 2006, PHMSA submitted a proposal (No. 2006/98) to the 30th session of the UN Sub-Committee of Experts on the Transport of Dangerous Goods (Sub-Committee) (the proposal is available at: *http://www.unece.org/trans/doc/2006/ac10c3/ST-SG-AC10-C3-2006-98e.pdf*) to incorporate into the UN Recommendations U.S.-issued competent authority approvals that permit Division 1.4G (UN 0336) and Division 1.4S (UN 0337) consumer fireworks to be transported in fiberboard and wood Large Packagings. This proposal was based on the existing test provisions for these packagings. PHMSA's intent in this proposal was to add a Large Packaging authorization, not to amend the Large Packaging test requirements. At that time, the vibration test was not yet required for IBCs, but we were working with the Sub-Committee during that session to add the vibration test for composite IBCs (*see* Canadian paper (2006/78); the proposal is available at: *http://www.unece.org/trans/doc/2006/ac10c3/ST-SG-AC10-C3-2006-78e.pdf*). PHMSA's intent was to add the vibration test to the composite IBC packaging first, and then consider what other packaging types it should apply to.

PHMSA withdrew the proposal before it was considered by the Sub-Committee and decided not to pursue it further at a future meeting because we believed the information we received initially from industry in support of the proposal was not sufficiently complete and may be inaccurate. After further review, we also decided the proposal as written at that time was not appropriate as a regulation to be made available for general use by incorporating it into the UN Recommendations. Therefore, the Sub-Committee never considered a proposal from the U.S. to add a Large Packaging authorization for identification number UN 0336 and UN 0337 fireworks. The Sub-Committee document noting this withdrawal is available at: *http://www.unece.org/trans/doc/2006/ac10c3/UN-SCETDG-30-INF01e.pdf.*

Finally, on April 1, 2010, the U.S. submitted a working paper (No. ST/SG/AC.10/C.3/2010/32) for the consideration of the UN Committee of Experts entitled "Vibration test for large packagings" that asks the Committee to add the vibration testing for all Large Packaging intended to contain liquids. A copy of this paper is available in the docket for this final rule at *http://www.regulations.gov.*

F. Minimum Puncture Resistance for UN 50G Fiberboard Large Packagings

The February 2 final rule added two puncture-resistant construction requirements under § 178.930 for rigid fiberboard UN 50 Large Packagings. The first, in § 178.930 (b)(1)(i), states the walls of the packaging, including the top and bottom, must have a minimum puncture resistance of 15 Joules (11 foot-pounds of energy) measured according to the testing standards prescribed in the International Organization for Standardization (ISO) 3036–1975(E) Board—Determination of Puncture Resistance, which is incorporated by reference in § 171.7 of the HMR. The second, in § 178.930 (b)(1)(ii), includes a requirement that metal staples used to fasten a Large Packaging be formed or protected so that any inner lining cannot be abraded or punctured by them. PHMSA added these requirements to reduce the likelihood that sharp or protruding objects will puncture these packagings.

The APE opposes the ISO standard of puncture resistance for fiberboard Large Packagings, stating the 15 Joules puncture-resistance requirement introduces significant additional costs that foreign competitors, who may import fireworks into the U.S. in packagings of comparable mass and volume, are not required to comply with. The APE also states heavier fiberboard would be needed to satisfy this requirement, and this additional weight may reduce the amount of material that can be placed in a packaging on a truck. The APE also states PHMSA in the past issued an approval, CA number not provided, that required a 5 Joules puncture resistance for fiberboard packagings and requests that this standard be applied to the fiberboard Large Packaging as well. We believe the commenter may be referring to Competent Authority Approval number CA 2006030023. This competent authority permits APE to offer for transportation Division 1.4G (UN 0336) and Division 1.4S (UN 0337) fireworks in UN 50G Large Packagings that conform to the UN Recommendations construction standards for these packagings except that the walls, including the top and bottom of the packaging, must pass a puncture resistance of 5 Joules instead of 15 Joules required for all other packagings of this type. Additional packaging requirements also apply. A copy of the approval is available under the "Approvals Search" link at: *http://www.phmsa.dot.gov/hazmat/regs/sp-a/approvals.* Finally, the APE asserts that PHMSA did not adequately consider its concerns pertaining to this requirement in its comments to the NPRM.

We agree with the appellant that the reduction in puncture resistance from 15 to 5 Joules the appellant is requesting for fiberboard UN 50G Large Packagings is adequate for the hazard class, weight, and type of the hazardous materials permitted under this approval. However, we disagree that this provision should be applied to all Large Packagings in other types of hazardous materials service. For example, the ability of a fiberboard packaging to resist further tearing when punctured may be crucial to its survivability when it contains materials that are heavier than fireworks, which typically are lightweight when compared to their volume, or when it contains materials that can disperse easily, such as those in grain or powder form, or liquids in inner packagings. Therefore, we will continue to authorize fiberboard Large Packagings that pass a 5 Joule puncture-resistance test under the terms of an approval based on our determination of its ability to transport a specific type of hazardous material safely in transportation. To determine whether other types of hazardous materials may be safely transported in a 5 Joule puncture-resistant fiberboard Large Packaging, we may consider this issue and the possibility of allowing the use of this type of packaging under the

terms of a Special Provision prescribed in § 172.102 in a future rulemaking.

E. Miscellenous Corrections

1. Editorial Corrections for Large Packagings

In the February 2 final rule, PHMSA added standards for constructing and testing Large Packagings, represented by the code designation "UN 50" (rigid) or "UN 51" (flexible), but did not consistently revise the references in the HMR to reflect this change. In this rulemaking, we are revising the definition in § 171.8, and the references in § 173.197 to correctly identify that the Large Packaging standards and testing provisions in the HMR are now prescribed in 49 CFR Part 178, Subparts P and Q. These corrections will clarify that an approval from the Associate Administrator for Hazardous Materials Safety is no longer needed to construct and test a UN 50 or UN 51 Large Packaging.

2. Section Numbers

PHMSA renumbered several sections pertaining to Large Packagings in the February 2 final rule to consolidate these requirements into sections that occur in the "§ 178.900" series, beginning with § 178.900 and ending with § 178.985. However, we did not discuss this change in the preamble. In addition, several section numbers that appeared in the final rule's regulatory text were not revised to reflect these changes, and some existing sections numbers were referenced incorrectly. These editorial changes are summarized below.

Section 178.503(e)(1)(i) was incorrectly referred to as § 178.3(e)(1)(i) in § 178.503(e)(1)(ii)(D) in the February 2 final rule. This error is corrected in this final rule.

Section 178.902 was renumbered § 178.905; § 178.903 was renumbered § 178.910; § 178.905 was renumbered § 178.920; § 178.906 was renumbered § 178.925; § 178.907 was renumbered § 178.930; § 178.908 was renumbered § 178.935; § 178.909 was renumbered § 178.940, § 178.1001 was renumbered § 178.950 in the February 2 final rule.

In § 178.910, the reference in paragraph (a)(1)(ii) containing the identification codes for a Large Packaging design type was incorrectly described in the NPRM and February 2 final rule as § 178.901. This section was designated as § 178.902 in the NPRM, and renumbered § 178.905 in the February 2 final rule. Therefore, in § 178.910(a)(1)(ii), the reference to § 178.901 is renumbered § 178.905. Also in § 178.910(a)(1)(ii), the reference to the section containing the general requirements for testing Large Packagings was incorrectly described in the NPRM and February 2 final rule as § 178.1001. Therefore, § 178.1001 is renumbered § 178.955 in this final rule.

In § 178.915(e), the "p" in packaging was placed erroneously in lower case. In addition, the bottom- and top-lift testing sections for Large Packagings were renumbered § 178.970 and § 178.975, respectively, in the February 2 final rule but were incorrectly described in § 178.915(e) as § 178.1004 and § 178.1005. These errors are also being corrected in this final rule.

In the February 2 final rule, the sections that prescribe rigid plastic and flexible Large Packaging standards were renumbered § 178.925 and § 178.940, respectively, but were incorrectly described in § 178.955(c)(5)(ii) as § 178.906 and § 178.909. Also, in the February 2 final rule, § 178.1001 was renumbered § 178.955, § 178.1002 was renumbered § 178.960, and § 178.1015 was renumbered § 178.980. However, the references in § 178.965(a) and (b) to § 178.955 and § 178.960 were incorrectly described as §§ 178.1001 and 178.1002, respectively, and the reference in § 178.980(d) to § 178.980(c) was incorrectly described as § 178.1015(c).

These errors are being corrected in this final rule.

Section 178.1019 was renumbered § 178.985 in the February 2 final rule.

3. Punctuation Errors

In § 178.601(g)(8)(xiii)(C), the comma placed erroneously before the parenthetic phrase is removed, and the quotation mark used as a symbolic representation for the word "inches" after the numbers 0.625 was replaced with the word "inches." In § 178.601(g)(8)(xiii)(D), the period placed erroneously after the word "thickness" is replaced with a comma.

V. Rulemaking Analysis and Notices

A. Statutory/Legal Authority for this Rulemaking

This final rule is published under authority of 49 U.S.C. 5103(b), which authorizes the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous materials in intrastate, interstate, and foreign commerce. This final rule responds to one petition for reconsideration and four appeals, and corrects several errors in the February 2, 2010 final rule. The petition and appeals are available for review in the public docket for this rulemaking.

B. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is a non-significant regulatory action under section 3(f) of Executive Order 12866 and was not reviewed by the Office of Management and Budget. This final rule is considered non-significant under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034). The revisions adopted in this final rule do not alter the cost-benefit analysis and conclusions contained in the Regulatory Evaluation prepared for the February 2, 2010 final rule.

C. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 ("Federalism"), and the President's memorandum on "Preemption" published in the **Federal Register** on May 22, 2009 (74 FR 24693). This final rule preempts State, local, and Indian tribe requirements, but does not impose any regulation with substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal Hazardous Materials Transportation Law, 49 U.S.C. 5101–5127, contains an express preemption provision (49 U.S.C. 5125(b)) preempting State, local, and Indian tribe requirements on the following subjects:

(1) The designation, description, and classification of hazardous materials;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;

(3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; or

(5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This final rule addresses covered subject items 1, 2, 3, and 5 above. This rule preempts any State, local, or Indian tribe requirements concerning these subjects unless the non-Federal requirements are "substantively the

same" as the Federal requirements. This final rule is necessary to incorporate changes to the final rule in response to one petition for reconsideration and four appeals, and to make corrections to the February 2, 2010 final rule that without this rulemaking will become effective on October 1, 2010.

Federal hazardous materials transportation law provides at § 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. This effective date of preemption is 90 days after the publication of this final rule in the **Federal Register**.

D. Executive Order 13175

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13175 ("Consultation and Coordination with Indian Tribal Governments"). Because this final rule does not have tribal implications and does not impose direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply.

E. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities. An agency must conduct a regulatory flexibility analysis unless it determines and certifies that a rule is not expected to have a significant impact on a substantial number of small entities. The corrections and revisions contained in this final rule are minor and will have little or no effect on the regulated industry. While maintaining safety, it relaxes certain requirements. Many of the amendments in this rulemaking are intended to correct or clarify regulatory requirements specific to the February 2, 2010 final rule concerning the construction and use of non-bulk and bulk packagings and do not impose any additional costs on small entities.

This final rule has been developed in accordance with Executive Order 13272 ("Proper Consideration of Small Entities in Agency Rulemaking") and DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts of draft rules on small entities are properly considered. The changes in this final rule will enhance safety, and I certify that this proposal, if promulgated, would not have a significant economic impact on a substantial number of small entities.

F. Unfunded Mandates Reform Act of 1995

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It will not result in costs of $120.7 million or more, in the aggregate, to any of the following: State, local, or Native American tribal governments, or the private sector.

G. Paperwork Reduction Act

This final rule imposes no new information collection requirements.

H. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document may be used to cross-reference this action with the Unified Agenda.

I. Environmental Assessment

The National Environmental Policy Act (NEPA), §§ 42 U.S.C. 4321–4375, requires federal agencies to analyze regulatory actions to determine whether the action will have a significant impact on the human environment. The Council on Environmental Quality (CEQ) regulations order federal agencies to conduct an environmental review considering (1) the need for the action, (2) alternatives to the action, (3) environmental impacts of the action and alternatives, and (4) the agencies and persons consulted during the consideration process. 40 CFR 1508.9(b). In the February 2, 2010 final rule, we developed an assessment to determine the effects of these revisions on the environment and whether a more comprehensive environmental impact statement may be required. The requirements in this rulemaking will reduce confusion and enhance voluntary compliance, thereby reducing the likelihood of deaths, injuries, property damage, hazardous materials release, and other adverse consequences of incidents involving the transportation of hazardous materials. We have determined there will be no significant environmental impacts associated with this final rule.

J. Privacy Act

Anyone is able to search the electronic form for all comments received into any of our dockets by the name of the individual submitting the comments (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78), or it is available at: *http://www.dot.gov/privacy.html.*

Issued in Washington, DC, on September 22, 2010, under authority delegated in 49 CFR part 1.

Cynthia L. Quarterman,

Administrator.

[FR Doc. 2010–24336 Filed 9–29–10; 8:45 am]

BILLING CODE P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 171, 172, 173, 175, 176, 178, and 180

[Docket Nos. PHMSA–2009–0126 (HM–215K)]

RIN 2137–AE45

Hazardous Materials: Harmonization With the United Nations Recommendations, International Maritime Dangerous Goods Code, and the International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Final rule.

SUMMARY: PHMSA is amending the Hazardous Materials Regulations to maintain alignment with international standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport limited quantities, and vessel stowage requirements. These revisions are necessary to harmonize the Hazardous Materials Regulations with recent changes made to the International Maritime Dangerous Goods Code, the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air, and the United Nations Recommendations on the Transport of Dangerous Goods—Model Regulations.

DATES: *Effective date:* January 19, 2011.

Voluntary compliance date: PHMSA is authorizing voluntary compliance beginning January 1, 2011.

Delayed compliance date: Compliance with the amendments adopted in this final rule is required beginning January 1, 2012.

Incorporation by reference date: The incorporation by reference of certain publications listed in this rule is approved by the Director of the Federal Register as of January 19, 2011.

FOR FURTHER INFORMATION CONTACT: Michael Stevens, telephone (202) 366–8553, or Shane Kelley, telephone (202) 366–0656, Standards and Rulemaking Division, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., 2nd Floor, Washington, DC 20590–0001.

SUPPLEMENTARY INFORMATION:

I. Background

In a final rule published under Docket HM–181 (55 FR 52402, December 21, 1990), the Research and Special Programs Administration (RSPA), the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA), comprehensively revised the Hazardous Materials Regulations (HMR; 49 CFR Parts 171 to 180) to harmonize U.S. hazardous materials transportation requirements with the United Nations Recommendations on the Transport of Dangerous Goods (UN Model Regulations). The UN Model Regulations are not regulations, but rather are recommendations issued by the UN Committee of Experts on the Transport of Dangerous Goods (UNSCOE) and the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). These Model Regulations are amended and updated biennially by the UNSCOE and serve as the basis for national, regional, and international modal regulations, including the International Maritime Organization's International Maritime Dangerous Goods Code (IMDG Code) and International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions).

Since publication of the 1990 rule, we have issued eight additional international harmonization rules (Dockets HM–215A (59 FR 67390, December 29, 1994); HM–215B (62 FR 24690, December 16, 1996); HM–215C (63 FR 57929, October 29, 1998); HM–215D (66 FR 8644, February 1, 2001); HM–215E (68 FR 1013, January 8, 2003); HM–215G (69 FR 76044, December 20, 2004); HM–215I (71 FR 78596, December 29, 2006); and HM–215J (74 FR 2200, January 14, 2009)) based on the corresponding biennial updates of the UN Model Regulations, the IMDG Code, and the ICAO Technical Instructions.

To maintain alignment of the HMR with international requirements, in this final rule, we are incorporating changes based on the sixteenth revised edition of the UN Model Regulations, Amendment 35–10 to the IMDG Code, and the 2011–2012 ICAO TI, which becomes effective January 1, 2011 (the IMDG Code is effective January 1, 2012).

Federal law and policy strongly favor the harmonization of domestic and international standards for hazardous materials transportation. The Federal hazardous materials transportation law (Federal hazmat law; 49 U.S.C. 5101 *et seq.*) permits PHMSA to depart from international standards in order to promote safety or other overriding public interest, but otherwise requires PHMSA to align the HMR with international transport standards and requirements to the extent practicable (*see* 49 U.S.C. 5120). Harmonization enhances international trade by minimizing the costs and other burdens of complying with multiple or inconsistent safety requirements for transportation of hazardous materials to and from the United States. This becomes increasingly important as the volume of international hazardous materials shipments grows. Harmonization also enhances safety for international movements, but only if the international standards themselves provide an appropriate level of safety. PHMSA actively participates in the development of international standards for the transportation of hazardous materials, frequently advocating the adoption in international standards of particular HMR requirements.

When considering the adoption of international standards under the HMR, we review and evaluate each amendment on its own merit, on the basis of its overall impact on transportation safety, and the economic implications associated with its adoption into the HMR. Our goal is to harmonize without diminishing the level of safety currently provided by the HMR and not impose undue burdens on the regulated public.

II. Primary Topics of Concern Discussed in the ANPRM

PHMSA published an advance notice of proposed rulemaking (ANPRM) (74

FR 53982, October 21, 2009) highlighting issues under consideration for harmonization with international standards and requesting comments as to whether the HMR should be amended to incorporate specific international standards and the potential benefits and costs of doing so.

Comments on specific harmonization issues covered in the ANPRM are discussed in brief below. Please review the notice of proposed rulemaking (NPRM) (75 FR 52070, August 24, 2010) for a complete discussion of comments to the ANPRM.

A. Limited Quantities and Consumer Commodities

PHMSA has long recognized the need to authorize limited exceptions for the transportation of classes and quantities of hazardous materials described as limited quantities, or consumer commodities reclassed as ORM–D. Considerable efforts have been made internationally to harmonize multi-modal standards with regard to the transport of limited quantities, including consumer commodities. PHMSA held public meetings on this issue in February 2006 and March 2008 to discuss potential impacts on domestic stakeholders. Additionally, this issue was discussed during the agency's pre-UN public meetings held in 2006 and 2007. There was considerable domestic interest in pursuing further harmonization internationally due to the potential for substantial savings in transportation costs and improved transportation efficiency. In the ANPRM (74 FR 53982, October 21, 2009), PHMSA invited comments on this issue with regard to aligning the HMR with the UN Model Regulations for the domestic and international transport of limited quantities and consumer commodities. Of particular concern was any potential negative impact on domestic transportation through the elimination of the transportation mechanism for limited quantity hazardous materials reclassed as ORM–D. While some changes adopted in the UN Model Regulations are similar to provisions currently in the HMR (*e.g.,* inner packaging limits and authorized use of non-specification outer packagings), some changes are not (*e.g.,* marking and labeling). In the ANPRM, PHMSA suggested that, depending on comments received and our own evaluation, the agency may determine that the significance of any amendments on this issue may warrant a separate rulemaking action.

We received several comments submitted in response to the ANPRM supporting adoption of the UN Model Regulation limited quantity provisions into the HMR. The commenters urged PHMSA to move forward and adopt the limited quantity provisions as prescribed in the sixteenth revised edition of the UN Model Regulations. However, several commenters expressed concern that this should not be done at the expense of the ORM–D provisions currently in the HMR. Some altogether opposed the elimination of the existing provisions for ORM–D materials as part of HM–215K and recommended that any changes to the requirements be made through a separate rulemaking.

In the NPRM (75 FR 52070, August 24, 2010), PHMSA outlined its determination, partially based on our perception of favorable comments received in response to the ANPRM, that aligning the existing limited quantity provisions in the HMR with the international standards and regulations (*i.e.,* UN Model Regulations, IMDG Code and the ICAO TI) would enhance safety by facilitating a single, uniform system of transporting limited quantity materials. We emphasized the proposals did not include the immediate or short-term removal of the existing provisions in the HMR for limited quantities reclassed as ORM–D (including those for consumer commodities, cartridges, small arms and cartridges, power device) and included a delayed compliance period we believed was sufficient in length to allow stakeholders time to comply with the transition to the revised limited quantity requirements and eventual elimination of the ORM–D classification. Because the limited quantity provisions in the UN Model Regulations and the IMDG Code are closely aligned with those already contained in the HMR, we contended that domestic alignment for highway, rail and vessel transportation would result in minimal impact and regulatory burden. And, because of the inherent risk unique to air transportation, we believed full harmonization with the ICAO TI (where appropriate) was necessary with regard to the materials authorized and quantity limits for limited quantities (including consumer commodities) intended for transport by air.

B. Classification of Division 1.4S Explosives

For eight Division 1.4 explosive articles (UN0323, UN0366, UN0441, UN0445, UN0455, UN0456, UN0460, and UN0500), the UN Model Regulations have been amended to require a Type 6(d) test to determine whether such articles may be assigned to Compatibility Group S. Assignment to Compatibility Group S indicates that hazardous effects from accidental functioning are limited to the extent the article or substance does not significantly hinder or prohibit fire fighting or emergency response efforts in the immediate vicinity of a package containing the material. The test is designed to be performed on a single package containing an explosive article or explosive substance to determine if the package is capable of containing any hazardous effects in the event of an accidental functioning of its contents. The amendment is supplemented by revisions to the explosives testing standards in the UN Manual of Tests and Criteria as well as the adoption of a new special provision that would authorize the use of the above mentioned identification numbers only if the results of the Type 6(d) test successfully demonstrate that any hazardous effects are confined within a package. In the ANPRM, we invited commenters to provide data and information concerning the possible safety impacts of the new test provisions and compliance costs that would be incurred if the new test were adopted into the HMR. In addition, we invited commenters to provide suggestions or recommendations concerning whether to apply the test to already-approved explosives.

We received several comments both supporting and opposing adoption of the Type 6(d) test to determine whether a Division 1.4 explosive article may be assigned to Compatibility Group S. All the commenters who addressed this issue indicated that, if adopted, the test must be applied to previously-approved articles in a manner that is reasonable and not overly broad. One suggestion was to allow the classification of previously-approved explosive articles to be based on results of testing of product groups by a PHMSA-approved laboratory or on results of self-testing and video documentation by the manufacturer.

Commenters opposing adoption of the Type 6(d) test suggested that more research on the practical effect of this testing requirement is necessary and that the lack of grandfathering criteria for products already approved as Division 1.4S explosives (*e.g.,* power device cartridges) is impractical, expensive, and impedes commerce. They also indicated concern regarding the cost of articles consumed in testing in addition to the cost of pre-testing or redesign of an article by a manufacturer to ensure passing the Type 6(d) test, but did not quantify these costs.

C. Classification of Sour Crude Oil

Currently, all types of petroleum crude oil are listed as a Class 3 flammable liquid in the § 172.101 Hazardous Materials Table (HMT). PHMSA is aware that transportation of a certain type of crude oil known as "sour" crude oil may pose risks not associated with other types of crude oil due to its inherent potential of evolving hydrogen sulfide, a highly toxic and flammable gas. Sour crude oil, commonly found in North America, contains a high concentration of sulfur. The evolution of hydrogen sulfide vapors from crude oil is dependent on temperature, packaging confinement, transport conditions (*e.g.,* sloshing), bacteria, and sulfur concentration, among many other potential factors. When transported in bulk packagings such as cargo tanks or tank cars, the evolved hydrogen sulfide gas may build up in the vapor space of the packaging, posing a potential risk, particularly during loading and unloading.

Based on the risk of toxic vapors, the UN Model Regulations were amended by assigning a new identification number and shipping description for sour crude oil with a flammable primary hazard and a toxic subsidiary hazard. Additionally, a new special provision was added specifying the assignment of a Packing Group (PG) based on the degree of danger presented by either the flammability or toxicity hazard of the sour crude oil. For example, sour crude oil meeting flammability criteria for Class 3, PG II, and toxicity criteria for Division 6.1, PG I, poisonous-by-inhalation, would be classified as a Class 3, PG I material.

In the ANPRM, PHMSA invited commenters to provide data and information concerning the impact on domestic shippers and carriers if these requirements were adopted in the HMR. The agency also asked for comments addressing which hazard communication methods (*e.g.,* package markings, shipping papers) and/or packaging requirements are most cost-effective for communicating the hazards and reducing the risks of transporting sour crude oil.

We received comments opposing adoption of the UN amendments for the description and classification of sour crude oil into the HMR. The commenters recommended against requiring domestic use of the new proper shipping name for sour crude oil with a Division 6.1 subsidiary risk and recommended that use be limited to international transport. Commenters further recommended that PHMSA should require drivers engaged in the loading and unloading of sour crude oil to wear a hydrogen sulfide monitoring device and have respiratory protection accessible, and require warning signs at the cargo tank manhole and area of operation. Additionally, commenters recognized that hydrogen sulfide gas is a hazard, but suggested that classification of crude oil at the time of shipment may not reflect the toxicity of hydrogen sulfide in the vapor space of a cargo tank or other packaging after the crude oil has been in transportation. They also noted that there are best industry practices already in place that address this issue and that the Occupational Safety and Health Administration (OSHA) has requirements in place to communicate the hazards of hydrogen sulfide in the workplace. They supported other means of hazard communication to ensure that workers are aware of the hazards of hydrogen sulfide such as a marking on a bulk packaging.

D. IBC Rebottling

Under both the UN Model Regulations and the HMR, replacement of the rigid plastic receptacle of a composite IBC is considered a "repair" under certain conditions and, thus not subject to design qualification testing as a new or different design. The UN Model Regulations were amended to specify that a replacement bottle (*i.e.,* rigid plastic receptacle) must be of the original tested design type and limits the replacement to a bottle from the original manufacturer. In the ANPRM, we invited comments on this amendment and how, if adopted into the HMR, it would impact the use of IBCs in domestic or international commerce.

All commenters who addressed this issue supported the adoption of the UN Model Regulations definition of "repair" for IBC rebottling purposes. The comments included a request for an extended compliance date of January 1, 2012 to provide users and manufacturers of composite IBCs adequate time to implement the provision and not place them at an economic disadvantage with international counterparts.

E. Metal Hydride Storage Systems in Conveyances

A metal hydride storage system is a single complete hydrogen storage system that includes a receptacle, metal hydride, a pressure relief device, a shut-off valve, service equipment, and internal components. The HMR currently do not prescribe specific packaging or shipping methods for metal hydride storage systems containing hydrogen. However, PHMSA has issued a number of special permits to allow the use of these systems for transport. The UN Model Regulations, in new Packing Instruction P205, prescribe standards for the construction, qualification, marking and requalification of such systems. In the ANPRM, PHMSA invited comments on whether similar standards should be adopted into the HMR. One commenter supported adoption of the standards for the construction, qualification, marking, and requalification of metal hydride storage systems containing hydrogen.

F. In Vitro Testing for Corrosivity

In 1993, RSPA began recognizing an alternative test method (*i.e., in vitro* testing commercially available as Corrositex®), which is not carried out in live animals, to determine the corrosivity of a hazardous material for transportation purposes under the terms and conditions specified in a special permit (DOT–SP 10904). Similar *in vitro* test methods are prescribed in the following Organization for Economic Cooperation and Development (OECD) Guidelines for the Testing of Chemicals and were adopted in the UN Model Regulations:

- No. 430, "*In Vitro* Skin Corrosion: Transcutaneous Electrical Resistance Test (TER)" (2004);
- No. 431, "*In Vitro* Skin Corrosion: Human Skin Model Test" (2004); and,
- No. 435, "*In Vitro* Membrane Barrier Test Method for Skin Corrosion" (2006).

Because methods 430 and 431 can be used to determine corrosivity for other than transportation purposes, they cannot be used to determine the Packing Group (PG) assignment of a material that tests positive for corrosivity for the purposes of hazardous materials transportation. A negative result for corrosivity under methods 430 and 431 can, however, preclude further testing to determine PG assignment using method 404, the current OECD Guideline involving *in vivo* testing or method 435, the newly adopted OECD Guideline involving *in vitro* testing.

All commenters responding to the ANPRM supported adoption and use of the OECD *in vitro* test methods for determining corrosivity on the basis of reducing the number of tests requiring live animals.

III. Comments Submitted in Response to Noteworthy Harmonization Amendments Proposed in the August 24, 2010 NPRM; the Final Rule

In our latest harmonization effort, we received over 2,200 comments in response to the NPRM (75 FR 52070, August 24, 2010). The majority of the

comments received were from individuals in support of adoption of corrosivity testing methods not based on the results of live animal testing. The following individuals, companies, and organizations submitted comments to the NPRM (in chronological order of submittal). We note, however, that in lieu of listing each individual commenting, we have listed PETA as a proxy for all comments received supporting adoption of corrosivity testing methods alternative to live animal testing:

(1) R.R. Street & Co. (Street);
(2) Infotrac;
(3) Vanguard Logistics Services (VLS);
(4) Zebrowski, Department of Energy (DOE);
(5) 3M;
(6) The Japan Electrical Manufacturer's Association (JEMA);
(7) Andersen Products (Andersen);
(8) FedEx Express (FedEx);
(9) Saft America, Inc. (Saft);
(10) People for the Ethical Treatment of Animals (PETA);
(11) Toshiba America Electronic Components, Inc. (TAEC);
(12) Association of Hazmat Shippers, Inc. (AHS);
(13) National Nuclear Security Administration Service Center, DOE (NNSA);
(14) Sporting Arms and Ammunition Manufacturer's Institute (SAAMI);
(15) Baker Hughes (Baker);
(16) Signa Chemistry, Inc. (Signa);
(17) Institute of Maker's of Explosives (IME);
(18) United Parcel Service (UPS);
(19) Titan Specialties, Ltd. (Titan);
(20) Human Focused Testing;
(21) American Veterinary Medical Association (AVMA);
(22) Valspar;
(23) Utility Solid Waste Activities Group (USWAG);
(24) Trulite, Inc. (Trulite);
(25) The Rechargeable Battery Association (PRBA);
(26) American Petroleum Institute (API);
(27) American Coatings Association, Inc. (ACA);
(28) BIC Corporation (BIC);
(29) American Trucking Associations (ATA);
(30) Council on Safe Transportation of Hazardous Articles, Inc. (COSTHA);
(31) Healthcare Distribution Management Association (HDMA);
(32) Aviation Suppliers Association (ASA);
(33) Modification and Replacement Parts Association (MARPA);
(34) International Vessel Operators Dangerous Goods Association (IVODGA);
(35) TravelScoot, USA (Scoot);
(36) Dangerous Goods Advisory Council (DGAC);
(37) Lilliputian Systems, Inc. (LSI);
(38) Department of Defense Explosives Safety Board (ESB);
(39) Ensign-Bickford Aerospace & Defense (EBAD)
(40) Safety Specialists, Inc. (SSI);
(41) Owen Compliance Services, Inc. (OCS);
(42) Potomac Strategy Associates (PSA);
(43) Arkema, Inc. (Arkema);
(44) Association of American Railroads (AAR);
(45) Air Line Pilots Association (ALPA);
(46) US Fuel Cell Council (USFCC);
(47) International Air Transport Association (IATA);
(48) Alaska Airlines (AA);
(49) PPG Industries, Inc. (PPG); and
(50) Edgcomb Law Group (ELG).

A. Harmonization Amendments Adopted in This Final Rule

In this final rule, PHMSA is adopting the following amendments to harmonize the HMR with the most recent revisions to the UN Model Regulations, ICAO Technical Instructions, and the IMDG Code:

1. Petitions for Rulemaking

We are addressing one petition for rulemaking, P–1550, from PETA requesting that PHMSA incorporate by reference OECD Guidelines 430, 431 and 435 into the HMR that prescribe *in vitro* testing methods for determining corrosivity.

2. Hazardous Materials Table (HMT)

Amendments to the HMT to add, revise, or remove certain proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, bulk packaging requirements, passenger and cargo aircraft maximum quantity limitations, and vessel stowage provisions.

3. Organic Peroxide Tables

Amendments to the Organic Peroxide Tables to add, revise, or remove certain hazardous materials and provisions.

4. Incorporation by Reference

Amendments to incorporate by reference the 2011–2012 ICAO Technical Instructions, Amendment 35–10 to the IMDG Code, sixteenth revised edition of the UN Model Regulations and the fifth revised edition of the UN Manual of Tests and Criteria. Additionally, we are updating our incorporation by reference of the Canadian Transportation of Dangerous Goods Regulations to include Amendment 6 (SOR/2008–34) February 7, 2008 (pertains to miscellaneous amendments); and Amendment 7 (SOR/2007–179) August 22, 2007 (pertains to highway cargo tanks). This incorporation by reference augments the broad reciprocity provided in § 171.12 where the HMR allow the use of the Canadian TDG Regulations under certain conditions when transporting hazardous materials to or from Canada by highway or rail.

5. Limited Quantities

We received a number of comments in response to the limited quantity and ORM–D classification amendments proposed in the August 2010 NPRM. Commenters can basically be categorized into two groups: Those supporting harmonization with the international standards and regulations for limited quantities and those in opposition to the eventual elimination of the ORM–D classification. The remainder of the commenters offered suggestions or revisions to clarify or aid understanding of the proposed amendments.

Those commenters generally supporting harmonization of the limited quantity provisions include:

Alaska Airlines;
American Coatings Association;
American Trucking Associations;
Association of Hazmat Shipper, Inc.;
Council on Safe Transportation of Hazardous Articles, Inc.;
Dangerous Goods Advisory Council;
FedEx Express;
International Vessel Operators Dangerous Goods Association;
PPG Industries, Inc.;
Sporting Arms and Ammunition Manufacturers Institute, Inc.; and
United Parcel Service.

Those commenters opposing the eventual elimination of the ORM–D hazard classification include:

American Coatings Association;
Aviation Suppliers Association;
Healthcare Distribution Management Association;
Modification and Replacement Parts Association;
PPG Industries, Inc.;
Safety Specialists, Inc.;
Utility Solid Waste Activities Group; and
Valspar.

Due to the large number of commenters and the variety of comments provided, we outline pertinent topic areas to better address all the comments. The comments are discussed and addressed as follows:

a. *Air-specific requirements.* In the NPRM, we proposed to revise § 173.27 to add a new table outlining air transport requirements for limited quantity material including package quantity limits consistent with the ICAO Technical Instructions. The proposed quantity limits for air transport differ from the quantity limits for other modes, which was a point of contention for some commenters. Three commenters (ACA, DGAC, SSI) disagreed with the adoption of the proposed package limits in the table and one commenter (COSTHA) expressed concern that the table is too broad. ACA asserted:

Introducing these limits will only frustrate domestic transportation and introduce unnecessary complexity into a fairly simple process. In the coatings industry, air shipments are not the norm and are only used when there is some urgency or the destination is a remote location. Requiring different inner and outer packaging quantity limits for air will eliminate the efficiency of a "one size fits all LQ shipments" process.

SSI added:

Some materials that were ORM–D may not be eligible to be shipped as limited quantity. Most inner packagings have been severely reduced. Isopropanol UN1219 (rubbing alcohol) can be presently shipped in inner containers up to 1 liter. Under the new Table 3 the inner container is reduced to 500 milliliter. This product is normally sold in pints, quarts, and gallons. Quarts would not be eligible for limited quantity air shipments. This will require shippers to ship in UN standard packaging, apply hazard class labels and meet all other requirements for fully regulated shipments.

We understand that more inner packagings may be required of a material authorized to be shipped as a limited quantity by air. SSI used Isopropanol as an example in their comments where the inner packaging quantity limits are reduced from 1 liter to 500 milliliters for a Packing Group II Class 3 (flammable liquid) when the current limits of the HMR are compared with the ICAO Technical Instructions. SSI also stated that the product is sold in pints, quarts and gallons. Currently under the HMR, the gallon is ineligible as a limited quantity. Under the amendment proposed in the NPRM, the gallon and quart would be ineligible for air transport as a limited quantity. However, because the outer packaging quantity limit is 1 liter for a Packing Group II Class 3 (flammable liquid), SSI would just have to substitute 2 one-pint inner packagings for a one-quart container of product in the same package.

DGAC reasoned:

The HMR limited quantity provisions predate ICAO TI limited quantity provisions. When limited quantity provisions were introduced in the ICAO TI * * * on the basis of existing U.S. limited quantity provisions, additional limitations were included * * * RSPA and PHMSA have, up until now, not deemed it necessary to incorporate these limitations in the HMR. The long intervening period between when the limits were first introduced in the ICAO TI and the present suggests that it is unnecessary to adopt these limits for the sake of harmonization. Further, [we are] unaware of any new safety information that would justify introducing these limits at this time.

DGAC further argued:

Introducing these limits will serve to frustrate domestic transportation. A key objective of * * * PHMSA has been to provide multimodal harmonization * * * so that the same package will essentially be suitable by all modes of transportation. This is currently true for limited quantity packages * * * By introducing new limits, as shown in the table referenced by proposed § 173.27(f), limited quantity packages prepared for ground or sea transport may not necessarily be suitable for air transport. Most shippers commonly transport * * * limited quantity packages by modes other than air. Currently, with limited quantity package requirements for all modes closely aligned, transporting a limited quantity package is relatively straightforward. If the limitations on inner and outer package quantity limits and new performance requirements are introduced * * * it may be necessary to repackage ground/sea limited quantity packages for purposes of air transport. [We] are unaware of any safety concerns that would justify the imposition of these new limitations.

Major differences already exist under the HMR for the air transport of limited quantities as compared to other modes. For example, limited quantity and consumer commodity inner packagings containing liquids are subject to the pressure differential capability requirements in § 173.27(c).

COSTHA explained further confusion:

It is important for shippers to use the § 172.101 Table to determine eligibility for a limited quantity * * * However, if one uses only Table 3, the shipper may inappropriately determine that a material is eligible for shipment as a limited quantity. For example, [c]hlorosilanes are not permitted to be packaged in accordance with limited quantity provisions * * * however, [certain classes of PG II materials] (many chlorosilanes fall into these classes) are identified as having acceptable limits * * * according to the § 173.27 Table 3. Given that limited quantities is a source of confusion for many shippers and carriers, this table does less to clarify a point and more to confuse the reader.

Section 173.27(f) clearly states that, for transportation by aircraft, materials packaged as limited quantities must be eligible for transportation aboard a passenger-carrying aircraft. In this final rule, we are adding additional clarification in § 173.27(f) to emphasize this critical step in determining limited quantity eligibility by also referring the reader to Column (9A) of the HMT. As stated in the NPRM, PHMSA is studying the feasibility of revising the HMT to further assist in determining limited quantity eligibility by air or possibly by all modes of transportation.

Two commenters (ASA, MARPA) were critical of the nature of proposed regulatory changes without an apparent safety need, specifically with regard to the limited quantity marking for air transport consistent with the ICAO Technical Instructions. The commenters argued that the constant changes make compliance with the regulations difficult. ASA and MARPA stated:

The 2009–2010 [ICAO TI] authorized * * * the UN identification number in a diamond shape [as] the mandatory way to mark limited quantity packages starting in 2011 * * * Beginning in 2011, ICAO has abandoned the marking protocols announced in 2009, and established a new, different identification protocol for identifying limited quantities * * * Instead of placing the UN identification number in the diamond shape, shippers will be required to place a "Y" in the diamond shape * * * There appears to be no reason other than mere harmonization for the sake of harmonization for adopting the ICAO limited quantity marking. [The] marking provides no additional value * * * because many people in the United States system will have no idea what the "Y" marking means * * * Although "Y" is the letter that precedes limited quantity packing instructions in the ICAO system, the letter "Y" has no special meaning in the existing United States Regulations.

b. *Dual marking system.* Support for harmonization efforts including the adoption of the square-on-point limited quantity marking (*i.e.,* the square-on-point with top and bottom portions black and the center white) generally coincided with support for the eventual elimination of the ORM–D classification along with the ORM–D marking. The basis for support was that this would eliminate a dual system of marking packages for domestic and international transportation. With regard to elimination of a dual marking system, some commenters (AA, FedEx, IVOGDA) indicated that a dual system of marking creates confusion and requires carriers and shippers to adjust their training programs to account for this dual system. They therefore recommend PHMSA consider an earlier implementation date than the proposed January 1, 2013 date. AA added:

We encounter almost every day reused boxes in the U.S. mail, passenger baggage, or cargo shipments that have old ORM–D marks. This takes considerable time to inspect and causes frustration to the public when non-hazardous shipments are denied transportation because of a marking they do not understand as an indication of hazardous materials.

PHMSA notes that adoption of a new limited quantity marking(s) may not necessarily alleviate or eliminate use of packaging premarked with the limited quantity square-on-point for non-hazardous materials.

Notwithstanding the general comments regarding dual marking, several commenters offered suggestions or revisions to improve or clarify the proposed requirements. As part of the NPRM, we authorized voluntary use of

the limited quantity marking. UPS urged PHMSA to delay voluntary use to allow carriers time to develop appropriate training in response to a final rule, stating that:

> In [our] experience, this kind of authorization * * * can lead to practical difficulties which in turn could have compliance and safety implications * * * Training in UPS will be needed to educate U.S. package handlers of the meaning of the limited quantity marking.

Additionally, on the basis of their opposition to adoption of the air transport requirements for limited quantities consistent with the ICAO TI, DGAC recommended that:

> The "Y" package mark [proposed] in § 172.315 not be required * * * [and] recommend that [PHMSA] allow permissive use of the "Y" mark for all modes of transport when the package meets the relevant requirements of the ICAO TI.

We agree with the DGAC recommendation that a "Y" marked package in full conformance with the air transport requirements for a limited quantity package should be authorized transportation by all modes and are revising § 171.22 accordingly. However, we do not agree with their suggestion that the limited quantity "Y" mark be voluntary. There are currently two different ways to mark a package of limited quantities in the HMR and a third (four if counting packaged ORM–D–AIR materials) would be very disruptive. Therefore, in this final rule, PHMSA is adopting the "Y" mark as proposed and providing a transition period to allow for the continued use of existing markings until January 1, 2012.

c. *Elimination of the ORM–D class.* Most commenters opposing the elimination of the ORM–D classification recommend using a separate rulemaking to implement this proposal. Some question whether the costs of eliminating this classification have been fully considered; others question whether there is sufficient safety justification to warrant replacing the current domestic ORM–D provisions with internationally harmonized provisions. A sampling of comments received follows. ACA argued:

> Although [we] supported harmonization of the limited quantities exceptions at the UN discussions, [there was an] understanding that the consumer commodity exception was a separate issue * * * In the coatings and adhesives industry, we are unaware of any major incidents with consumer commodity shipments. While PHMSA indicates that "aligning the existing limited quantity provisions in the HMR with the international standards will substantially enhance safety," we question how this applies to the proposal to eliminate ORM–D consumer commodities.

Valspar asserted:

> We believe PHMSA has overreached the HM–215 harmonization process by proposing * * * to eliminate the well-defined ORM–D (Consumer Commodity) hazard class. We believe any proposal * * * should not be linked to the international harmonization program. In several industry/regulatory conferences it has been proposed that Limited Quantity and Consumer Commodity are synonymous. We do not agree with this premise and strive to ensure that our "Consumer Commodities" meet the spirit and HMR definition of "* * * intended or suitable for sale through retail sales agencies or instrumentalities for consumption by individuals for purposes of personal care or household use." [We ship] many items under Limited Quantity provisions that we do not believe meet the "suitability" test and assert there is an important distinction between the two. We applaud PHMSA for clearly defining the pathway to ORM–D through Limited Quantity and Special Provision options and can only imagine whether this can be misused through other less clear regulation * * * We challenge PHMSA to revisit the assertion to Executive Order 12866 cited in the HM–215K NPRM that only considers the listed harmonization to be beneficial, with no acknowledgement of the financial cost to ORM–D shippers.

DGAC expressed concern that:

> Eliminating the ORM–D classification and package marking [will make it] that such packages will no longer be excepted from the § 175.75 requirements for air transport. No similar requirement applies under the ICAO TI so * * * this change cannot be justified on the basis of harmonization * * * [We believe] PHMSA considers limited quantity packages and currently classified ORM–D packages as posing comparable hazard[s]. Consistent with that approach, we recommend that PHMSA similarly except all limited quantity packages from the § 175.75 requirements.

We agree with DGAC regarding § 175.75 quantity limits for limited quantity packages and are revising the section accordingly. Limited quantity shipments will enjoy the same exception from the § 175.75 quantity limits as ORM–D–AIR materials currently receive.

USWAG stated:

> We believe elimination of the ORM–D standards for transportation * * * will disrupt longstanding shipping practices while failing to provide commensurate safety benefits.

The commenter also expressed concern for downstream shippers who have received ORM–D packages but can no longer transport this package beginning on the January 1, 2014 proposed compliance date. USWAG encouraged PHMSA to implement a phased-in approach that would authorize downstream shippers (that do not repackage these materials) to use ORM–D provisions for an additional period of time.

One commenter (HDMA) provided information that the proposal as written would impose significant cost on the domestic transport of medicines and other healthcare or consumer products. HDMA members concluded that compliance with the regulations would require replacement of more than 10 million plastic totes embossed with the ORM–D marking, costing members an estimated $70 million to purchase new totes with the new limited quantity marking. HDMA is prepared to phase out the use of totes with the ORM–D marking but believes this should be done over an extended period of time to enable existing totes embossed with the marking to be used over their lifetime. HDMA stated:

> PHMSA may not have recognized that some industries rely on containers that are embossed with the transport mark and hence conversion to a new mark is considerably more complicated than simply changing a label.

Just as PHMSA has done in the past, if there is merit to a particular segment of the regulated community requiring a longer transition period to be considered, it shall be observed on a case-by-case basis. In their comments, HDMA did not indicate what a "normal" lifetime would be. In their defense, however, they provided comments that were quantified and directly related to their concerns about the regulatory and economic burden placed upon their particular industry.

Finally, several commenters (*e.g.,* COSTHA, FedEx) noted concern over use of the ORM–D mark after the transition period ends (*i.e.,* beginning January 1, 2014). The commenters recommend that PHMSA clarify that at the end of the transition period, a package marked with the ORM–D mark will no longer indicate that a packaging contains a hazardous material (*i.e.,* a consumer commodity).

d. *Conclusion.* In the August 2010 NPRM, PHMSA outlined our determination, partially based on our perception of favorable comments received in response to the ANPRM, that aligning the existing limited quantity provisions in the HMR with the international standards and regulations (*i.e.,* UN Model Regulations, IMDG Code and the ICAO TI) would enhance safety by facilitating a single, uniform system of transporting limited quantity materials. We emphasized the proposals did not include the immediate or short-term removal of the existing provisions in the HMR for limited quantities reclassed as ORM–D (including those

for consumer commodities, cartridges, small arms and cartridges, power device) and included a delayed compliance period we believed was sufficient in length to allow stakeholders time to comply with the transition to the revised limited quantity requirements and eventual elimination of the ORM–D classification.

Based on careful consideration of the comments received in response to the proposals made in the NPRM, PHMSA is moving forward with a substantially revised final rule that adopts the new limited quantity provisions and the eventual phase-out of the ORM–D hazard class. This will implement a standardized system for national and international multimodal transportation. The approach of deminimis quantities, excepted quantities, limited quantities and consumer commodities will all have the same provisions and requirements for international and national transportation in a system that will promote compliance, efficiency and consistent training and lower costs after implementation.

6. Classification of Certain Division 1.4S Explosives

In the August 24, 2010 NPRM, PHMSA stated it understood commenter concerns that prescribing additional tests usually results in increased research and development costs. PHMSA also acknowledged that it believed there was merit to additional prescribed tests when they result in a credible and measureable increase in safety. Consequently, in the NPRM we proposed to require the phased-in testing of all new and previously approved Division 1.4S explosives articles and substances, depending on the intended mode of transport. For newly produced explosive articles, a person who successfully performs the Type 6(d) test would not be required to also perform the Type 6(a) test. PHMSA believes such initiatives will greatly reduce research and development costs without compromising safety.

In the NPRM, PHMSA proposed to adopt the requirement for the Type 6(d) test as prescribed in Section 16.7 of the fifth revised edition of the UN Manual of Tests and Criteria in the new § 172.102(c)(1), special provision 347. For affected articles (or substances) intended for transportation by aircraft, the proposed compliance date of this new requirement was April 1, 2011. If a manufacturer or approval holder of affected articles that previously classed and approved an article as Division 1.4S chooses to continue offering such shipments by aircraft, we proposed the articles must be successfully tested under Test Series 6(d) and a new approval be obtained from PHMSA. Additionally, we proposed that a previously classed and approved Division 1.4S article that is not successfully tested under Test Series 6(d) must be assigned to a compatibility group other than "S" (*e.g.,* B, C, or D) prior to the April 1, 2011 compliance date if intended for transportation by aircraft on or after that date. PHMSA also proposed that the effective date of testing to maintain Division 1.4S classification or reassignment to a higher compatibility group other than "S" be no later than January 1, 2014 for Division 1.4S articles approved prior to January 1, 2012 and are intended for domestic highway or rail transportation. For previously-approved affected articles transported by highway, rail and vessel, reassignment to a compatibility group other than "S" may be accomplished by using existing data and, when recommended by an authorized examination and testing agency, approved by PHMSA. For international highway, rail and vessel transportation, the effective date of Type 6(d) testing requirements or reassignment for new and previously produced affected articles would be January 1, 2012 (*i.e.,* the compliance date of a final rule under this docket, if adopted as proposed).

A number of commenters (Baker, EBAD, ESD, IME, Infotrac, NNSA, OCS, SAAMI, and Titan) addressed our proposal to adopt the Type 6(d) test and associated requirements. Several commenters expressed support for comments submitted by IME and requested that PHMSA give consideration to their comments. Thus, our response to comments will primarily be structured based on the comments IME submitted.

a. Compliance *dates* (i) *Air transport.* IME expressed concern that the proposed compliance date for Type 6(d) testing to determine Division 1.4S classification for materials to be transported by air precedes the compliance date for the rulemaking in general. IME stated:

> The "compliance date of a final rule under this docket" will be January 1, 2012. Simultaneously, however, the proposal establishes a compliance date for transportation by aircraft of April 1, 2011. Accordingly, the compliance date for an individual mode regulated under the rule would precede the compliance date for the rule itself, rendering the April 1, 2011 compliance date both unreasonable and unenforceable.

We disagree. As general policy, PHMSA implements a one-year transition period for international harmonization rulemakings. Thus, we typically publish a rulemaking under the HM–215 docket to be effective January 1 of a given year (to coincide with international effective dates) and require compliance one year later to afford stakeholders the opportunity to prepare for compliance. PHMSA is not bound to the one year transition period and has discretion to institute an earlier compliance date when circumstances warrant. The implementation of this requirement was viewed to be significant by the ICAO Dangerous Goods Panel and an emergency addendum was requested from the Air Navigation Commission. Preventing the transportation of an explosive article with the ability to exit its packaging that could result in collateral damage on a passenger aircraft was determined to be an immediate safety concern and was implemented on very short notice for international air transportation. Therefore, because of concern for the safety in transport of these articles by air and to affect a transition for international air transport with minimal disharmony in compliance dates (the Type 6(d) test is required under ICAO Technical Instructions as of January 1, 2011), we proposed to implement the April 1, 2011, compliance date for Type 6(d) testing for transport by aircraft.

IME also expressed concern that the proposed compliance date of April 1, 2011 for air transport is unattainable. IME stated further:

> [T]hat PHMSA's internal policy establishes a 120-day review period for processing approvals * * *. [W]e have determined that in order to meet the April 1, 2011 compliance deadline for air transportation, approval applicants planning to continue shipping by air would have to ensure that all required testing is completed and the results submitted to PHMSA by December 2, 2010. The required testing must be performed or witnessed by "an authorized examination and testing agency approved by PHMSA." On average, the lead time required to schedule testing with a PHMSA-approved laboratory is six weeks. An additional two weeks would then be required for testing the laboratory to perform the required tests and generate a report * * *. Accordingly, applicants intending to meet the April 1, 2011 deadline would have [had to] finalize arrangements with the testing laboratories by October 4, 2010—twenty-one days prior to the close of the public comment period * * *. Given the impossibility of timely compliance, the proposed April 1, 2011 date will function not as a compliance deadline, but as an automatic prohibition on [of] air transport of the affected 1.4S articles.

PHMSA acknowledges the strict compliance timeline proposed for the air transport of affected articles and substances. We note, however, that the PHMSA imposed 120-day period for

processing of approvals is not a minimum time period but general guidance for estimating the time period to review and process an approval application dependent on multiple factors such as the complexity of an application or errors in its submittal. The approval process may take less than 120 days and routinely does. Additionally, PHMSA's Approvals and Permits Division recently streamlined the explosive approval process to accommodate an influx of approval requests based on adoption of Type 6(d) test prescribed in this rulemaking. Finally, shippers are not constrained to the use of domestic laboratories approved by PHMSA but may utilize the resources of laboratories under the umbrella of other competent authorities (*e.g.,* Transport Canada). However, given the strict timeline proposed in the August 2010 NPRM, the significant number of approval applications we expect to receive, and the potential for delays at authorized testing laboratories attempting to accommodate the volume of testing or reclassification requests, we are extending the compliance date for air transport to July 1, 2011.

(ii) *Vessel transport.* IME noted our failure to indicate a compliance date for domestic vessel transportation. We agree. Our intent was to implement a compliance date that coincides with the effective date of the IMDG Code requirement for the Type 6(d) test (January 1, 2012). Therefore in this final rule, we will require the Type 6(d) test for Division 1.4S classification beginning January 1, 2012 for both domestic and international vessel transportation.

(iii) *Modal variability.* IME expressed concern that the varying compliance dates for air transport (proposed April 1, 2011), international highway, rail, and vessel (domestic and international) (proposed January 1, 2012), and domestic highway and rail (proposed January 1, 2014) will result in confusion and unintentional noncompliance with specific regard to downstream customers. IME reasoned:

> The customer has no way of knowing that the manufacturer ships only domestically [by highway] and has not, therefore, reclassified the product to meet the earlier compliance date for international transport. This leads to unintentional noncompliance by the downstream customer * * *. We recommend that PHMSA promulgate a single compliance date for all modes and for domestic and international transportation.

We disagree. Unawareness of a requirement cannot be used as a defense for non-compliance. Downstream customers or shippers may utilize a number of resources to determine whether an explosive article or substance subject to the Type 6(d) test has been successfully tested. For example, they can obtain a copy of the approval issued by PHMSA. Additionally, it is the shipper's responsibility to properly class and describe a material (*see* § 173.22) and to be trained on any applicable requirements (*see* § 172.704) of the HMR. That said, the Approvals and Permits Division will issue guidance to all current approval holders for affected Division 1.4S articles and materials to provide detailed instruction on the new requirement for Type 6(d) testing. This will include issuing new or amended approvals indicating whether a Type 6(d) test has been successfully conducted which can then be used by downstream customers and shippers to aid in transport decision-making.

b. *Testing requirements.* (i) *Self-testing.* In response to the ANPRM, IME recommended allowing self-testing and video documentation for articles previously approved as Division 1.4S. IME continued to assert that testing requirements for previously approved articles not be overly broad and questioned why this recommendation was not addressed even though PHMSA specifically acknowledged IME's comments in the NPRM. IME reiterated:

> Providing manufacturers with the option to self-test is an effective means of ensuring reasonable application of the new test. Additionally, allowing self-testing of already approved explosives articles will assist industry in minimizing the financial impact of implementation of a new test on already approved, safely transported, explosives.

We disagree. PHMSA believes a uniform process for testing using the Type 6(d) test to determine Division 1.4S classification is the best approach and we do not believe incorporating variability into the process by allowing self-testing and video-documentation for already approved articles complements this approach. PHMSA understands the need to facilitate any possible cost reduction regarding the application of this new testing requirement. We also maintain, however, that in the interest of uniform safety standards under the HMR, requiring that testing be observed or conducted by a PHMSA-approved laboratory is the best approach. This approach will not be codified in the HMR but rather will be incorporated into the explosives approval process as specified in § 173.56 of the HMR.

(ii) *Clarification of NPRM preamble.* Certain phrases and terms were used in the August 2010, NPRM which have caused confusion. We would like to clarify. Regarding the phrase "incremental testing," use of the phrase refers to the staggered compliance dates depending on the mode of transport or domestic/international transport and does not indicate differences in reclassification testing. We are removing any reference to this phrase in the preamble to this final rule to avoid further confusion. Regarding the term "design," as in "previously approved designs," the term was meant to signify individual explosives articles or substances. We are also deleting any use of this term in the preamble to this final rule to avoid any ambiguity in the use of the term.

(iii) *Modal difference.* In response to our proposed implementation of the new testing requirement for Division 1.4S classification, IME objected to any varying testing criteria tied to the intended mode of transport, stating:

> Such action is not consistent with the UN classification system; additionally, an explosive's reaction to stimuli is not affected by the mode of transport. PHMSA offers no rationale for excluding the use of existing test data for the reclassification of articles intended for air transport, and the distinction would inevitably result in confusion and unintended noncompliance in the regulated community.

We agree that there should be uniform testing criteria across all modes. We apologize for the lack of clarity in implementation of this new testing requirement and will clarify further in the following section (c) discussion of our implementation of the Type 6(d) test.

(iv) *Laboratory recommendation.* For previously approved articles, we proposed to allow reassignment to a compatibility group other than "S" using existing data and when recommended by a PHMSA-approved laboratory. IME did not support the proposal to require a recommendation from a PHMSA-approved laboratory where a previously approved article is being reassigned. IME argued:

> Inability to successfully pass the new Type 6(d) test does not invalidate the original laboratory tests and recommendation[s] that were previously sufficient to attain 1.4S classification. Accordingly, there is no rational basis for requiring a laboratory recommendation to support a downgrade in classification. A laboratory recommendation should only be required where the original classification is not supported by laboratory testing and a corresponding recommendation * * * [W]e are also concerned that if the proposal is promulgated as drafted, some testing laboratories may be reticent to issue the required recommendation solely on the basis of existing test data, and may require new testing.

We appreciate the concerns presented by IME. Again, we apologize for any lack of clarity in implementing this new

provision. As indicated previously, our Approvals and Permits Division will be issuing guidance and instruction on testing or reclassification of previously approved Division 1.4S articles or substances. As part of that instruction and in order to alleviate any potential problems from laboratories being reticent to provide a recommendation based on existing data, the Approvals and Permits Division will be providing guidelines to laboratories for which types or batches of already approved articles and substances should be reclassed into which type of downgraded compatibility group.

c. *Implementation of the Type 6(d) test in the explosives approval process.* As IME accurately summarized in its comments, there are three categories of explosive articles or substances affected by the test requirement: (1) Previously approved Division 1.4S articles that will pass the Type 6(d) test; (2) previously approved Division 1.4S articles that will not pass the Type 6(d) test and therefore need to be reassigned to a more conservative compatibility group other than "S"; and (3) new explosive articles for which Division 1.4S classification must be determined through successful Type 6(d) testing. All explosive articles affected by the Type 6(d) test requirement fit into these three categories regardless of the mode of transport. The compliance date for affected articles is dependent upon the intended mode of transport and whether they are to be transported domestically or internationally. Beginning January 1, 2012, any new explosive articles must be successfully subjected to the Type 6(d) test to determine whether Division 1.4S classification is appropriate. However, for a new explosive material intended for transport by aircraft, the compliance date for successful Type 6(d) testing is no later than July 1, 2011. For existing approved Division 1.4S articles intended for transport by air, successful Type 6(d) testing is also required no later than July 1, 2011; otherwise, the articles must be reassigned to another compatibility group and a new approval issued by PHMSA prior to being offered for transportation or transported by aircraft. Beginning January 1, 2012, existing approved Division 1.4S articles intended for international transport by highway, rail, or vessel and for domestic transport by vessel, successful Type 6(d) testing is required; otherwise, the articles must be reassigned to another compatibility group and a new approval issued by PHMSA prior to being offered for transportation. Finally, for existing approved Division 1.4S articles intended for domestic transportation by highway or rail, successful testing or compatibility group reassignment is required beginning January 1, 2014.

We realize the intended mode of transport may change as markets change and evolve but staggered compliance dates we believe are necessary in order to provide sufficient time to manufacturers, shippers, PHMSA-approved laboratories, and our Approvals and Permits Division to accommodate the number of approved Division 1.4S articles that will need testing or reclassification as well as attempting to allay some of the costs to manufacturers who only transport by domestic highway or rail.

d. *Federal considerations.* Two commenters (ESB, NNSA) within the Department of Defense and Department of Energy, respectively, objected to the Type 6(d) test requirement for previously approved Division 1.4S explosive material based on cost and logistical concerns. NNSA noted:

> [M]ore significant than the added costs, are the limited testing assets available necessary to complete testing by the prescribed deadline in the NPRM. [We do not] recognize the need to conduct UN Test Series 6(d) testing on all future permanent hazard classification requests as specified in the NPRM.

ESB added:

> [We object to] with applying the test Type 6(d) for articles previously classified. DOD has been assigning classifications using a methodology that includes assessing projections, fireballs, and jets of flame from unconfined initiation testing. DOD would consider this methodology as equivalent testing and criteria for the assignments of the eight Divisions 1.4 explosive [a]rticles. The DOD [has] not noted any transportation issues with the 378 articles assigned these UN numbers * * * Conducting test Type 6(d) for the 378 articles would take a considerable amount of time without any credible or measurable increase in safety * * * Reclassifying * * * by reassigning CGs other than S is also not a viable option due to the complexity of DOD logistics. Consolidating, and remarking each shipping container located at strategic positions around the world for [defense purposes] would be costly, time consuming and potentially have little safety improvements.

ESB recommended adding a grandfathered exception or issuing a special permit for previously approved DOD Division 1.4S material. We acknowledge concerns by Federal agencies regarding costs and time constraints in the interest of national security. We are currently working directly with potentially affected government stakeholders to remedy concerns regarding implementation of the new requirement for the Type 6(d) test on such entities.

7. Classification of Sour Crude Oil

PHMSA agreed with comments submitted in response to the October 2009 ANPRM that a new proper shipping name is not necessary and that there are more appropriate ways to communicate the potential inhalation hazard risk to transport workers. Therefore, in the August 2010 NPRM, PHMSA proposed to adopt the new proper shipping name found in the UN Model Regulations—"Petroleum sour crude oil, flammable, toxic"—with the letter "I" in Column (1) of the HMT indicating that this description is appropriate for use during international transportation. However, PHMSA did not propose to require use of the new proper shipping name for domestic transportation. PHMSA did propose that a new marking be applied to bulk packagings containing sour crude oil to communicate the potential inhalation risk in transportation.

Three commenters (API, ATA, DGAC) opposed our proposed requirements as ill-conceived and impractical and had concerns with the new marking. They believe the new marking is not necessary based on industry best practices already in place. One commenter (AAR) sought clarification of rail carrier requirements in relation to the proposed marking requirement. Although the commenters opposed our proposed requirements, they strongly support hazard communication processes and procedures to protect employees, the public and the environment from any unreasonable risk of danger from hydrogen sulfide gas. API noted:

> Cargo specific testing of individual packages upon loading, followed by the required identification, classification, packaging selection, marks, labels, placards, and documentation process is impractical. The physical and chemical criteria of the DG/HazMat define the basic shipping information * * * The preparation of shipping information and selection of packagings is typically done well in advance of loading on the basis of known, reliably measured, physical and chemical criteria of the materials being transported. When a wide range of the test results is possible, the DG/HazMat classifiers generally utilize the most conservative data to develop the basic shipping information * * * It is impossible to predict the concentration of H2S in the head space vapors evolving from liquid petroleum crude oils. There is not [a] standardized test, statistical correlation, or known methodology to do this * * * Without a reliable, proven methodology, any attempt to develop a classification process regarding potential, future H2S vapor space concentrations is unrealistic * * * API could

support the use of a differentiated graphic, unique in communicating the potential H2S vapor [but any] such mark should be considered voluntary and not mandated * * *. Companies should be allowed the flexibility in choosing an option that works best for their operations.

DGAC added:

[W]e are concerned that providing a warning for select crude oils may result in decreased vigilance when other substances also posing a potential hydrogen sulfide risk are handled * * *. If * * * PHMSA maintains that a mark is still necessary, we recommend that the applicability of any marking be limited to cargo tank truck operations * * * PHMSA should allow the warning to appear in the vicinity of the loading/unloading operation or on the vehicle at the loading location. This would avoid the need to add and remove the mark from the cargo tank truck * * * We consider the proposed GHS poison mark to be inappropriate * * * Applying the PHMSA proposed mark on crude oil tanks that do not meet the inhalation toxicity criteria results in a hazard communication conflict which should and can be avoided * * *. Should PHMSA maintain a warning is needed, we recommend a warning sign in English that conveys the message that there is a potential hydrogen sulfide hazard. An example could be * * * "Danger, Possible Hydrogen Sulfide Inhalation Hazard," * * * [to be possibly] supplemented by pictograms.

ATA expressed concerns that:

Not every load of sour crude will form hydrogen sulfide during transportation, which will require carriers to repeatedly affix and remove markings * * * If carriers are required to repeatedly alter marking requirements, issues of employee safety from climbing on top of tank trucks as well as economic issues * * * must be better understood. [We] recommend that the warning be located at the loading or unloading facility rather than on the tank truck or other bulk container.

We agree in part with the comments. We continue to maintain that there is a safety risk to hazmat employees that may become exposed to hydrogen sulfide vapor in proximity to openings on packagings during a loading or unloading operation due to elevated concentrations of hydrogen sulfide vapors. We do not believe this risk is limited to cargo tank motor vehicles. It may be that the primary mode of transportation for petroleum crude oil is by cargo tank motor vehicle, but we also continue to maintain that any proposed requirement should apply to all bulk packagings as we believe this risk may be present in any packaging with a bulk quantity of petroleum crude oil.

PHMSA agrees with commenters who have stated that a hazard warning statement specific to hydrogen sulfide gas on bulk packagings would provide for appropriate communication of the risk of potential exposure to such gas. PHMSA notes that such a marking is both specific to the gas and aligns with corresponding warnings currently employed in practice on the shipping documentation. Therefore, in this final rule, PHMSA is amending the marking requirement originally proposed to provide more flexibility to shippers and carriers by allowing a text warning such as "Danger, Possible Hydrogen Sulfide Inhalation Hazard" on bulk packagings containing sour crude to communicate the potential inhalation risk in transportation. *See* Section 172.327 for a discussion of the new marking requirements.

8. IBC Rebottling

In the NPRM, PHMSA proposed to adopt the revised definition of "repair" for composite IBCs consistent with international standards. To specifically address commenters' concerns, PHMSA noted that any proposed compliance date would be no earlier than January 1, 2012, thus providing ample time to comply with the new IBC requirement. We did not receive any additional comments in response to the NPRM. Therefore, in this final rule we are adopting the revised definition of "repair" of an IBC as proposed. *See* Section 180.350 for a discussion of the revised requirement.

9. Metal Hydride Storage Systems in Conveyances

In the August 2010 NPRM, PHMSA proposed to adopt the standards for the construction, qualification, marking and requalification of hydrogen in metal hydride storage systems adopted in the UN Model Regulations. We did not receive any additional comments in response to the NPRM. Therefore, in this final rule we are adopting the requirements as proposed. *See* Section 173.311 for a discussion of requirements for hydrogen in a metal hydride storage system.

10. In Vitro Testing for Corrosivity

Based on the overwhelming support for adoption into the HMR, in the NPRM PHMSA proposed to adopt and authorize the use of the OECD *in vitro* methods. We received over 2,200 comments additional to that received from PETA, in response to the NPRM supporting the adoption of *in vitro* testing methods to determine corrosivity and urging PHMSA to stop the requirement for use of methods based on live animal testing. Therefore, in this final rule we are adopting the OECD *in vitro* testing methods as proposed. *See* Section 173.137 for further discussion of such methods.

B. Harmonization Amendments Not Considered for Adoption in This Final Rule

This final rule makes changes to the HMR based on amendments made in the UN Model Regulations (sixteenth revised edition), IMDG Code (Amendment 35–10) and the ICAO Technical Instructions (2011–2012), which becomes effective January 1, 2011 (the IMDG Code is effective January 1, 2012). We are not, however, adopting all the amendments made to the various international standards into the HMR. In many cases, we have not adopted amendments to the international recommendations and regulations because the framework or structure of the HMR makes adoption unnecessary. In other cases, we have handled, or will be handling, the amendments in separate rulemaking proceedings.

One of the goals of this rulemaking is to continue to maintain consistency between the HMR and the international requirements. We are not striving to make the HMR identical to the international regulations, but rather to remove or avoid potential barriers to international transportation.

Below is a listing of those significant amendments to the international regulations that we are not adopting in this final rule, with a brief explanation of why the amendment was not included:

1. Requirements for Radioactive Materials

In the NPRM, we did not propose to adopt provisions pertaining to the transportation of Class 7 (radioactive) materials into the HMR. Amendments to requirements pertaining to the transportation of Class 7 (radioactive) materials are based on changes contained in the International Atomic Energy Agency (IAEA) publication, "IAEA Safety Standards: Regulations for the Safe Transport of Radioactive Materials." Due to their complexity, these changes are being addressed in a separate rulemaking.

2. Requirements for Lithium Batteries

PHMSA published an NPRM under Docket HM–224F (75 FR 1302, January 11, 2010) that proposed to adopt provisions to ensure all lithium batteries are packaged properly to reduce the possibility of damage to lithium batteries that could lead to a catastrophic incident, and to minimize the consequences of an incident should one occur. In addition, PHMSA proposed to require lithium battery shipments to be accompanied by hazard communication that ensures appropriate

and careful handling by air carrier personnel, including the flight crew, and informs both transport workers and emergency response personnel of actions to be taken in an emergency. The NPRM, which PHMSA developed in close coordination with our colleagues in the Federal Aviation Administration, is the latest in a series of actions PHMSA has taken to address the very serious risks posed by lithium batteries in transportation. The NPRM included proposed revisions to the HMR that were based on lithium battery provisions in the sixteenth revised edition of the UN Model Regulations. Therefore, except for wheelchairs powered by lithium ion batteries, we are not adopting new provisions pertaining to the transportation of lithium cells and batteries in this rulemaking. The docket for the lithium battery rulemaking can be found elsewhere at *http://www.regulations.gov* under PHMSA–2009–0095.

We note that a number of commenters objected to our inclusion of limitations on the stowage of lithium batteries in § 175.75 of the HMR and strongly urged that the limitations be removed from this rulemaking and addressed in a separate lithium battery rulemaking such as HM–224F. We agree. All reference to lithium batteries in our revisions to § 175.75 are removed from this rulemaking.

3. Requirements for Air Packaging

We are not adopting provisions pertaining to certain packagings offered for transportation by aircraft under this rulemaking. PHMSA is considering certain amendments to the HMR related to requirements for the packaging of hazardous materials intended for transportation by aircraft under a separate docket (HM–231A). These would include amendments based on the reformatted packing instructions in the 2011–2012 ICAO Technical Instructions. PHMSA published an ANPRM (73 FR 38361, July 7, 2008) and an NPRM (75 FR 27273, May 14, 2010) related to combination packaging standards offered in air transportation. *See http://www.regulations.gov* under PHMSA–2007–29364 for more information.

IV. Section-by-Section Review

Following is a section-by-section review of the amendments in this final rule:

Part 171

Section 171.7

The "National Technology Transfer and Advancement Act of 1996" directs agencies to use voluntary consensus standards. According to the Office of Management and Budget (OMB) Circular A–119, "Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities," government agencies must use voluntary consensus standards wherever practical in the development of regulations. Agency adoption of industry standards promotes productivity and efficiency in government and industry, expands opportunities for international trade, conserves resources, improves health and safety, and protects the environment.

To these ends, PHMSA actively participates in the development and updating of consensus standards through representation on more than 20 consensus standard bodies. PHMSA regularly reviews updated consensus standards and considers their merit for inclusion in the HMR.

Section 171.7 lists all materials incorporated by reference (IBR materials) into the HMR. For this rulemaking, we evaluated updated international consensus standards and regulations pertaining to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations, and vessel stowage requirements and determined that the revised standards provide an enhanced level of safety without imposing significant compliance burdens. These materials have a well-established and documented safety history. Their adoption maintains the high safety standard currently achieved under the HMR.

Some commenters (IATA, PRBA, Saft) indicated concern that the fifth revised edition of the UN Recommendations on the Transportation of Dangerous Goods, Manual of Tests and Criteria (UN Manual) was not included among the IBR materials to be updated and suggest that PHMSA include the document.

We agree. PHMSA proposed to incorporate by reference the fifth revised edition of the UN Manual under docket HM–224F published January 11, 2010 (75 FR 1302) because the revised version of the manual contained updated tests for lithium cells and batteries. However, that rulemaking will have an effective date later than this final rule. This rule contains provisions regarding new test requirements for other materials (*e.g.,* explosives) that are found in the updated edition of the UN Manual making it necessary for us to incorporate by reference the fifth edition. Therefore, we are including the updated fifth revised edition of the UN Manual and updating the IBR materials referenced in the HMR by adding and revising material under the following organizations:

- The *American Society for Testing and Materials (ASTM)*
  - ASTM D56–05, Standard Test Method for Flash Point by Tag Closed Tester (Referenced in § 173.120(c)(1)(i)(A); Added to § 171.7).
  - ASTM D86–07a, Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure (Referenced in § 173.121; Added to § 171.7).
  - ASTM D93–08, Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester (Referenced in § 173.120(c)(1)(ii)(A); Added to § 171.7).
  - ASTM D1078–05, Standard Test Method for Distillation Range of Volatile Organic Liquids (Referenced in § 173.121; Added to § 171.7).
  - ASTM D3278–96(2004)e1, Standard Test Methods for Flash Point of Liquids by Small Scale Closed-Cup Apparatus (Referenced in §§ 173.120(c)(1)(i)(B) and 173.120(c)(1)(ii)(B); Added to § 171.7).
  - ASTM D3828–07a, Standard Test Methods for Flash Point by Small Scale Closed cup Tester (Referenced in § 173.120(c)(1)(i)(C); Added to § 171.7).
- The *International Civil Aviation Organization (ICAO)* Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions), 2009–2010 Edition is revised to incorporate 2011–2012 Edition.
- The *International Convention for the Safety of Life at Sea, 1974, as amended (SOLAS)* Amendments 2002, Chapter II–2/Regulation 19, Consolidated Edition 2004 is revised to incorporate the 2009 Edition.
- The *International Maritime Organization (IMO)* International Maritime Dangerous Goods Code, 2008 Edition, Incorporating Amendment 34–08, English Edition, Volumes 1 and 2 is revised to incorporate Amendment 35–10.
- The *International Organization for Standardization (ISO)*
  - ISO 1516:2002(E), Determination of flash/no flash—Closed cup equilibrium method (Referenced in § 173.120; Added to § 171.7).
  - ISO 1523:2002(E), Determination of flash point—Closed cup equilibrium method (Referenced in § 173.120; Added to § 171.7).
  - ISO 2592:1973(E), Petroleum products—Determination of flash and fire points—Cleveland open cup method (Revised to incorporate the 2000 Edition).

○ ISO 2719:2002(E), Determination of flash point—Pensky-Martens closed cup method (Referenced in § 173.120; Added to § 171.7).

○ ISO 3405:2000(E), Petroleum products—Determination of distillation characteristics at atmospheric pressure (Referenced in § 173.121; Added to § 171.7).

○ ISO 3679:2004(E), Determination of flash point—Rapid equilibrium closed cup method (Referenced in § 173.120; Added to § 171.7).

○ ISO 3680:2004(E), Determination of flash/no flash—Rapid equilibrium closed cup method (Referenced in § 173.120; Added to § 171.7).

○ ISO 3924:1999(E), Petroleum products—Determination of boiling range distribution—Gas chromatography method (Referenced in § 173.121; Added to § 171.7).

○ ISO 4626:1980(E), Volatile organic liquids—Determination of boiling range of organic solvents used as raw materials (Referenced in § 173.121; Added to § 171.7).

○ ISO 4706:2008(E), Gas cylinders—Refillable welded steel cylinders—Test pressure 60 bar and below (Referenced in § 178.71; Added to § 171.7).

○ ISO 10297:1999, Gas cylinders—Refillable gas cylinder valves—Specification and type testing, First edition, May 1999, (E) (Revised to incorporate 2006 Edition).

○ ISO 10461:2005, Gas cylinders—Seamless aluminum-alloy gas cylinders, Periodic inspection and testing, Second edition, February 2005, (E) (Revised to incorporate Amendment 1 (2006)).

○ ISO 10692–2:2001(E), Gas cylinders—Gas cylinder valve connections for use in the micro-electronics industry—Part 2: Specification and type testing for valve to cylinder connections (Referenced in § 173.40; Added to § 171.7).

○ ISO 13736:2008(E), Determination of flash point—Abel closed-cup method (Referenced in § 173.120; Added to § 171.7).

○ ISO 16111:2008(E), Transportable gas storage devices—Hydrogen absorbed in reversible metal hydride (Referenced in §§ 173.311 and 178.71; Added to § 171.7).

○ ISO 18172–1:2007(E), Gas cylinders—Refillable welded stainless steel cylinders—Part 1: Test pressure 6 MPa and below (Referenced in § 178.71; Added to § 171.7).

○ ISO 20703:2006(E), Gas cylinders—Refillable welded aluminum-alloy cylinders—Design, construction and testing (Referenced in § 178.71; Added to § 171.7).

• *Organization for Economic Cooperation and Development (OECD)*

○ Guidelines for the Testing of Chemicals, Test Guideline 404, Acute Dermal Irritation/Corrosion (1992) (Revised to incorporate 2002 edition).

○ Guidelines for the Testing of Chemicals, Test Guideline 430, *In Vitro* Skin Corrosion: Transcutaneous Electrical Resistance Test (TER) (2004) (Referenced in § 173.137; Added to § 171.7).

○ Guidelines for the Testing of Chemicals, Test Guideline 431, *In Vitro* Skin Corrosion: Human Skin Model Test (2004) (Referenced in § 173.137; Added to § 171.7).

○ Guidelines for the Testing of Chemicals, Test Guideline 435, *In Vitro* Membrane Barrier Test Method for Skin Corrosion (2006) (Referenced in § 173.137; Added to § 171.7).

• *Transport Canada,* Transportation of Dangerous Goods Regulations, including Clear Language Amendments 1 through 5 (Revised to add SOR/2008–34 (Amendment 6; February 7, 2008) in its entirety and SOR/2007–179 (Amendment 7; July 31, 2007)).

• *The United Nations Recommendations on the Transport of Dangerous Goods, Model Regulations,* fifteenth revised edition (2007), Volumes I and II (Revised to incorporate the sixteenth revised edition).

• *The United Nations Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria,* fourth revised edition, (2003), and Addendum 2 (2004). (Revised to incorporate the fifth revised edition).

Section 171.8

This section defines terms generally used throughout the HMR that have broad or multi-modal applicability. We received no comments regarding our proposed adoption of new definitions. Therefore, in this final rule PHMSA is adding the following defined terms based on their adoption in the UN Model Regulations:

Metal hydride storage system. This term means a single complete hydrogen storage system that includes a receptacle, metal hydride, pressure relief device, shut-off valve, service equipment and internal components used for the transportation of hydrogen only.

Open cryogenic receptacle. This term means a transportable thermally insulated receptacle for refrigerated liquefied gases maintained at atmospheric pressure by continuous venting of the refrigerated gas.

Additionally, we proposed to revise the definition of *Oxidizing gas* to specify that an oxidizing gas is a pure gas or gas mixture with an oxidizing power greater than 23.5% as determined by a method specified in ISO 10156:1996 or 10156–2:2005. *See* also Sections 172.101 and 173.115, for discussion of changes to the "Compressed gas, n.o.s., UN1956." HMT entry and definition, respectively. We received no comments on the revised definition. Therefore, in this final rule we are adopting the revision as proposed.

Section 171.23

Section 171.23 prescribes the conditional requirements for specific materials and packages transported under the various international standards as permitted by the HMR. In this final rule we are removing the § 171.23(b)(9) requirement that stipulates Division 6.1 poisonous materials transported as limited quantities are not excepted from labeling. This change aligns the labeling requirements in the HMR for limited quantities with the international standards without compromising safety.

Section 171.25

Section 171.25 prescribes the additional requirements for specific materials and packages transported under the IMDG Code as permitted by the HMR. In this final rule, we are deleting paragraphs (c)(5) and (d)(3). Paragraphs (c)(5) and (d)(3) required portable tanks, cargo tanks, and tank cars containing cryogenic liquids transported by vessel to be stowed on deck regardless of the stowage requirements authorized under the IMDG Code. The IMDG Code now requires this same stowage for certain packagings containing cryogenic materials aboard a vessel, thus, paragraphs (c)(5) and (d)(3) are no longer necessary.

Effective January 1, 1997, vehicles and mechanical equipment containing internal combustion engines were no longer subject to the IMDG Code as conditionally designated under Amendment 28–96. Effective January 1, 2012, such articles will once again be subject to the IMDG Code under Amendment 35–10. Because the new requirements in the IMDG Code are more stringent than requirements for similar material in the HMR, PHMSA is amending § 171.25 by revising paragraph (b)(1) and adding a new paragraph (b)(4) permitting use of the IMDG Code or the HMR to prepare and stow vehicles and mechanical equipment containing internal combustion engines when offered for transport by vessel.

Part 172

Section 172.101

Introductory text to the § 172.101 HMT contains explanatory text for each of the columns that comprise the HMT. Currently, § 172.101(c)(10) provides specific requirements regarding the selection of an appropriate proper shipping name for mixtures and solutions containing more than one hazardous material of the same hazard class. In many cases, such mixtures and solutions are best described by a generic or "not otherwise specified" entry (*i.e.,* an "n.o.s." entry). For example, a solution containing two or more flammable liquid constituents may best be described under the entry "Flammable liquids, n.o.s., UN1993." However, in some cases where two or more hazardous materials are present, a single hazardous material may predominate where the other hazardous materials may be present in only trace amounts. In such cases, a description applicable to the predominant material may be more appropriate. A recent incident underscores the importance of using the most specific and appropriate shipping description. In that incident, an aluminum cylinder containing 99.9% pure ethyl chloride ruptured in storage incidental to transport. It was determined that the root cause was a reaction between the cylinder's contents and the aluminum. The relevant construction standard for the cylinder indicated that ethyl chloride was reactive with aluminum and that aluminum was not recommended for the transport of ethyl chloride. However, the shipper selected a generic compressed gas shipping description rather than the ethyl chloride name due to the presence of trace amounts of other hazardous materials. While we note that the general requirements for packagings still broadly address the responsibility of the shipper in selecting a packaging that is compatible with its lading, and that these requirements were also applicable and apparently overlooked, the incident nonetheless highlights the benefit of using a more specific description, where appropriate, to help ensure that the most appropriate transport provisions are followed.

To address this issue, the UN Model Regulations were amended to require, except as otherwise specified, that a mixture or solution of a single predominant hazardous material containing only traces of one or more additional hazardous materials listed by name in the HMT or additional non-hazardous constituents be assigned the UN number and proper shipping name of the predominant material contributing to the overall hazard classification of the mixture or solution. Adopting a similar provision in the HMR will enhance a shipper's ability to select the most appropriate shipping description. In the NPRM, PHMSA proposed to add a new paragraph, § 172.101(c)(10)(iv), outlining the authorization to describe the mixture or solution based on the predominant material contributing to the hazard classification.

One commenter (DOE) suggested that we remove the reference to non-hazardous material in § 172.101(c)(10)(iv) because the mixture of hazardous material and non-hazardous material is already addressed in § 172.101(c)(10)(i). Additionally, the commenter asked for clarification of instances when the provision should be used and asked to define the meaning of "trace amounts."

We agree. It is correct that § 172.101(c)(10)(i) already addresses a mixture or solution of a hazardous material and non-hazardous material. The provision pertains to a mixture or solution containing non-hazardous material in such quantities that it does not alter the physical state or purity of the hazardous material it is mixed with, as well as either the hazard classification, packing group, subsidiary hazard, or emergency response procedures. The intent of new paragraph § 172.101(c)(10)(iv) is to provide instruction for selecting the most appropriate proper shipping name for a mixture or solution of a hazardous material and traces of one or more other hazardous materials, one or more non-hazardous materials, or both. Where such a mixture or solution occurs that the trace amount of material does not affect the classification, the material must be described using the most appropriate proper shipping name for the predominant hazardous material. Based on the comment received and reconsideration of our proposal, we are instead revising paragraph (c)(10)(i) to provide clarification on properly describing a material that is a mixture or solution of a predominant hazardous material and trace amounts of hazardous or non-hazardous material, or both; rather than add a new paragraph (c)(10)(iv). The six conditions in § 172.101(c)(10)(i) that currently limit a mixture or solution of hazardous material with a non-hazardous material from being described using the proper shipping name of the hazardous material would also apply to a mixture or solution of a single predominant hazardous material and trace amounts of other hazardous or non-hazardous materials or both.

With regard to instances when the provision would be used, we would expect it to be applied in cases of mixtures or solutions of a hazardous material that contain small amounts of preservatives or are contaminated with trace amounts of hazardous material in such a way that the "trace amounts" do not affect the packaging, the hazard class, the packing group, *etc* of the hazardous material. As for defining "trace amounts" we do not specifically define this term because determination of when an amount of material affects the hazard classification is highly variable depending on the physical and chemical properties of the materials involved and the quantities of material involved. Therefore, in this final rule, we are revising § 172.101(c)(10)(i) to provide instruction on properly describing a material that is a mixture or solution of a predominant hazardous material and trace amounts of hazardous or non-hazardous material, or both.

Paragraph (e) of § 172.101 provides explanations for the letters that precede identification numbers assigned to proper shipping names in the HMT. In this final rule, PHMSA is adding an explanation for identification numbers associated with certain descriptions under the ICAO Technical Instructions and are preceded by the letters "ID." Additionally, PHMSA is authorizing use of the international air description, "ID8000, Consumer commodity, 9" in the HMT with material and article eligibility for use of the description based on Special provision A112 and Packing Instruction Y963 of the 2011–2012 ICAO Technical Instructions.

Hazardous Materials Table (HMT)

In this final rule, PHMSA is making various amendments to the HMT. Readers should review all changes for a complete understanding of the amendments. For purposes of the Government Printing Office's typesetting procedures, changes to the HMT appear under three sections of the Table, "remove," "add," and "revise." Certain entries in the HMT, such as those with revisions to the proper shipping names, appear as a "remove" and "add." Amendments to the HMT include the following:

New HMT entries

UN3482	Alkali metal dispersions, flammable *or* Alkaline earth metal dispersions, flammable.
UN3496	Batteries, nickel-metal hydride.

This new HMT entry for UN3496 includes a W in Column (1) to indicate use of this hazardous materials description is limited to vessel transport of these materials.

Two commenters (Saft, PRBA) indicated concern with our proposed assignment of Special Provision 130 (for transportation of dry batteries—*i.e.,* "Batteries, dry, sealed, n.o.s.") to this entry and the potential for confusion leading to use of this entry for modes other than vessel.

We agree. To help clarify the use of this entry, we have included additional language in Column (2) to refer shippers transporting nickel-metal hydride batteries by modes other than vessel to the HMT entry "Batteries, dry, sealed, n.o.s." for instruction on the transport requirements for nickel-metal hydride batteries. Additionally, we have revised Special Provision 130 to make clear that for other than nickel-metal hydride batteries transported by vessel subject to Special Provision 340, dry batteries must be transported in accordance with Special Provision 130.

UN3485	Calcium hypochlorite, dry, corrosive *or* Calcium hypochlorite mixtures, dry, corrosive *with more than 39% available chlorine (8.8% available oxygen).*
UN3487	Calcium hypochlorite, hydrated, corrosive *or* Calcium hypochlorite, hydrated mixture, corrosive *with not less than 5.5% but not more than 16% water.*
UN3486	Calcium hypochlorite mixture, dry, corrosive *with more than 10% but not more than 39% available chlorine.*
ID8000	Consumer commodity.

This shipping description is added to the HMT as a Class 9 miscellaneous hazardous material to be used for the air transportation of limited quantities of certain hazardous materials of Class 2 (non-toxic aerosols only), Class 3 (PG II and III only), Division 6.1 (PG III only), and of UN identification numbers UN3077, UN3082, and UN3175, provided such materials do not have a subsidiary risk and are authorized aboard a passenger-carrying aircraft. This amendment is based on changes incorporated into the 2011–2012 ICAO TI.

UN3484	Hydrazine aqueous solution, flammable *with more than 37% hydrazine, by mass.*
UN3495	Iodine.

Iodine is transported globally under a number of different shipping descriptions dependent on the shipper. In the interest of reducing risks associated with transport of iodine under various descriptions and therefore, various packaging, we are adding this unique UN identification number and shipping description to provide for specific packaging requirements and faster identification and access to emergency response information.

UN1471	Lithium hypochlorite, dry *or* Lithium hypochlorite mixture, Division 5.1, PG III.

Lithium hypochlorite is a common commercial product used as a disinfectant that is often mixed with other non-hazardous organic salts. Currently, the HMT only provides for a Division 5.1, PG II designation for this material, yet testing conducted in accordance with the UN Manual of Tests and Criteria has indicated that some common commercial mixtures meet the criteria for classification in Division 5.1, PG III. Therefore, PHMSA is adding a line to the current entry to allow for classification of lithium hypochlorite and mixtures of lithium hypochlorite in PG III, where appropriate.

One commenter (FMC) noted that the addition of the proposed PG III entry for the "Lithium hypochlorite, UN1471" shipping description retains the italicized text "with more than 39% available chlorine (8.8% available oxygen)" as well as the word "dry" for lithium hypochlorite mixtures and that this is not consistent with the hazardous materials description in the dangerous goods list in the UN Model Regulations, the ICAO Technical Instructions, and the soon to be adopted IMDG Code. FMC requested that PHMSA revise the entry by deleting the qualifying text as well as the word "dry" to be consistent with international standards and regulations and to provide shippers with the most appropriate shipping description for the transport of lithium hypochlorite materials. Additionally, FMC stated:

> [M]ore fundamental and practical problems will arise if this qualifying text is retained in the HMR entry for UN1471. Some of the commercial lithium hypochlorite products shipped domestically and internationally by FMC have less than 39% available chlorine (8.8% available oxygen), and so would not be properly described by the entry as it is proposed to be modified. [T]hese products nevertheless meet the criteria for classification in Division 5.1, Packing Group II or III. Consequently, under the HMR, FMC must describe these products by an appropriate entry in the HMT associated with the correct class and packing group, namely "Hypochlorites, inorganic, n.o.s." (UN3212) if the product meets Packing Group II criteria, or, since UN3212 does not provide a Packing Group III option, "Oxidizing solid, n.o.s." (UN1479) if the product meets the criteria for assignment to Packing Group III. Thus, for road and rail transport within the United States FMC's lithium hypochlorite products would have to be described by one of three different entries.

We agree. Removing the italicized text would facilitate a uniform process of describing lithium hypochlorite materials for transport purposes without reducing the safety of transport when using this description in lieu the descriptions discussed in the comment by FMC. Additionally, we are making a conforming amendment (with the IMDG Code) to the PG II entry for UN1471 to assign special provisions T3 and TP33 applicable to a portable tank when used to transport this material. T3 outlines

the minimum test pressure, minimum shell thickness, bottom opening requirements, and pressure relief requirements in addition to the design and constructions requirements for the portable tank. TP33 outlines provisions for transport of granular or powdered solids. Therefore, in this final rule, we are adopting the PG III entry for "Lithium hypochlorite, UN1471" without the italicized text and the word "dry," as well as making a conforming revision to the shipping description for the PG II entry already in the HMT to read, "Lithium hypochlorite, dry *or* Lithium hypochlorite mixtures, UN1471."

UN3483	Motor fuel anti-knock mixture, flammable.
UN3494	Petroleum sour crude oil, flammable, toxic (this entry is identified in the HMT as appropriate for international transportation under § 172.101(b)(5)).
UN3492	Toxic-by-inhalation liquid, corrosive, flammable, n.o.s. *with an inhalation toxicity lower than or equal to 200 ml/m³ and saturated vapor concentration greater than or equal to 500 LC_{50}.*
UN3493	Toxic-by-inhalation liquid, corrosive, flammable, n.o.s. *with an inhalation toxicity lower than or equal to 1000 ml/m³ and saturated vapor concentration greater than or equal to 10 LC_{50}.*
UN3488	Toxic-by-inhalation liquid, flammable, corrosive, n.o.s. *with an inhalation toxicity lower than or equal to 200 ml/m³ and saturated vapor concentration greater than or equal to 500 LC_{50}.*
UN3489	Toxic-by-inhalation liquid, flammable, corrosive, n.o.s. *with an inhalation toxicity lower than or equal to* 1000 ml/m³ and saturated vapor concentration greater than or equal to 10 LC_{50}.
UN3490	Toxic-by-inhalation liquid, water-reactive, flammable, n.o.s. *with an inhalation toxicity lower than or equal to 200 ml/m³ and saturated vapor concentration greater than or equal to 500 LC_{50}.*
UN3491	Toxic-by-inhalation liquid, water-reactive, flammable, n.o.s. *with an inhalation toxicity lower than or equal to 1000 ml/m³ and saturated vapor concentration greater than or equal to 10 LC_{50}.*

Based on a recommendation by a commenter (PPG), we note that two new entries for toxic-by-inhalation (TIH) material (*i.e.*, UN3492 and UN3493) added in the sixteenth revised edition of the UN Model Regulations and in this final rule will likely be removed from the dangerous goods table in the seventeenth revised edition of the UN Model Regulations. Shippers who choose to use these new descriptions on shipping papers and markings on boxes may incur additional costs when having to change the material descriptions again should the descriptions be removed from the UN Model Regulations and subsequently, the HMR.

Additionally, because of the addition of generic TIH descriptions for toxic, flammable, corrosive material (*i.e.*, UN 3488, UN3499), PPG believes the domestic entries for "sec-Butyl chloroformate, NA2742" and "Isobutyl chloroformate, NA2742" are obsolete and recommended that these materials be described using the generic TIH descriptions for consistent hazard communication of these materials between modes of transportation.

We agree. Therefore, in this final rule, as a conforming amendment to the addition of the generic TIH entries, we are deleting the domestic use entries "sec-Butyl chloroformate, NA2742" and "Isobutyl chloroformate, NA2742" from the HMT.

Amendments to the Column (1) Symbols

The entries "Elevated temperature liquid, flammable, n.o.s., *with flash point above 37.8 °C, at or above its flash point,* UN3256," "Elevated temperature liquid, n.o.s., *at or above 100 °C and below its flash point (including molten metals, molten salts, etc.),* UN3257," and "Elevated temperature solid, n.o.s., *at or above 240 °C,* UN3258" are revised by adding the symbol G. The symbol G identifies proper shipping names for which a technical name of the hazardous material is required in parentheses in association with the basic description. Requiring the technical name(s) for certain elevated temperatures materials will help emergency responders in selecting the proper materials for extinguishing a fire involving these hazardous materials and will aid in estimating the temperature properties of the materials (*e.g.,* the melting point).

The entries "Metal catalyst, dry, UN2881" and "Metal catalyst, wetted *with a visible excess of liquid,* UN1378" are revised by adding the symbol G. The symbol G identifies proper shipping names for which a technical name of the hazardous material is required in parentheses in association with the basic description. Requiring the technical name(s) for metal catalysts will aid emergency responders in selecting the proper fire suppressant (*e.g.,* CO_2) if the hazardous material is involved in a fire or in identifying other materials the metal catalyst could react with.

The entry "Powder, smokeless, UN0509," is revised by deleting the symbol D. The symbol D identifies a proper shipping name for domestic use only. This entry has been adopted into the UN Model Regulations, the ICAO TI, and the IMDG Code. This deletion is consistent with our final rule published under Docket HM–215J (74 FR 2200, January 14, 2009) in which we indicated our intent to remove the symbol D in a future rulemaking upon adoption of the entry into international regulations.

For the following Division 5.1 (oxidizer) materials and Division 6.1 (toxic) materials, the entries are revised by adding the symbol G. The symbol G identifies proper shipping names for which one or more technical names of the hazardous material must be entered in parentheses in association with the basic description on a shipping paper. Knowledge of the technical name of toxic materials may aid emergency responders with implementing more appropriate first aid measures:

UN3141	Antimony compounds, inorganic, liquid, n.o.s.
UN1549	Antimony compounds, inorganic, solid, n.o.s.
UN1556	Arsenic compounds, liquid, n.o.s. *inorganic, including arsenates, n.o.s.; arsenites, n.o.s.; arsenic sulfides, n.o.s.; and organic compounds of arsenic, n.o.s.*
UN1557	Arsenic compounds, solid, n.o.s. *inorganic, including arsenates, n.o.s.; arsenites, n.o.s.; arsenic sulfides, n.o.s.; and organic compounds of arsenic, n.o.s.*
UN1564	Barium compounds, n.o.s.
UN1566	Beryllium compounds, n.o.s.
UN3213	Bromates, inorganic, aqueous solution, n.o.s.
UN1450	Bromates, inorganic, n.o.s.

UN2570	Cadmium compounds.
UN3210	Chlorates, inorganic, aqueous solution, n.o.s.
UN1461	Chlorates, inorganic, n.o.s.
UN1462	Chlorites, inorganic, n.o.s.
UN1583	Chloropicrin mixtures, n.o.s.
UN3362	Chlorosilanes, toxic, corrosive, flammable, n.o.s.
UN3361	Chlorosilanes, toxic, corrosive, n.o.s.
UN1935	Cyanide solutions, n.o.s.
UN2856	Fluorosilicates, n.o.s.
UN3212	Hypochlorites, inorganic, n.o.s.
UN2291	Lead compounds, soluble, n.o.s.
UN2024	Mercury compounds, liquid, n.o.s.
UN2025	Mercury compounds, solid, n.o.s.
UN3144	Nicotine compounds, liquid, n.o.s. *or* Nicotine preparations, liquid, n.o.s.
UN1665	Nicotine compounds, solid, n.o.s. *or* Nicotine preparations, solid, n.o.s.
UN3219	Nitrites, inorganic, aqueous solution, n.o.s.
UN2627	Nitrites, inorganic, n.o.s.
UN3214	Permanganates, inorganic, aqueous solution, n.o.s.
UN1482	Permanganates, inorganic, n.o.s.
UN2026	Phenylmercuric compounds, n.o.s.
UN2630	Selenates *or* Selenites.
UN3440	Selenium compound, liquid, n.o.s.
UN3283	Selenium compound, solid, n.o.s.
UN3284	Tellurium compound, solid, n.o.s.
UN3285	Vanadium compound, solid, n.o.s.

Amendments to the Column (2) Hazardous Materials Descriptions and Proper Shipping Names

The proper shipping name for the entry "Detonator, assemblies, non-electric, *for blasting,* UN0500," is revised by removing the comma after "Detonator" to read "Detonator assemblies, non-electric, *for blasting.*" This revision appears as a "Remove/Add" in this rulemaking.

The proper shipping name for the entry "Engines, internal combustion, *flammable gas powered,* UN3166," is revised to read "Engines, internal combustion *or* Engines, fuel cell, *flammable gas powered.*" This revision appears as a "Remove/Add" in this rulemaking.

One commenter (IATA) suggests that we revise this proper shipping name to the singular "engine" in alignment with use of the singular form for the entries in the UN Model Regulations. We disagree. As indicated by the commenter, § 172.101(c)(1) authorizes use of proper shipping names in the singular or plural form. Therefore, we believe it is not necessary to revise the proper shipping name to the singular "engine" when the shipper is authorized to modify the proper shipping name between singular and plural forms.

The proper shipping name for the entry "Engines, internal combustion, *flammable liquid powered,* UN3166," is revised to read "Engines, internal combustion *or* Engines, fuel cell, *flammable liquid powered.*" This revision appears as a "Remove/Add" in this rulemaking.

One commenter (IATA) suggests that we revise this proper shipping name to the singular "engine" in alignment with use of the singular form for the entries in the UN Model Regulations. We disagree. As indicated by the commenter, § 172.101(c)(1) authorizes use of proper shipping names in the singular or plural form. Therefore, we believe it is not necessary to revise the proper shipping name to the singular "engine."

The proper shipping names "Formaldehyde, solutions, flammable, UN1198" and "Formaldehyde, solutions, *with not less than 25 percent formaldehyde,* UN2209" are revised to remove an errant comma between the words "Formaldehyde" and "solutions." This revision appears as a "Remove/Add" in this rulemaking.

The proper shipping name for the entry "1-Hydroxybenzotriazole, anhydrous, wetted *with not less than 20 percent water, by mass,* UN3474" is revised to read "1-Hydroxybenzotriazole, monohydrate." This revision appears as a "Remove/Add" in this rulemaking.

The proper shipping name for the PG II entry for Lithium hypochlorite, dry *with more than 39% available chlorine (8.8% available oxygen) or* Lithium hypochlorite mixture, dry *with more than 39% available chlorine (8.8% available oxygen),* UN1471" is revised to read "Lithium hypochlorite, dry *or* Lithium hypochlorite mixture" to conform with the addition of the new PG III entry and international use of this proper shipping name. This revision appears as a "Remove/Add" in this rulemaking.

The proper shipping name for the entry "Nitric acid *other than red fuming, with less than 65 percent nitric acid,* UN2031" is revised to read "Nitric acid *other than red fuming, with more than 20 percent and less than 65 percent nitric acid,* UN2031." The proper shipping name for the Packing Group I entry "Nitric acid *other than red fuming, with more than 70 percent nitric acid,* UN2031" is added to the HMT. In a final rule published on January 14, 2009 (HM–215J; 74 FR 2200), errors were made to both nitric acid entries and in this final rule, PHMSA aligns them correctly in accordance with the various international standards. Additionally, we are removing the outdated Packing Group II entry "Nitric acid *other than red fuming, with not more than 70 percent nitric acid,* UN2031" that should have been removed from the HMT in the same final rule.

The proper shipping name for the entry "Tars, liquid *including road asphalt and oils, bitumen and cut backs,* UN1999" is revised to read "Tars, liquid *including road oils and cutback bitumens.*" The entries in the HMT applicable to transport of bitumen may cause confusion with respect to the proper classification of the material. The entries include "Combustible liquid, n.o.s., NA1993, combustible liquid" and "Tars, liquid *including road asphalt and oils, bitumen and cut backs,* UN1999, 3," and the entries "Elevated temperature liquid, flammable, n.o.s., UN3256, 3" and "Elevated temperature liquid, n.o.s., UN3257, 9," when the material is heated and offered for transport. Bitumen is a hydrocarbon material derived from crude oil having a flashpoint of 160 °C or greater. Bitumens typically do not meet the classification for a Class 3 flammable

liquid except for cutback bitumens which are blended with a flammable material such as kerosene. Also, road asphalt is bitumen mixed with sand and fillers which also does not meet the classification for a Class 3 flammable liquid. Therefore, we are revising the proper shipping name "Tars, liquid *including road asphalt and oils, bitumen and cut backs*" by removing reference to asphalt and clarifying applicability to cutback bitumens to read "Tars, liquid *including road oils and cutback bitumens*." This revision appears as a "Remove/Add" in this rulemaking.

The proper shipping name for the entry "Trinitro-meta-cresol, UN0216" is revised to read "Trinitro-m-cresol." This revision appears as a "Remove/Add" in this rulemaking.

The proper shipping name for the entry "Vehicle, flammable gas powered, UN3166," is revised to read "Vehicle, flammable gas powered *or* Vehicle, fuel cell, flammable gas powered." This revision appears as a "Remove/Add" in this rulemaking.

The proper shipping name for the entry "Vehicle, flammable liquid powered, UN3166," is revised to read "Vehicle, flammable liquid powered *or* Vehicle, fuel cell, flammable liquid powered." This revision appears as a "Remove/Add" in this rulemaking.

Amendments to the Column (3) Hazard Class or Division

PHMSA is revising the classification of a number of entries to Division 6.1 poisonous primary hazards for consistency with the adoption of classification changes into the sixteenth revised edition of the UN Model Regulations. The changes are based on data provided from a thorough review of literature on toxic-by-inhalation materials. The review of literature is provided in Informal Document UN/SCETDG/33/INF.8 submitted to the 33rd session of the UN Sub-Committee of Experts on the Transport of Dangerous Goods which is available at *http://www.unece.org/trans/main/dgdb/dgsubc/c3inf33.html*.

For the entry "Tetranitromethane, UN1510," the Class 5 (oxidizer) material's primary hazard is revised to a Division 6.1 (poisonous) material primary hazard.

For the following Class 3 (flammable liquid) materials, the Class 3 primary hazard is revised to a Division 6.1 (poisonous) material primary hazard.

UN2481	Ethyl isocyanate.
UN2486	Isobutyl isocyanate.
UN2483	Isopropyl isocyanate.
UN3079	Methacrylonitrile, stabilized.
UN2605	Methoxymethyl isocyanate.

For the following Class 8 (corrosive) materials, the Class 8 primary hazard is revised to a Division 6.1 (poisonous) material primary hazard.

UN1810	Phosphorous oxychloride.
UN1834	Sulfur chloride.
UN1838	Titanium tetrachloride.

Amendments to the Column (5) Packing Group (PG)

The entry "Carbon dioxide, solid *or* Dry ice, UN1845" is revised by deleting the PG III designation. In general, the PG assigned to a material identifies the degree of hazard the material represents and determines the performance level of the packaging required for the material. For example, a PG II material (*i.e.,* a moderate hazard material) is considered more hazardous and requires more stringent packaging than a PG III material (*i.e.,* a low hazard material). Dry ice presents minimal risk during transport except where concentrations may build up in a confined space. Therefore, in this final rule, PHMSA is deleting the PG III designation from the entry.

For the following Division 6.1 poisonous materials, the PG is revised to read PG I.

UN2668	Chloroacetonitrile.
UN1810	Phosphorous oxychloride.
UN2474	Thiophosgene.
UN1838	Titanium tetrachloride.

PHMSA is making this revision to the PG assignment for these entries for consistency with the adoption of changes into the sixteenth revised edition of the UN Model Regulations. The changes are based on data provided from a thorough review of literature on toxic-by-inhalation materials. The review of literature is provided in Informal Document UN/SCETDG/33/INF.8 submitted to the 33rd session of the UN Sub-Committee of Experts on the Transport of Dangerous Goods which is available at *http://www.unece.org/trans/main/dgdb/dgsubc/c3inf33.html*.

Amendments to the Column (6) Label(s)

For the following hazardous material entries, PHMSA is revising the label requirements for consistency with changes made to the classification of these materials under amendments to Column (3) (*see* above). The Class 3 (flammable liquid), Class 8 (corrosive), or Division 5.1 (oxidizer) primary hazard labels, as appropriate, and the Division 6.1 (poisonous) subsidiary hazard label are revised to a Division 6.1 (poisonous) material primary hazard label and Class 3, Class 8, or Division 5.1 subsidiary hazard label to read "6.1, 3," "6.1, 8," or "6.1, 5.1," as appropriate.

UN2481	Ethyl isocyanate.
UN2486	Isobutyl isocyanate.
UN2483	Isopropyl isocyanate.
UN3079	Methacrylonitrile, stabilized.

UN2605	Methoxymethyl isocyanate.
UN1810	Phosphorous oxychloride.
UN1834	Sulfur chloride.
UN1838	Titanium tetrachloride.

The entry "Chlorosilanes, toxic, corrosive, flammable, n.o.s., UN3362" is revised by correctly ordering the sequence of labeling hazards to reflect the proper shipping name to read "6.1, 8, 3."

Amendments to the Column (7) Special Provisions

The entry "Chloropicrin, UN1580" is revised by replacing the portable tank instruction T Code T14 with T22. The UN Committee of Experts on the Transport of Dangerous Goods revised the T Code assignment for a number of Division 6.1 (toxic-by-inhalation) materials from T14 to T22. Assigning T22 requires a higher pressure for the periodic hydrostatic test (6 bar to 10 bar) and a thicker minimum shell thickness (6 mm to 10 mm). Therefore, for consistency with revisions made to the T Code assignments under the sixteenth revised edition of the UN Model Regulations, we are revising the T Code to read T22.

The entry "Compressed gas, n.o.s., UN1956" is revised by deleting special provision 77 which authorizes the use of this entry for mixtures of gases with less than 23.5% oxygen when no other oxidizing gases are present. Because we are modifying the definition of oxidizing gas in § 171.8 of the HMR to indicate that "a gas which may, by providing oxygen, cause or contribute to the combustion of other material more than air does means pure gases or gas mixtures with an oxidizing power greater than 23.5% oxygen" and because the entry "Compressed gas, oxidizing, n.o.s., UN3156" is currently available in the HMT, the special provision is redundant and no longer necessary.

The entry "Environmentally hazardous substance, solid, UN3077" is revised by adding new special provision A112 authorizing the transportation of certain IBCs containing this material up to a maximum net quantity of 1,000 kg by passenger or cargo-only aircraft.

The entry "Ethylene oxide *or* Ethylene oxide with nitrogen *up to a total pressure of 1 MPa (10 bar) at 50 degrees C,* UN1040 is revised by deleting special provision A59 and adding new special provision 342. The provisions in A59 applied only to air transport but they now apply to all modes under new Special provision 342. *See* Section 172.102 special provisions for a discussion of new special provision 342.

The entry "1-Hydroxybenzotriazole, monohydrate, UN3474" is revised by deleting special provision 162. Special provision 162 requires that for the material to be transported as a Division 4.1 desensitized material, it must be transported in such a manner that at no time during the course of transportation does the percentage concentration of water fall below 20%. Anhydrous hydroxybenzotriazole rapidly converts to the monohydrate form in the presence of water, that is, the thermally stable form of the substance. Additionally, tests have indicated that the monohydrate maintains its water content under temperature conditions encountered in storage and transport over extended periods of time. This conforms to the intent of the provisions specified in special provision 162 and therefore, we are deleting special provision 162 from the entry.

The entry "Motor fuel anti-knock mixtures, UN1649" is revised by deleting special provision 151. Special provision 151 requires that if this material also meets the definition of a Class 3 (flammable) liquid under § 173.120 of the HMR, a FLAMMABLE LIQUID label is required and the basic description on the shipping paper must indicate the Class 3 subsidiary hazard. However, because of the addition of the new entry "Motor fuel anti-knock mixtures, flammable, UN3483" which indicates a Class 3 subsidiary hazard, we believe it is no longer necessary to assign special provision 151 to this entry.

The entry "Nitrogen, refrigerated liquid cryogenic liquid, UN1977" is revised by adding new special provisions 345 and 346. *See* Section 172.102 special provisions for a discussion of new special provisions 345 and 346.

The entry "Oxygen, compressed, UN1072" is revised by adding special provision 110 authorizing an actuating cartridge (*e.g.,* power device cartridges of Division 1.4, compatibility groups C and S) to be installed on a cylinder containing oxygen without changing the classification of Division 2.2. *See* Section 172.102 special provisions for a discussion of our revision to special provision 110.

The entry "Pentaerythrite tetranitrate *or* Pentaerythritol tetranitrate *or* PETN, *with not less than 7 percent wax by mass,* 0411)" is revised by assigning special provision 120 to the entry. A final rule published in the **Federal Register** under Docket HM–215B (62 FR 24689, May 6, 1997), added special provision 120 to § 172.102(c)(1) of the HMR and assigned it to one of the phlegmatized HMT entries for PETN (UN0411). In this final rule, PHMSA is reassigning special provision 120 to UN0411 in Column (7) of the HMT because it never appeared in the subsequent printing of the HMR but the requirement remains valid.

The entry "Petroleum crude oil, UN1267" is revised by adding new special provision 357 instructing a shipper, if applicable, to use the entry "Petroleum sour crude oil, flammable, toxic, UN3494" for petroleum crude oil containing hydrogen sulfide in sufficient concentration that vapors evolved from the crude oil can present an inhalation hazard when this material is offered for transportation internationally. *See* Section 172.102 Special provisions for a discussion of special provision 357.

The entry "Zinc ammonium nitrate, UN1512" is revised by deleting special provision IP2 which requires IBCs other than metal or rigid plastic IBCs to be offered for transportation in a closed freight container or a closed transport vehicle.

The following Division 1.4, Compatibility Group S (1.4S) explosive article entries in the HMT are revised by adding new special provision 347 which limits the use of the entries to only those articles that have successfully passed Test series 6(d) of Part I of the UN Manual of Tests and Criteria. For clarity, we are also adding the special provision to the entry "Cartridges, power device (used to project fastening devices), ORM–D" to indicate that the requirements for special provision 347 also apply to Division 1.4S articles that may be reclassed as ORM–D. *See* Section 172.102 Special Provisions for a discussion of new special provision 347.

UN0323	Cartridges, power device.
UN0460	Charges, bursting, plastics bonded.
UN0445	Charges, explosive, commercial *without detonator*.

UN0441	Charges, shaped *without detonator*.
UN0500	Detonator assemblies, non-electric *for blasting*.
UN0456	Detonators, electric *for blasting*.
UN0366	Detonators for ammunition.
UN0455	Detonators, non-electric *for blasting*.

The following Division 6.1 (toxic-by-inhalation) materials entries are revised by replacing the portable tank instruction T Code T22 with T20. The UN Committee of Experts on the Transport of Dangerous Goods revised the T Code assignment for a number of Division 6.1 (toxic-by-inhalation) materials from T14 to T20. Assigning T20 requires a higher pressure for the periodic hydrostatic test (6 bar to 10 bar) and a thicker minimum shell thickness (6 mm to 8 mm). This change is consistent with the T Code assigned to the same materials in the HMT. However, for the materials listed below, we assigned a T Code T22 which requires a minimum shell thickness of 10 mm. We do not believe there would be a safety risk in reducing the minimum shell thickness for portable tanks containing these materials from 10 mm to 8 mm. Therefore, for consistency with revisions made to the T Code assignments under the sixteenth revised edition of the UN Model Regulations as well as consistency with the current assignment of T20 to a number of other Division 6.1 (toxic-by-inhalation material) entries, the T Code T20 would be assigned for the following materials.

UN2484	tert-Butyl isocyanate.
UN2481	Ethyl isocyanate.
UN2486	Isobutyl isocyanate.
UN2483	Isopropyl isocyanate.
UN2605	Methoxymethyl isocyanate.
UN2482	n-Propyl isocyanate.

The following Division 6.1 (toxic-by-inhalation) material entries are revised by adding the portable tank special provision TP13 as a conforming amendment to the changes to the PG assignment for these materials (*see Amendments to Column (5)* above). Special provision TP13 requires the use of self-contained breathing apparatus when the hazardous material is transported by vessel.

UN2668	Chloroacetonitrile.
UN1810	Phosphorous oxychloride.
UN1834	Sulfur chloride.
UN2474	Thiophosgene.

The following organometallic substance entries are revised by adding portable tank special provision TP36 which authorizes use of fusible elements in the vapor space on portable tanks transporting these materials. *See* Section 178.275 for a discussion of the authorized use of fusible elements on portable tanks.

UN3392	Organometallic substance, liquid, pyrophoric.
UN3394	Organometallic substance, liquid, pyrophoric, water-reactive.
UN3398	Organometallic substance, liquid, water-reactive.
UN3399	Organometallic substance, liquid, water-reactive, flammable.
UN3391	Organometallic substance, solid, pyrophoric.
UN3393	Organometallic substance, solid, pyrophoric, water-reactive.
UN3400	Organometallic substance, solid, self-heating.
UN3395	Organometallic substance, solid, water-reactive.
UN3396	Organometallic substance, solid, water-reactive, flammable.
UN3397	Organometallic substance, solid, water-reactive, self-heating.

The following Division 5.1 (oxidizer) substance entries are revised by adding new special provision W1. Special provision W1 excepts these substances from the HMR for vessel transport when transported in non-friable prill or granule form provided the substance has been successfully tested in accordance with the UN Manual of Tests and Criteria.

UN1486	Potassium nitrate.
UN1498	Sodium nitrate.
UN1499	Sodium nitrate and potassium nitrate mixtures.

Amendments to the Column (8) Packaging Authorizations

The four flammable liquid entries "Alcohols, n.o.s., UN1987," "Ethanol, UN1170," "Formaldehyde solutions, flammable, UN1198" and "Isopropanol, UN1219" are revised in Column (8A) by adding reference to § 173.4b for additional exceptions for these materials. Section 173.4b prescribes the requirements for *de minimis* quantities of hazardous materials offered for transportation and transported by all modes, domestic or international. We

are adding a new paragraph (b) to except non-infectious specimens (*e.g.,* museum specimens) preserved with small amounts of certain Class 3 materials from the HMR as recently adopted in the international standards. This amendment is consistent with previous interpretations we have issued on this matter.

The entry "Hydrogen in a metal hydride storage system *or* Hydrogen in a metal hydride storage system contained in equipment *or* Hydrogen in a metal hydride storage system packed with equipment, UN3468" is revised in Column (8B) by deleting the reference to § 173.214 for authorized non-bulk packaging and adding new section reference § 173.311. *See* Section 173.311 for a discussion of authorized packaging provisions for hydrogen in a metal hydride storage system.

The entry "Polyester resin kit, UN3269" is revised by amending Columns (8A) and (8B) to read 165 in reference to packaging provisions in § 173.165. Column (8A) previously referred to § 173.152 and Column (8B) referred to § 173.225 for authorized packaging. For clarity and consistency, such articles are now subject to packaging provisions incorporated into the HMR specific to these articles.

Amendments to the Column (9) Quantity Limitations

We received three comments (3M, IATA, UPS) requesting that PHMSA harmonize with ICAO Technical Instructions amendments that forbid the transport of certain chlorosilane materials in passenger aircraft (UN1818, UN2434, UN2437, UN2986, and UN2987).

We agree. Our original intent was to incorporate these amendments in the August 2010 proposed rule. Therefore, based on our intent and comments received, the following entries are revised by amending the Column (9A) package quantity limitations for passenger air and rail to read "Forbidden," consistent with the 2011–2012 ICAO Technical Instructions:

UN1818	Silicon tetrachloride.
UN2434	Diphenyldichlorosilane.
UN2437	Methylphenyldichlorosilane.
UN2986	Chlorosilanes, corrosive, flammable, n.o.s.
UN2987	Chlorosilanes, corrosive, n.o.s.

The entries "Medicine, liquid, flammable, toxic, n.o.s., UN3248," "Medicine, liquid, toxic, n.o.s., UN1851," and "Medicine, solid, toxic, n.o.s., UN3249" are revised in the Column (9A) and (9B) package quantity limitations authorizing a greater maximum quantity per package consistent an changes made to the 2011–2012 ICAO TI.

Amendments to the Column (10) Vessel Stowage Requirements

Vessel stowage location (10A). For the following materials, we are revising the authorized stowage locations in Column (10A) by revising the stowage category to read D. Assignment of stowage category D means the material must be stowed "on deck only" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers or one passenger per each 3 meters of overall vessel length. The material is prohibited on passenger vessels in which the limiting number is exceeded.

UN1951	Argon, refrigerated liquid *(cryogenic liquid)*.
UN2187	Carbon dioxide, refrigerated liquid.
UN1143	Crotonaldehyde *or* Crotonaldehyde, stabilized.
UN1963	Helium, refrigerated liquid *(cryogenic liquid)*.
UN1970	Krypton, refrigerated liquid *(cryogenic liquid)*.
UN1647	Methyl bromide and ethylene dibromide mixtures, liquid.
UN2644	Methyl iodide.
UN2477	Methyl isothiocyanate.
UN2606	Methyl orthosilicate.
UN1913	Neon, refrigerated liquid *(cryogenic liquid)*.
UN2201	Nitrous oxide, refrigerated liquid.
UN2337	Phenyl mercaptan.
UN1810	Phosphorous oxychloride.
UN1834	Sulfur chloride.
UN2474	Thiophosgene.
UN1838	Titanium tetrachloride.
UN2591	Xenon, refrigerated liquid *(cryogenic liquids)*.

Vessel stowage codes (10B). For the following hazardous materials, we are removing from Column (10B) stowage code 18 (stowage code 143 for UN3392), which prohibits the material from being transported on any vessel carrying explosives (except Division 1.4S explosives), and we are adding in its place stowage code 78, which requires the materials to be stowed "separated longitudinally by an intervening complete compartment or hold from" explosives.

UN1131	Carbon disulfide.
UN1259	Nickel carbonyl.
UN3392	Organometallic substance, liquid, pyrophoric.
UN3394	Organometallic substance, liquid, pyrophoric, water-reactive.
UN3194	Pyrophoric liquid, inorganic, n.o.s.
UN2845	Pyrophoric liquids, organic, n.o.s.

Section 172.102 Special Provisions

Section 172.102 lists special provisions applicable to the transportation of specific hazardous materials. Special provisions contain packaging requirements, prohibitions, and exceptions applicable to particular quantities or forms of hazardous materials. PHMSA is adopting the following revisions to § 172.102, special provisions.

Special provision 15 is revised by removing redundant regulatory text applicable to "Chemical kits, UN3316" and "First aid kits, UN3316."

Special provision 40 is revised to indicate that "Polyester resin kit, UN3269" requires specification outer packaging based on the PG assigned to the base (Class 3) material unless excepted as a limited or excepted quantity material. This revision is a clarification of the existing requirement.

Special provision 77 is deleted. Special provision 77 allows use of the entry "Compressed gas, n.o.s., UN1956" for mixtures of gases with less than 23.5% oxygen when no other oxidizing gases are present. PHMSA is modifying the definition of oxidizing gas in § 171.8 to state that "a gas which may, by providing oxygen, cause or contribute to the combustion of other material more than air does," meaning, pure gases or gas mixtures with an oxidizing power greater than 23.5% oxygen. Because of the availability of the entry "Compressed gas, oxidizing, n.o.s., UN3156" in the HMT, we believe special provision 77 is no longer necessary.

Special provision 78 is revised to direct shippers to use the entry "Compressed gas, oxidizing, n.o.s., UN3156" to describe compressed air that contains pure gases or gas mixtures with an oxidizing power greater than 23.5% oxygen. PHMSA is modifying the definition of oxidizing gas in § 171.8 of the HMR to indicate that "a gas which may, by providing oxygen, cause or contribute to the combustion of other material more than air does," meaning, pure gases or gas mixtures with an oxidizing power greater than 23.5% oxygen. Therefore, we are revising this special provision to emphasize the revised definition and use of the proper shipping description.

Special provision 110 is revised to include oxygen cylinders for emergency use. Fire extinguishers (UN1044) are assigned special provision 110, which authorizes the installation of a cartridge power device (of Divisions 1.4C and S) on the fire extinguisher without changing its classification from Division 2.2, provided the actuating cartridge does not contain deflagrating (propellant) explosives exceeding 3.2 g. Many of these types of fire extinguishers are used in commercial aircraft applications where the actuating cartridge is necessary for remote activation to discharge the fire suppressant contained in the cylinder. Similarly, commercial aircraft are being designed to incorporate small oxygen cylinders in the overhead panels above passenger seats to provide emergency oxygen in the event of a depressurization. The design of the system is that a small actuating cartridge attached to each cylinder will be initiated once the passenger starts breathing into the mask, which will allow the flow of oxygen from these cylinders. In connection with the manufacturing and maintenance of the aircraft, it is necessary for these small cylinders to be transported with the actuator installed. The principal hazard presented by these oxygen cylinders remains that of Division 2.2, and not the Division 1.4 explosive hazard of the actuating cartridge. Therefore, in this final rule PHMSA is authorizing the transport of oxygen cylinders for emergency use with an installed actuating cartridge without changing the classification of Division 2.2 provided that the total quantity of deflagrating (propellant) explosives does not exceed 3.2 g per oxygen cylinder, and further provided that the cylinders have an effective means of preventing inadvertent activation.

Special provision 130 is revised in conformance with adoption of new special provision 340 and new § 172.101 HMT entry, "Batteries, nickel-metal hydride, UN3496," applicable to nickel-metal hydride batteries transported by vessel. Two commenters (PRBA, Saft) requested a revision to clarify the appropriate use of this special provision for the transport of nickel-metal hydride batteries. We agree that special provision 130 should be clarified to avoid confusion over appropriate use of entries applying to nickel-metal hydride batteries. Because these batteries are dry batteries, they are subject to conditions in special provision 130, which outlines that the provision applies to dry batteries when not specifically covered by another entry in the HMT. Because there is now another entry for nickel-metal hydride batteries that is modal specific, there is potential for confusion. We are therefore adding language to special provision 130 clarifying that, except for nickel-hydride batteries shipped under conditions specified in special provision 340 for vessel transportation, nickel-metal hydride batteries are covered by the entry "Batteries, dry, sealed, n.o.s."

In addition, one commenter (PRBA) suggested that we codify guidance offered in several recently issued letters of interpretation (*e.g.,* Ref. No. 09–0194) indicating our determination that spent or used dry batteries of not more than 9 volts are not likely to generate a dangerous quantity of heat, short circuit, or create sparks during the normal course of transportation and thus, are not subject to the HMR when transported for purposes of recycling, reconditioning, or disposal. We agree. Therefore, in this final rule we are revising special provision 130 by adding a conditional exception for the ground transportation of spent or used dry batteries.

For conformance with the addition of new proper shipping names for UN3166, special provision 134 is revised to specify that a battery-powered vehicle or equipment that also contains an internal combustion engine must be consigned under the entry "Engine, internal combustion, flammable gas powered" or "Engine, internal combustion, flammable liquid powered" or "Vehicle, flammable gas powered" or "Vehicle, flammable liquid powered," as appropriate. These entries include hybrid electric vehicles powered by both an internal combustion engine and batteries. Furthermore, a battery-powered vehicle or equipment that contains a fuel cell-powered engine must be consigned under the entry "Engine, fuel cell, flammable gas powered" or "Engine, fuel cell, flammable liquid powered" or "Vehicle, fuel cell, flammable gas powered" or "Vehicle, fuel cell, flammable liquid powered," as appropriate. These entries include hybrid electric vehicles powered by a fuel cell, an internal combustion engine, and batteries.

Special provision 135 is revised to specify that an internal combustion engine installed in a vehicle must be consigned to the entry "Vehicle, flammable gas powered" or "Vehicle, flammable liquid powered," as appropriate. These entries include hybrid electric vehicles powered by both an internal combustion engine and installed wet, sodium or lithium batteries. If a fuel cell-powered engine is installed in a vehicle, the vehicle must be consigned using the entry "Vehicle, fuel cell, flammable gas powered" or "Vehicle, fuel cell, flammable liquid powered," as appropriate. These entries include hybrid electric vehicles powered by a fuel cell, an internal combustion engine, and batteries.

Special provision 149 is revised to indicate the exception provided may not

be used for transportation by aircraft. This special provision authorizes an increased amount of certain Class 3 (flammable liquid) materials in PG II that are also consumer commodities. We received one comment, from Safety Specialists, Inc. (SSI), opposing the elimination of air eligibility for use of the exception provided in the special provision. SSI asserts that because the materials currently authorized to use the packaging exception provided by special provision 149 are not "extremely" hazardous materials, they should continue to be authorized in air transportation in far greater quantities per inner packaging than are limited quantities packaged under the ICAO Technical Instructions. We disagree. Standardization in today's safety culture enhances safety, lowers training costs and facilitates commerce through greater productivity. PHMSA has made concessions in this final rule, such as lifting the § 175.75 cargo compartment loading restriction on packages of limited quantity materials, to offset per inner and outer packaging limitations adopted through harmonization with the ICAO Technical Instructions. We will also vigorously advocate for change at the international level when warranted.

Special provision 157 is deleted because the language of this provision has been combined with the language of revised special provision 135. Special provision 157 was assigned to the entries "Vehicle, flammable gas powered" and "Vehicle, flammable liquid powered" and instructed shippers that these entries include hybrid electric vehicles powered by both internal combustion engines and installed wet, sodium or lithium batteries. This language is now in special provision 135.

Special provision 167 is revised to require a metal hydride storage system installed in conveyances, to be approved by the Associate Administrator before acceptance for transport. Special provision 167 is also applicable, where appropriate, to UN3166 entries powered by fuel cells.

Special provision 198 is revised to include "Perfumery products, UN1266" among the list of products that nitrocellulose solutions containing not more than 20% nitrocellulose can be transported as. PHMSA is also revising this provision to clarify that the nitrocellulose may not contain more that 12.6% nitrogen by dry mass.

A new special provision 340 is added to provide special instruction for the vessel transport of nickel-metal hydride batteries (including cells). Except for nickel-metal hydride button cells or nickel-metal hydride cells or batteries packed with or contained in equipment, when nickel-metal hydride batteries are loaded in a vessel cargo transport unit in a total quantity of 100 kg gross mass or more, shipment of the nickel-metal hydride batteries is subject to the shipping paper, dangerous cargo manifest requirements under § 176.30, and stowage conditions assigned to the "Batteries, nickel-metal hydride, UN3496" entry in the § 172.101 HMT. Additionally, the nickel-metal hydride batteries are required to be securely packed and protected against a dangerous evolution of heat, short circuits and damage to terminals.

A new special provision 342 is added to be consistent with the adoption of the same provisions in the UN Model Regulations and the IMDG Code as well as amendments made to special provision A131 in the ICAO Technical Instructions. The special provision allows sterilization devices containing ethylene oxide conforming to the conditions in the special provision and packaged in accordance with § 173.4a of the HMR to be offered for transportation and transported by all modes even though Column (9A) of the § 172.101 HMT lists the material as forbidden by passenger aircraft. The addition of this special provision coincides with the deletion of special provision A59 which restricted the applicability of the special provision to air transport. *See* Special provision A59 for additional discussion of this amendment.

A new special provision 343 is added and assigned to the new HMT entry "Petroleum sour crude oil, flammable, toxic, UN3494," indicating that for international transportation, this entry in the HMT must be used for petroleum crude oil containing hydrogen sulfide in sufficient concentration that vapors evolved from the crude oil can present an inhalation hazard. However, any bulk packaging used for the domestic transport of petroleum crude oil would be required to be marked in accordance with the new markings prescribed in § 172.327 of the HMR to provide warning of the potential hazard from inhalation of hydrogen sulfide vapors.

A new special provision 345 is added excepting from the requirements of the HMR "Nitrogen, refrigerated liquid *cryogenic liquid,* UN1977" transported in open cryogenic receptacles with a maximum capacity of 1 L. The receptacles must be constructed with glass double walls having the space between the walls vacuum insulated and each receptacle must be transported in an outer packaging with sufficient cushioning and absorbent materials to protect the receptacle from damage.

A new special provision 346 is added excepting from the requirements of the HMR "Nitrogen, refrigerated liquid *cryogenic liquid,* UN1977" transported in accordance with the requirements for open cryogenic receptacles in § 173.320 of the HMR. The receptacle must contain no hazardous materials other than the liquid nitrogen which must be fully absorbed in a porous material in the receptacle.

A new special provision 347 is added restricting the use of certain HMT entries classed as Division 1.4S explosive materials to those articles successfully passing Test series 6(d) of Part I of the UN Manual of Tests and Criteria. *See* Section 172.101 Hazardous Materials Table (HMT) for the list of proper shipping names that are assigned special provision 347. A Division 1.4 explosive is defined as an explosive that presents a minor explosion hazard such that hazardous effects are confined to a package and no projection of fragments of appreciable size or range are expected; and that an external fire must not cause virtually instantaneous explosion of almost the entire contents of a package containing a Division 1.4 explosive. Under § 173.58 of the HMR, an explosive article or substance is subjected to Test Series 6(a), 6(b), and 6(c) for assignment to an appropriate division (*e.g.* Division 1.4). Explosive articles or substances are assigned to Division 1.4, Compatibility Group S (1.4S) if hazardous effects are confined within a package or the blast and projection effects do not significantly hinder emergency response efforts. Test Series 6(a), 6(b), and 6(c) address hazard effects from exposure of the package to a fire but do not address whether hazardous effects from functioning of the articles or substances is confined within the package. PHMSA is concerned that there is a possibility that products classified as Division 1.4S based on behavior in a fire according to test procedures of Type 6(c) may still produce a hazardous effect that, when initiated, is not confined to a package. Initiation or ignition as a result of fire, after the package is degraded, may produce different results from functioning with the intended means of ignition or initiation. Knowledge of the behavior of the article or substance in both cases is needed to allow proper classification.

As discussed in the comment summary in response to the NPRM, PHMSA is requiring the Type 6(d) test as prescribed in Section 16.7 of the fifth revised edition of the UN Manual of Tests and Criteria in the new special provision 347. For affected articles intended for transportation by aircraft,

the compliance date of this new requirement is July 1, 2011. If a manufacturer or approval holder of affected articles previously classed and approved as Division 1.4S chooses to continue offering such shipments as Division 1.4S material by aircraft, the articles must be successfully tested under Test Series 6(d) and a new approval obtained from PHMSA. Additionally, a previously classed and approved Division 1.4S article that is not successfully tested under Test Series 6(d) must be assigned to a compatibility group other than S (*e.g.,* B, C, or D) prior to being transported by aircraft. Based on knowledge that an article or substance will not pass the Type 6(d) test, a manufacturer or approval holder may choose to have a previously approved Division 1.4S explosive reassigned to a different compatibility group based on existing data and recommendation by a PHMSA-approved explosives testing and examination facility in lieu of conducting the Type 6(d) test. For new Division 1.4S articles approved prior to January 1, 2012 intended for domestic highway or rail transportation only, the compliance date for testing to maintain Division 1.4S classification or reassignment to a higher compatibility group other than S is January 1, 2014. For international highway, rail and vessel transportation and domestic vessel transportation, the compliance date for Type 6(d) testing or reassignment for new and previously produced affected articles is January 1, 2012.

A new special provision 349 is added and assigned to "Hypochlorites, inorganic, n.o.s., UN3212" to specify that transport of mixtures of hypochlorite and an ammonium salt is forbidden.

A new special provision 350 is added and assigned to "Bromates, inorganic, n.o.s., UN1450" and "Bromates, inorganic, aqueous solution, n.o.s., UN3213" to specify that transport of ammonium bromate and its aqueous solutions and mixtures of a bromate and an ammonium salt is forbidden.

A new special provision 351 is added and assigned to "Chlorates, inorganic, n.o.s., UN1461" and "Chlorates, inorganic, aqueous solution, n.o.s., UN3210" to specify that transport of ammonium chlorate and its aqueous solutions and mixtures of a chlorate and an ammonium salt is forbidden.

A new special provision 352 is added and assigned to "Chlorites, inorganic, n.o.s., UN1462" to specify that transport of ammonium chlorite and its aqueous solutions and mixtures of a chlorite and an ammonium salt is forbidden.

A new special provision 353 is added and assigned to "Permanganates, inorganic, n.o.s., UN1482" and "Permanganates, inorganic, aqueous solution, n.o.s., UN3214" to specify that transport of ammonium permanganate and its aqueous solutions and mixtures of a permanganate and an ammonium salt is forbidden.

A new special provision 357 is added and assigned to the entry "Petroleum crude oil, UN1267" to clarify that when transported internationally, petroleum crude oil containing hydrogen sulfide in sufficient concentration that vapors evolved from the crude oil can present an inhalation hazard must be transported under the entry "Petroleum sour crude oil, flammable, toxic, UN3494." As discussed in detail in response to comments submitted to the ANPRM, for domestic transportation, use of the toxic description is not required; however, a bulk package is required to be marked in accordance with the requirement of new § 172.327 of the HMR. *See* Section 173.327 for a discussion of the marking requirement.

In the August 2010 NPRM, PHMSA proposed to revise special provision A59 for consistency with amendments made to special provision A131 of the 2011–2012 ICAO Technical Instructions. Special provision A59 allows sterilization devices containing ethylene oxide to be offered for transportation and transported by air under the excepted quantity provisions of § 173.4a of the HMR. One commenter (Andersen) supported the amendments to A59 but noted that the special provision originally appearing in the ICAO Technical Instructions (as special provision A131) applicable to air transport has been adopted in the UN Model Regulations as special provision 342 for use by other modes of transport. Additionally, special provision 342 is also to be incorporated into the IMDG Code. The commenter questioned the appropriateness of adopting an "A" prefix special provision which limits the special provision, to air transport only. Andersen stated:

> In the preamble to the [NPRM], on page 53085, PHMSA observes that "Special provision A59 allows for sterilization devices containing ethylene oxide to be offered for transportation and transported by air (*and thereby all modes*) under the excepted quantity provisions of § 173.4a" (emphasis added) * * * notwithstanding PHMSA's statement in regard to the multi-modal applicability of this special provision, it is not at all clear from the wording of § 172.102(c)(2) [A59] * * * that this special provision extends to all modes of transport.

The commenter suggested that, in order to achieve complete harmonization and for greater clarity of the applicability of the special provision, PHMSA revise the applicability of the special provision to all modes and not restrict the special provision to air transport through the use of the "A" prefix as currently implemented.

We agree. Therefore, in this final rule we are deleting Special provision A59 and adopting new Special provision 342 which applies conditions for transportation of sterilization devices containing ethylene oxide to all modes of transportation.

A new Special provision A112 is added authorizing the transportation of certain IBCs by passenger and cargo-only aircraft that contain up to a maximum net quantity of 1,000 kg of an "Environmentally hazardous substance, solid, n.o.s. UN3077." This amendment is consistent with the authorization in the 2011–2012 ICAO Technical Instructions.

In paragraph (c)(4), the Table 1 (IBC Codes) are editorially revised to remove UN Specifications 31A, 31B and 31N from IBC Codes IB4, IB5, IB6, IB7, and IB8. This revision is consistent with amendments to international standards and removes the specifications from the indicated codes in the table because IBC Codes IB4 through IB8 are assigned to solids, whereas, UN Specifications 31A, 31B, and 31N are authorized for transportation of liquids in IBC Codes IB1 through IB3 which are assigned to liquid materials only.

Paragraph (c)(7) outlines provisions that apply to the transportation of hazardous materials in UN portable tanks. Two commenters (DGAC, PSA) requested that PHMSA revise § 172.102(c)(7) to allow shipment of solid materials in certain portable tanks using bottom outlets. PSA stated:

> At the recommendation of the United States, new provisions governing the use of bottom outlets on portable tanks were adopted in the [UN] Model Regulations * * * However, the United States does not follow its own recommendation in the Proposed Rule * * * To date * * * the HMRs flatly prohibit the use of bottom outlets for solids referenced in the American proposal to the U.N. In the Table of Portable Tank T Codes T1–22, which appears in 49 C.F.R. § 172.102(c)(7), instructions T9 and T21 indicate "prohibited" in the column designated "bottom outlet requirements." The text of § 172.101(c)(7)(ii) explains that the word "prohibited" in that column of the Table "means bottom openings are prohibited." In the Proposed Rule, and without explanation, the agency did not propose to adopt its own bottom outlet provision.

In the interest of harmonization with specific regard to the January 1, 2011

effective date for international regulations, the commenters urged PHMSA to adopt the provisions we successfully persuaded international organizations to adopt.

We agree. In the paper submitted to the UN Sub-Committee of Experts (UNSCOE) on the Transport of Dangerous Goods (*see* UN document ST/SG/AC.10/C.3/2007/24 available at *http://www.unece.org/trans/main/dgdb/dgsubc/c32007.html*), the U.S. successfully persuaded UNSCOE to adopt provisions authorizing the use of bottom outlets on portable tanks used to transport PG I solid material on the basis that (1) transport of these materials in portable tanks without bottom openings is impractical and it is virtually impossible to unload the material from the portable tank through top openings; and (2) there is no compelling safety reason to prohibit bottom openings in portable tanks suitable for such material when the authorized portable tanks afford a level of safety in transport substantially greater than that afforded by other packagings authorized for the material (*e.g.,* UN1A2 removable head steel drums). Although PHMSA did not propose this amendment in the August 2010 NPRM, based on comments received and the relief provided to industry by authorizing an alternative method of unloading PG I solid material without a reduction in packaging safety, in this final rule we are revising § 172.101(c)(7) by revising T Codes T9 and T21 to prohibit bottom openings for liquid only and specify applicable requirements for the bottom openings. The revision includes adding clarifying language to § 172.101(c)(7)(ii) to specify the meaning of "prohibited" for liquids in the appropriate context. With regard to PSA's suggested revised regulatory text, we do not believe it is necessary to add language specifying that the bottom outlets must conform to 6.7.2.6.2 of the UN Model Regulations (bottom opening requirements for portable tanks used for solid material) because these provisions are dealt with under § 178.275(d)(2), which we are referencing in the revised entries for portable tank T Codes T9 and T22.

A new portable tank special provision TP36 is added authorizing the use of fusible elements in the vapor space of portable tanks with a gauge test pressure that exceeds 265 kPa (38.4 psig/2.65 bar). *See* Section 178.275 for a detailed discussion. *See* Section 172.101 Hazardous Materials Table for a listing of materials assigned this special provision.

A new special provision W1 is added indicating that the hazardous materials "Potassium nitrate, UN1486," "Sodium nitrate, UN1498," and "Sodium nitrate and Potassium nitrate mixtures, UN1499" are not subject to the HMR when transported by vessel in non-friable prills or granules form. The material must be accompanied by a certificate from an accredited laboratory stating that the product has been properly sampled and tested by the laboratory according to the UN Manual of Tests and Criteria.

Section 172.200

Section 172.200 prescribes the applicability of shipping paper requirements for the transportation of hazardous materials. Paragraph (b)(3) is revised to remove the exceptions for ORM–D material in conformance with the changes made to the limited quantities requirements under this final rule.

Section 172.203

Section 172.203 specifies additional hazardous materials description requirements on shipping papers. Paragraph (b) is revised to indicate that when a shipping paper is required, a limited quantity must be indicated as such. This revision is necessary due to the shipping paper exception adopted in this final rule for limited quantities intended for transportation by highway or rail.

Section 172.300

Section 172.300 prescribes the applicability of the HMR marking requirements incorporated in subpart D of Part 172. Paragraph (l)(1)(ii) of § 172.101 authorizes up to a one-year transition period for continued use of stock of pre-printed packaging marked with proper shipping names revised in the HMT under a rulemaking. Consistent with the transition period authorized in § 172.101(l)(1)(ii), in this final rule we are amending § 172.300 of the HMR to authorize the continued use of stock of preprinted packaging for one year from the date of compliance or until depleted (whichever is less) for a revision to a required marking. This amendment allows the continued use of preprinted packaging stock that is marked in accordance with the manner previously authorized.

Section 172.301

Section 172.301 prescribes general marking requirements for non-bulk packagings. In this final rule, PHMSA is amending paragraph (a) to clarify that a proper shipping name and identification number is not required to be marked on package containing only limited quantity material marked in accordance with § 172.315(a). Additionally, it is amended by adding that until January 1, 2014 (January 1, 2013 if intended for transportation by aircraft), an identification number is not required to be marked on package containing only a Consumer commodity, ORM–D or ORM–D–AIR material, as defined in § 171.8 of this subchapter in effect on October 1, 2010, provided the package is marked in accordance with § 172.316.

Section 172.312

Section 172.312 prescribes the required orientation markings for non-bulk packages containing liquids. PHMSA is amending paragraph (c)(5) to clarify that the exception applies only to a hermetically sealed inner packaging or receptacle not exceeding 500 mL each.

Section 172.315

Section 172.315 specifies the markings required on a package containing limited quantities of hazardous materials. These new markings are consistent with the UN Model Regulations, ICAO TI and IMDG Code and are required on packages of limited quantities offered for transportation by highway, rail, air and vessel. Additionally, PHMSA received positive comments submitted in response to the ANPRM concerning the new marking because the requirement specifies minimum dimensions on each side (100 mm) that substantially increases the visibility of the marking when compared with the current ORM–D marking prescribed in § 172.316 of the HMR. Commenters stated that increased visibility of the mark will enhance safety while reducing regulatory burden.

For limited quantities intended for transportation by vessel, this new marking with minimum dimensions of 250 mm on each side is required on cargo transport units containing limited quantities and no other hazardous materials. For limited quantities intended for transportation by aircraft, the marking requirements are consistent with the 2011–2012 ICAO TI (*i.e.,* "Y" mark on a white square on point) in addition to any required labels.

Section 172.316

Section 172.316 prescribes marking requirements for packages containing materials classed as ORM–D and ORM–D–AIR. The marking prescribed in this section will no longer be authorized for limited quantities effective January 1, 2014.

Section 172.322

Section 172.322 prescribes marking requirements for packages containing marine pollutants. PHMSA is adding an

exception from the marking requirement in new paragraph (d)(4) for packages of limited quantities marked in accordance with § 172.315.

Section 172.324

Section 172.324 prescribes marking requirements for packages containing hazardous substances in non-bulk packagings. PHMSA is revising paragraph (b) for packages containing hazardous substances marked in accordance with the limited quantity marking prescribed in § 172.315.

Section 172.326

Section 172.326 prescribes the marking requirements for portable tanks. In this final rule, we are revising paragraph (a) to align with the IMDG Code the minimum height for a proper shipping name marked on a portable tank to 65 mm when offered for transportation and transported by vessel. This amendment is in response to a revision made in Amendment 35–10 of the IMDG Code.

One commenter (Arkema) requests that we allow a one year transition period from the publication of the final rule to allow for depletion of label inventory and/or restenciling of portable tanks. We agree that there should be a transition period and note that, in this final rule, we are implementing a delayed compliance date of January 1, 2012, which is one year from the effective date of the rule, unless otherwise specified in provisions adopted or revised in this final rule.

Section 172.327

New section 172.327 specifies the marking required for a bulk packaging containing petroleum crude oil to warn of the potential toxic inhalation hazard from vapors evolved from hydrogen sulfide present in the crude oil. PHMSA proposed to require placement of the marking used for toxic materials under the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) in the immediate vicinity of any location on a bulk packaging that could pose a health risk to transportation workers if exposed to hydrogen sulfide vapors emitted from that location, such as loading heads and manholes. This proposed hazard communication marking requirement is applicable to bulk packagings in domestic transportation only. The new hazardous materials description for "Petroleum sour crude oil, flammable, toxic, UN3494" added to the HMT must be used for international transportation of petroleum crude oil with hydrogen sulfide in sufficient concentration that vapors evolved from the crude oil present an inhalation hazard (for both bulk and non-bulk packagings).

One commenter (AAR) expressed concern that this new marking requirement would place an undue burden on rail carriers with regard to inspection requirements under § 174.9 of the HMR. The commenter had concerns regarding the safety of rail carrier employees having to climb tank cars to determine whether markings are present or correct. AAR stated:

> [We] we would not oppose the proposed marking if it were made clear that railroads have no obligation to inspect for markings. Accordingly, [we suggest] amending [§ 173.127 to indicate] carrier personnel are not required to inspect for markings that would not be visible or legible from the ground.

We agree, although we do not believe a regulatory revision is warranted. Section 174.9 requires a rail carrier to inspect each rail car containing a hazardous material, at ground level, for required markings, labels, and placards, *etc.* This requirement already limits the inspection to ground level and predisposes the carrier from having to climb onto a rail car to inspect for hazard communications. As indicated in the comments by AAR, the intent of this marking is to alert hazmat employees who may be exposed to hydrogen sulfide vapors during a loading or unloading operation to a potential hazard and not to communicate the hazard for emergency response purposes. Thus, carriers will not be obligated to inspect for markings placed in the vicinity of tank car openings on a rail car that are not readily visible or legible from ground level.

Based on comments received, we are revising our proposed requirements to authorize an alternative marking to the GHS toxic material pictogram. *See* the Sections II.C and III.A.7 discussion of the classification of petroleum sour crude oil.

Section 172.500

Section 172.500 specifies the applicability of placarding requirements to certain materials. PHMSA is amending paragraph (b)(3) to clarify that limited quantities marked in accordance with revised § 172.315 of the HMR are not subject to placarding requirements.

Section 172.502

Section 172.502 specifies prohibited and permissive placarding requirements. In this final rule, PHMSA is revising the exceptions provided in paragraph (b)(2) to include the petroleum sour crude oil marking and the limited quantity marking in §§ 172.315 and 172.327 of the HMR, respectively.

Part 173

Section 173.4

Section 173.4 prescribes the requirements for small quantities of hazardous materials offered for transportation and transported by domestic highway or rail. PHMSA is revising paragraph (a) and adding new paragraph (a)(1)(v) to allow Division 2.2 (non-flammable, non-poisonous, compressed gas) material without a subsidiary hazard (except for aerosols) without applying for an approval from the Associate Administrator as prescribed under paragraph (c) of this section. Other Class 2 materials, including Division 2.2 aerosols, will still require approval under § 173.4(c) of the HMR. These amendments are consistent with the authorization under § 173.4a(b)(1) for Division 2.2 gases without a subsidiary hazard in addition to the new restriction to exclude aerosols from authorized materials in § 173.4a of the HMR. *See* Section 173.4a for a discussion of revisions for excepted quantities of hazardous materials.

Section 173.4a

Section 173.4a prescribes the requirements for excepted quantities of hazardous materials offered for transportation and transported by all modes, domestic or international. PHMSA is amending paragraph (a) by adding a new paragraph (a)(4) regarding pressure differential capability for packages intended for transportation by aircraft in accordance with § 173.27(c) of the HMR. PHMSA is also amending paragraph (b)(1) to clarify that the authorization for Division 2.2 (non-flammable, non-poisonous, compressed gas) excludes aerosols as an excepted quantity material. Such articles are authorized as a limited quantity under both domestic and international standards. Additionally, PHMSA is revising paragraph (b)(5) to add polyester resin kits to the types of Division 5.2 (organic peroxide) material authorized as an excepted quantity and is revising paragraph (d)(3) by correcting the outer packaging aggregate quantity limit for Division 5.2 liquids from 250 mL to 500 mL. Lastly, PHMSA is adding a new paragraph (g)(3) that requires when packages of excepted quantities (*see* the Section 173.25 discussion) are contained in an overpack, and the package markings required by this section are not visible inside the overpack, the excepted quantities marking must also be placed on the

overpack. Additionally, an overpack containing packages of excepted quantities is not required to be marked with the word "OVERPACK."

Section 173.4b

Section 173.4b prescribes the requirements for *de minimis* quantities of hazardous materials offered for transportation and transported by all modes, domestic or international. Consistent with the international standards, PHMSA is adding a new paragraph (b) to except non-infectious specimens (*e.g.,* museum specimens) preserved with small amounts of certain Class 3 (flammable liquid) materials for scientific purposes from the requirements of the HMR. This amendment is consistent with previous interpretations we have issued on this matter indicating these specimens do not pose a risk to safety during the course of transportations.

One commenter (AVMA) expressed support for the adoption of this exception as essential to the conduct of professional work of veterinarians. Therefore, in this final rule, we are adopting the exception from full regulation under the HMR for non-infectious specimens preserved with small amounts of certain Class 3 (flammable liquid) material for scientific purposes.

Section 173.25

Section 173.25 prescribes the requirements for certain authorized packagings and overpacks. Consistent with the international standards, PHMSA is requiring an overpack containing packages of limited quantity material marked with the new limited quantities marking required by this final rule (*see* the Section 172.315 discussion) to be marked with the word "OVERPACK" if the markings are not visible, in addition to all other required package markings. This mark is an indication that the packages contained within the overpack are in accordance with the HMR. Additionally, for excepted quantities (*see* the Section 173.4a discussion) where the required package markings are not visible inside an overpack, the excepted quantities marking must also be placed on the overpack. An overpack containing packages of excepted quantities is not required to be marked with the word "OVERPACK."

Section 173.27

Section 173.27 prescribes the general requirements for packaging offered or intended for air transportation. In this final rule, PHMSA is amending paragraph (f) by adding a new Table 3 that outlines the requirements for limited quantities intended for air transportation consistent with the 2011–2012 ICAO Technical Instructions, where appropriate. *See* the limited quantity, consumer commodity and ICAO Technical Instructions alignment NPRM comment discussion in Section III.A.5 of this rule.

Section 173.40

Section 173.40 specifies the general packaging requirements for toxic materials packaged in cylinders. PHMSA is amending paragraph (c)(1) concerning closure requirements by requiring the valve connections on UN Specification cylinders to be made by a taper thread or some other means in accordance with ISO Standard 10692–2:2001.

Section 173.58

Section 173.58 outlines the assignment of class and division for new explosives. Based on a recommendation from comments provided by IME, we are revising paragraph (a)(5) to include a reference to the Type 6(d) test for determination of Division 1.4S classification for consistency with the adoption of the new test.

Section 173.59

Section 173.59 provides definitions of explosive terms that are intended for information only. The UN Committee of Experts (COE) recently defined the term "phlegmatized" to meaning the addition of a substance to an explosive to enhance its safety in handling and transport. One commenter indicated support for adoption of the proposed definition of "phlegmatized," therefore, in this final rule PHMSA is adopting the definition in the HMR as proposed.

Section 173.63

Section 173.63 specifies packaging exceptions for limited quantities of certain Division 1.4S explosive articles authorized for reclassification and transport as ORM–D material. Prior to offering for transportation by aircraft, "Cartridges, power devices, ORM–D–AIR" (UN0323), must have been successfully tested in accordance with the new UN Test Series Type 6(d) test beginning July 1, 2011. *See* the Section 172.102, Special Provision 347 discussion. This requirement is a condition for the continuation of a Division 1.4S classification and for reclassification to ORM–D for limited quantities of such articles intended for transportation by international highway, rail and vessel and domestic vessel effective January 1, 2012. Limited quantities of such articles approved as Division 1.4S prior to January 1, 2012, may continue to be reclassed as ORM–D and offered for domestic highway and rail transportation only until January 1, 2014.

Section 173.120

Section 173.120 defines Class 3 (flammable liquid) material. PHMSA is revising paragraph (c) to add new testing methods for determining the flash point of a liquid. *See* Section 171.7 for a listing of materials incorporated by reference pertaining to § 173.120.

Section 173.121

Section 173.121 prescribes the packing group assignment for flammable liquids. The HMR do not specify a test method for determining the boiling point of a liquid which may be necessary for liquids with very low flash points. PHMSA is revising paragraph (a) to add new testing methods for determining the boiling point of a liquid. *See* Section 171.7 for a listing of materials incorporated by reference pertaining to § 173.121.

Section 173.124

Section 173.124 defines Class 4 material. For consistency with a revision adopted in the UN Model Regulations, PHMSA is amending the definition of "self-heating" in § 173.124(b)(2) of the HMR to read: "Self-heating of a substance is a process where the gradual reaction of that substance with oxygen (in air) generates heat. If the rate of heat production exceeds the rate of heat loss, then the temperature of the substance will rise which, after an induction time, may lead to self-ignition and combustion."

Section 173.137

Section 173.137 establishes test criteria and packing group assignments for Class 8 (corrosive) material. Since 1993, PHMSA has authorized under the terms of a special permit (*i.e.,* DOT–SP 10904) an *in vitro* test method (available commercially as Corrositex®) as an alternative form of testing to that specified in the HMR, which is based on live animal test results, to determine the corrosivity of certain materials. Materials authorized for analysis using the alternative test method include acids (and their derivatives), acyl halides, alkylamines and polyalkylamines, bases, chlorosilanes, metal halides, and oxyhalides.

The UN COE recently recognized and adopted *in vitro* test methods in the UN Model Regulations as an alternative form of testing to that specified in OECD Guideline for Testing of Chemicals, Number 404, "Acute Dermal Irritation/

Corrosion." The following alternative *in vitro* test methods include OECD Guidelines for the Testing of Chemicals:

- No. 430, "*In Vitro* Skin Corrosion: Transcutaneous Electrical Resistance Test (TER)" (2004);
- No. 431, "*In Vitro* Skin Corrosion: Human Skin Model Test" (2004); and
- No. 435, "*In Vitro* Membrane Barrier Test Method for Skin Corrosion" (2006).

A positive test result under *in vitro* methods 430 and 431 may be used to determine corrosivity for transportation purposes but cannot be used to determine the PG assignment. A negative result for corrosivity under *in vitro* methods 430 and 431 can preclude further testing to determine PG assignment using method 404, the current OECD Guideline involving *in vivo* testing, or method 435, the newly adopted OECD Guideline involving *in vitro* testing.

Based on the adoption of three new OECD guidelines for the *in vitro* testing of materials for corrosivity in the UN Model Regulations and through encouragement from PETA to adopt these new test methods in a petition for rulemaking (P–1550), we proposed to adopt such guidelines as matter incorporated by reference (IBR) in §§ 171.7 and 173.137 of the HMR.

In response to our proposal to incorporate several *in vitro* test methods for determination of corrosivity, PHMSA has received over 900 comments supporting the proposal, including a comment from PETA. We received no opposition. Therefore, we are adopting the OECD Guideline Test Nos. 430, 431, and 435, and revising Test No. 404 as proposed. Further, PETA urged PHMSA to facilitate access to DOT–SP 10904 through our Web site until such a time that this final rule becomes effective, and requested that PHMSA remove letters of interpretation that they believe recommend the use of *in vivo* testing even though alternative *in vitro* testing is available.

With regard to PETA's additional requests, they are beyond the scope of this rulemaking. However, we note that in prior correspondence with PETA, PHMSA has indicated that information about DOT–SP 10904 can be obtained by entering "Corrositex" in the search feature of the PHMSA Office of Hazmat Safety Web site. Also, the special permit may be accessed by entering "10904" in the search feature on our special permits Web site or by conducting a group number search.

We agree with PETA that non-live animal testing should be used where available and encourage shippers to use the *in vitro* test methods to determine the classification of a material as corrosive and assignment of a packing group. We also remind shippers that historical data may also be used to classify a material in accordance with § 173.136(c). Thus, in this final rule we are revising § 173.136(a) to codify the authorization to use *in vitro* test methods and to highlight the availability of classifying a material based on historical data.

Sections 173.150, 173.151, 173.152, 173.153, 173.154 and 173.155

Sections 173.150 through 173.155 prescribe the exceptions for certain Class 3, 8 and 9 and Division 4.1, 4.2, 4.3, 5.1, 5.2, 6.1 hazardous materials under the HMR. In this final rule, PHMSA is revising each of these sections to recognize the UN Model Regulations and IMDG Code package quantity limits for the highway, rail, and vessel transportation of limited quantities. No limited quantity limits decrease and two increase slightly to maintain alignment with the international standards for transport by other than aircraft. Additionally, the packaging provisions for "Polyester resin kits" are removed from § 173.152, as proposed, and placed in new § 173.165 for clarity.

When PHMSA lowered the quantity limits for Division 6.1 (poisonous) materials of PG II (primary or subsidiary) authorized as a limited quantity in a final rule published under Docket HM–215G (70 FR 34065, June 13, 2005), it did not authorize the labeling exception for such packages when intended for transportation by highway, rail and vessel, nor did it authorize renaming and reclassification as "Consumer commodity, ORM–D" for such materials. In this final rule, except for transportation by aircraft, we are authorizing the labeling exception for packages of limited quantity material with a Division 6.1, PG II primary or subsidiary hazard and, until December 31, 2013, we are authorizing renaming and reclassification as "Consumer commodity, ORM–D". Additionally, until December 31, 2012, a consumer commodity as defined in § 171.8 in effect on October 1, 2010 may continue to be packaged, reclassed and marked "ORM–D–AIR" either in accordance with the new Table 3 of § 173.27(f) or §§ 173.150 through 173.155 and 173.306, as applicable. PHMSA fully believes this eventual alignment with international standards will improve clarity, promote regulatory compliance, reduce employee training costs and enhance safety overall.

Section 173.161

Section 173.161 prescribes packaging requirements for chemical kits and first aid kits containing small amounts of hazardous materials. In this final rule, PHMSA is editorially revising the section. In addition, PHMSA is authorizing transport of dry ice in accordance with § 173.217 in packaging authorized under this section when used as a refrigerant for the contents of a kit.

Section 173.165

A new section 173.165 is added to prescribe packaging and other requirements for "Polyester resin kits, UN3269" formerly contained in § 172.102, special provision 40 and § 173.152(b)(4) of the HMR. This amendment is intended to provide clarification of existing requirements while also harmonizing the HMR with international standards.

Section 173.167

A new section 173.167 is added to indicate authorized materials and quantity limits for articles and substances that may be described as "ID8000, Consumer commodity," when intended for transportation by all modes of transport provided all or some of the transportation is by aircraft. Such articles and substances eligible for classification or reclassification to Class 9 are Class 2 materials (non-toxic aerosols only), Class 3 materials (Packing Group II and III only), Division 6.1 (Packing Group III only), UN/NA3077, UN/NA3082, and UN3175, provided such materials do not have a subsidiary risk and are authorized aboard a passenger-carrying aircraft. Inner and outer packaging quantity limits are based on Packing Instruction Y963 of the 2011–2012 ICAO TI. Specification outer packagings are not required under the conditions prescribed in this section. Additionally, the pressure differential capability of the inner packagings of a combination packaging intended to contain liquids is reduced from 95 kPa to 75 kPa for materials offered for transportation and transported by aircraft under the provisions of this section.

Section 173.220

Section 173.220 provides exceptions from regulation under the HMR for the transport of internal combustion engines, self-propelled vehicles, mechanical equipment containing internal combustion engines, and battery-powered vehicles or equipment. This section is revised to include engines, vehicles, and equipment powered by fuel cells consistent with

similar provisions under international standards.

Section 173.225

Section 173.225 specifies packaging requirements and other provisions for organic peroxides. When the § 172.101 HMT specifies this section, the organic peroxide must be packaged and offered for transportation in accordance with the provisions of this section. Each packaging must also conform to the general requirements of Subpart B of Part 173 and to the applicable requirements of Part 178 of the HMR. Specifically, organic peroxides that require temperature control are subject to § 173.21(f). When an IBC or bulk packaging is authorized and meets the requirements of paragraph (f) or (h) of § 173.225, respectively, lower control temperatures than those specified for non-bulk packaging may be required. An organic peroxide not identified in paragraph (c), (e), or (g) of § 173.225 by technical name, or not assigned to a generic type in accordance with paragraph (b)(3) of this section, must conform to the requirements in paragraph (c) of § 173.128.

The Organic Peroxides Table specifies by technical name those organic peroxides that are authorized for transportation and not subject to the approval provisions of § 173.128. An organic peroxide identified by technical name is authorized for transportation only if it conforms to all applicable provisions of the table. In this final rule, PHMSA is amending the Organic Peroxide Table in § 173.225(c)(8) by adding a new entry and revising current entries. We are revising an entry to the Organic Peroxide IBC Table in paragraph (e) of this section.

The following entries in the Organic Peroxide Table are being revised:

UN3106	Di-(2-tert-butylperoxyisopropyl) benzene(s).
Exempt	Di-(2-tert-butylperoxyisopropyl) benzene(s).
UN3105	2,5-Dimethyl-2, 5-di-(tert-butylperoxy) hexane.

The following entry is added to the Organic Peroxide Table:

UN3103	2,5-Dimethyl-2, 5-di-(tert-butylperoxy) hexane.

One commenter (Arkema) requested that PHMSA provide a packing method exception for domestic transportation of greater than 90% concentrations of this material based on a history of safe transportation. The proposed revision to this entry changed the packing method for this material in concentrations of 90–100% from OP7 to OP5, reducing the maximum quantity per package from 60 L to 30 L per package. Arkema stated:

> [We ship] a 97% solution in 100 pound drums. Since August 2005 we have shipped [approximately] 1,800,000 pounds. We have had only one incident in the 5 year time period. This incident was the result of a pallet nail puncture. We suggest that a note be added to column (8) for domestic shipments [that] OP7 is authorized.

We disagree. The UN Committee of Experts adopted the reclassification of 90–100% concentrations of 2, 5–Dimethyl-2, 5-di-(tert-butylperoxy) hexane, which entails the more conservative packing method OP5, based on a proposal submitted by the German competent authority. Available industry test data from results on this material at concentrations greater than 90% using the E1 Koenen test in the UN Manual of Tests and Criteria varies from 1.5–2.0 mm. Based on differences in industry test results, the German competent authority conducted a number of E1 Koenen tests on various concentrations of 2, 5-Dimethyl-2, 5-di-(tert-butylperoxy) hexane exceeding 90%. Their conclusion was that the limiting diameter is 2.0 mm at concentrations above 90%, and therefore, they proposed a reclassification from an "Organic Peroxide, Type D, liquid, UN3105" to an "Organic Peroxide, Type C, liquid, UN3103" for 90–100% concentrations of 2, 5–Dimethyl-2, 5-di-(tert-butylperoxy) hexane to the UNSCOE (*see* UN working document ST/SG/AC.10/C.3/2008/66 available on the UNSCOE Web site).

We applaud Arkema's safe record of transportation using packing method OP7 for a greater than 90% concentration of material. However, based on data provided by the German competent authority indicating a more conservative classification, in this final rule, we are keeping this entry as proposed. We invite Arkema to submit test results for their 97% solution of 2, 5-Dimethyl-2, 5-di-(tert-butylperoxy) hexane should the results indicate a classification that differs from the entry adopted in this final rule.

The following entry in the Organic Peroxide IBC Table is being revised to authorize a 31H2 freestanding, rigid plastic IBC:

UN3109	Peroxyacetic acid, stabilized, not more than 17%.

Section 173.230

Section 173.230 prescribes the requirements for fuel cells offered for transportation by all modes. In paragraph (g), PHMSA proposed to allow only those fuel cells containing flammable liquids and corrosive materials to be transported as a limited quantity by aircraft. In paragraph (h), PHMSA also proposed prohibiting the reclassification to "Consumer commodity, ORM–D–AIR" for transportation by aircraft. Several commenters (BIC, COSTHA, DGAC, IATA, LSI, Signa, Trulite, USFCC) expressed strong disapproval to not extending the limited quantity provisions to fuel cell cartridges containing either Division 2.1 (flammable) gas or water-reactive solids. They noted that the only difference between authorizing and not authorizing these materials as limited quantities is the required use of UN specification packaging and that PHMSA offers no safety rationale for this exclusion as the fuel cell cartridges themselves are subject to much more stringent construction, testing, and packaging requirements than for similar articles (*e.g.,* aerosols).

We agree. In this final rule, based on comments received, we are authorizing the transportation of flammable gas and water-reactive solid fuel cell cartridges as limited quantities in addition to authorizing their transport as consumer commodities (except for transportation

by aircraft) if all conditions for limited quantity provisions are met.

Section 173.301b

Section 173.301b prescribes general requirements for shipment of UN pressure receptacles. PHMSA is revising paragraph (c)(2)(iii) to indicate that valve protection requirements for metal hydride storage systems are specified in ISO 16111. Additionally, we are revising paragraph (e) regarding the integrity of UN pressure receptacles used for pyrophoric gases or flammable mixtures of gases containing more than 1% pyrophoric compounds in accordance with the sixteenth revised edition of the UN Model Regulations.

Section 173.306

Section 173.306 prescribes the requirements for limited quantities of compressed gases. PHMSA is revising paragraph (h) to clarify that, except for transportation by aircraft, lighter refills in the ORM–D hazard class are eligible for the exceptions in paragraph (i) of this section and in § 173.156. Additionally, PHMSA is revising paragraph (i) of the section to recognize the new marking for limited quantities of such materials and to provide a transitional period for the eventual elimination of the ORM–D hazard class. PHMSA is also editorially revising paragraph (l) for clarity.

Section 173.307

Section 173.307 establishes exceptions for compressed gases. In this final rule, PHMSA is adding certain types of light bulbs to the section provided they are packaged appropriately so that if a bulb ruptures all pieces are contained within the package.

Section 173.311

PHMSA is adding a new § 173.311 to prescribe the packaging requirements for "Metal hydride storage systems, UN3468" used for the transport of hydrogen as proposed. A metal hydride storage system is a single complete hydrogen storage system that includes a receptacle, metal hydride, a pressure relief device, a shut-off valve, service equipment and internal components.

The HMR do not prescribe specific packaging or shipping methods for metal hydride storage systems containing hydrogen. However, PHMSA has issued a number of special permits to allow the use of these systems for transport. The UN Model Regulations, in new Packing Instruction P205, prescribe standards for the construction, qualification, marking and requalification of such systems and are the basis for the new HMR requirements. Some amendments in new § 173.311 include:

- Application to transportable metal hydride storage systems with pressure receptacles not exceeding 150 liters in water capacity and having a maximum developed pressure not exceeding 25 MPa.
- Requirement that transportable metal hydride storage systems be designed, constructed, initially inspected and tested in accordance with ISO standard 16111:2008, "Transportable gas storage devices—Hydrogen absorbed in reversible metal hydride," as authorized under § 178.71(f) (formerly reserved).
- Requirement that steel pressure receptacles or composite pressure receptacles with steel liners be marked in accordance with § 173.301b(f) of the HMR, which specifies that a steel UN pressure receptacle bearing an "H" mark must be used for hydrogen bearing gases or other gases that may cause hydrogen embrittlement.
- Requirement of a requalification interval of no more than five years as specified in § 180.207 of the HMR in accordance with the requalification procedures prescribed in ISO 16111.

Section 173.322

Section 173.322 prescribes various packaging methods for ethyl chloride. In this final rule, PHMSA is adopting the amended provisions from packaging instruction P200 of the UN Model Regulations for ethyl chloride in a new paragraph (e). This new packaging method authorizes ethyl chloride in capsules not exceeding 150 g of gas each, closed with a secondary means applied, and placed in a strong outer packaging not to exceed 75 kg gross mass.

Part 175

Section 175.8

Section 175.8 provides exceptions from certain regulations for air carrier operator equipment and items of replacement. PHMSA is revising paragraph (b)(3) to clarify that transportation of alcoholic beverages, perfumes, colognes, and liquefied gas lighters carried aboard a passenger-carrying aircraft by an operator must be for use or sale of those items on that specific aircraft.

Two commenters (AA, COSTHA) requested that PHMSA align paragraph (b)(3) with the ICAO TI to permit onboard use of aerosols. COSTHA noted:

> A number of carriers currently are required to obtain a special permit to transport aerosols in Division 2.2, specifically for the dispensing of whipped cream or other food products * * * We believe if this list was amended by including "aerosols" this issue would be resolved.

We agree. Therefore, in this final rule we are revising paragraph (b)(3) to authorize use of Division 2.2 aerosols to dispense food products.

Section 175.9

Section 175.9 prescribes the applicability of the HMR to special aircraft and rotocraft operations. This section also prescribes the conditions under which certain operations may be performed in accordance with 14 CFR and 49 CFR (*e.g.,* avalanche and weather control). In this final rule, PHMSA is emphasizing that rotocraft operations are fully subject to both sets of regulations.

One commenter suggested revising paragraph (b)(6) to provide clarity. IME stated:

> This suggested language is consistent with [§] 177.835(g), which addressed the identical compatibility issue between explosives and detonators that are transported on the same conveyance. In addition, use of the terms "dynamite" and "blasting caps" without the additional reference to Division 1.1, 1.2, and 1.3 material could lead to the unintentional misinterpretation or misapplication of the rule.

We agree. Based on the comment provided, we are revising § 173.59(b)(6) to provide clarification.

Section 175.10

Section 175.10 specifies the conditions for which passengers, crew members or an operator may carry hazardous materials aboard an aircraft. PHMSA is adding a new paragraph (a)(17) to permit a mobility aid such as a wheelchair, containing a lithium ion battery, to be transported in accordance with the exceptions provided in this section. A wheelchair or other mobility aid that contains a lithium metal battery is not permitted aboard a passenger-carrying aircraft. As a result of this amendment, current paragraph (a)(17) is redesignated as paragraph (a)(18) and current paragraph (a)(18) is redesignated as paragraph (a)(19).

Three commenters (IATA, PRBA, Scoot) supported our proposal to add a new paragraph providing an exception for wheelchairs or other mobility aids containing a lithium ion battery, but requested that for consistency, we further align with the ICAO TI and accommodate carriage of these items by disabled passengers by allowing carriage in the aircraft cabin. For instance, Scoot shared:

> Our mobility scooter [is] designed to fold up and be stowed in the passenger cabin

* * *. They are often small enough to fit in the overhead bin. [T]he lithium-ion batteries are removed and hand-carried by the passenger in the same manner as * * * lithium-ion batteries used for consumer electronics.

PRBA expressed disappointment that PHMSA did not address authorizing passenger transport of certain medical devices powered by lithium metal batteries in this final rulemaking. We recognize the need for persons with medical disabilities to be able to carry devices powered by lithium metal batteries aboard a passenger-carrying aircraft. However, such a provision will be addressed in a separate rulemaking.

Paragraph (a)(19) is being revised to allow passengers and crew members to place certain spare fuel cell cartridges in checked baggage. This exception currently does not apply to Divisions 2.1 or 4.3 materials contained in spare fuel cell cartridges. Although the ICAO TI only restricts spare fuel cell cartridges containing Division 4.3 liquid materials from checked baggage, PHMSA strongly believes that the restriction must also include spare cartridges containing Division 2.1 materials. Thus, PHMSA proposed to allow spare fuel cell cartridges containing flammable and corrosive liquids in checked baggage while continuing to require spare fuel cell cartridges containing Division 2.1 and 4.3 materials to be carried aboard an aircraft in carry-on baggage only.

One commenter (ALPA) supported our position while several commenters (COSTHA, DGAC, IATA, JEMA, PRBA, TAEC, Trulite, USFCC) voiced strong opposition to our proposal to limit fuel cell cartridges permitted in checked baggage to those with flammable liquid or corrosive liquid fuels. As several commenters indicated, PHMSA did not provide data or analysis supporting the proposal, while tests performed at the FAA Technical Center on fuel cell cartridges containing flammable liquid material indicated that in the case of a fire involving these materials, the fire can be readily extinguished with current fire suppression systems onboard an aircraft.

Because Division 2.1 flammable gases are generally prohibited in air transportation on a passenger-carrying aircraft as cargo and due to the questionable integrity of such articles when packed in a passenger's checked baggage, PHMSA is adopting the prohibition in checked baggage of fuel cell cartridges containing Division 2.1 flammable gases and Division 4.3 solid dangerous when wet materials as proposed.

Section 175.25

PHMSA currently requires operators to provide certain information to passengers regarding what hazardous materials they may check-in or carry-on a flight. Effective January 1, 2013, this information is to be provided at points of ticket sale and at automated or remote passenger check-in. Consistent with the ICAO TI, these amendments will require a passenger to acknowledge such limitations before a ticket purchase and automated or remote check-in can be finalized. PHMSA believes these amendments only clarify existing regulatory requirements in § 175.25 that have not been updated due to changing technologies used by air carriers to either sell tickets (Internet) or check-in passengers (automated kiosks). Additionally, these amendments provide air carriers greater flexibility in how the information they are required to provide passengers on hazardous materials is disseminated to them.

Section 175.30

Section 175.30 prescribes inspection procedures for operators. PHMSA is revising paragraph (e) regarding overpack marking requirements for packages of limited and excepted quantities offered for transportation by aircraft.

Section 175.75

Section 175.75 prescribes quantity limitations and cargo location requirements for hazardous materials transported by aircraft. PHMSA is revising paragraph (e) to correct an inadvertent cargo compartment restriction for passenger-authorized materials carried aboard a cargo-only aircraft published in a final rule under Docket HM–215J (74 FR 2267, January 14, 2009). PHMSA is also revising paragraph (f) Quantity and Loading Tables for clarity.

Several commenters (ALPA, COSTHA, PRBA, UPS) objected to our inclusion of limitations on the stowage of lithium batteries in § 175.75 of the HMR and strongly urged that the limitations be removed from this rulemaking and addressed in a separate lithium battery rulemaking such as HM–224F. We agree. All reference to lithium batteries in our revisions to § 175.75 are removed from this rulemaking.

One commenter (UPS) fully supported our proposed clarification of the use of the Class C cargo compartment for shipments of material eligible for passenger aircraft under § 175.75(d); however, UPS did recommend an additional revision for clarity. Therefore, in this final rule we are revising paragraph (d) further to incorporate a second note into the table to clarify that for cargo-only aircraft, packages required to be loaded in a position considered accessible include those loaded into a Class C cargo compartment.

Several commenters requested that PHMSA offer the same exception from the loading restrictions in § 175.75 for limited quantity packages as are currently authorized for Class 9 and ORM–D–AIR materials. We agree that such packages should be afforded the same exceptions from the loading restrictions of § 175.75 as ORM–D–AIR materials and are revising the section accordingly.

Section 175.78

Section 175.78 prescribes the stowage compatibility of hazardous materials offered for transportation by aircraft. PHMSA is revising paragraph (c)(4)(iii) to specify that, except as provided in paragraph (c)(4)(iv) of § 175.78, Division 1.4B explosive materials may only be stowed together with Division 1.4S explosive materials. This revision is in accordance with an amendment made in the 2011–2012 ICAO Technical Instructions.

Part 176

Section 176.2

Section 176.2 establishes definitions specific to the transportation of hazardous materials by vessel. PHMSA is revising the definition for "Cargo transport unit" to include a multiple-element gas container or MEGC.

Section 176.63

Section 176.63 sets forth and describes the basic physical requirements for authorized stowage locations of hazardous materials on board vessels. PHMSA is amending paragraph (f)(2) by removing reference to the specific year of SOLAS, Chapter II–2/Regulation 19 (*i.e.,* 1974, as amended) for consistency with the manner in which IBR material is indicated throughout the HMR in outlying sections.

Section 176.76

Section 176.76 prescribes certain requirements for transport vehicles, freight containers, and portable tanks containing hazardous materials transported by vessel. In this final rule, we are revising paragraph (a)(9) to require that when security devices, beacons or other tracking or monitoring equipment are used, they must be securely installed and must be of a certified safe type for the hazardous

materials that will be carried within the freight container or transport vehicle.

Section 176.84

Section 176.84 outlines additional requirements for stowage and segregation of hazardous materials transported by cargo and passenger vessels. In this final rule, PHMSA is removing the redundant stowage code 143. This provision is currently assigned to UN1259, UN2845, UN3194, UN3392, and UN3394, and prohibits the carriage of the materials aboard a vessel transporting Class 1 (explosive) material (except for explosives of Division 1.4S). *See* Section 172.101 Hazardous Materials Table for the amendment that adds stowage code 78 to the above materials of extreme flammability. Such materials are now required to be "separated longitudinally by an intervening complete compartment or hold from explosives" based on amendments adopted in the IMDG Code.

Section 176.142

Section 176.142 prescribes the requirements for hazardous materials of extreme flammability transported on the same vessel as Class 1 (explosive) materials. In this final rule, PHMSA is deleting this section as the restriction no longer exists. Hazardous materials of extreme flammability are no longer prohibited from stowage on the same vessel as explosives. For entries previously affected by this section, the most restrictive stowage requirements are required.

Section 176.905

Section 176.905 prescribes specific requirements for motor vehicles or mechanical equipment powered by internal combustion engines that are offered for transportation and transported by vessel. For consistency with Amendment 35–10 of the IMDG Code, PHMSA is removing the signage requirement for such articles in paragraph (a)(5) and the ignition key removal provisions from paragraph (a)(6). Additionally, we are revising this section to account for modern designs of vehicles and equipment that are powered by engines other than internal combustion engines (*e.g.,* electric engines powered by a fuel cell, hybrid vehicles). We are revising this section to include language applicable to address these new designs. We did not propose these changes in the August 24, 2010 NPRM, but we do not believe including language to account for new designs imposes new restrictions or any greater burdens than currently in the regulations.

Part 178

Section 178.71

Section 178.71 establishes the specifications for UN pressure receptacles. In this final rule, PHMSA is adopting the regulatory relief proposed in Docket HM–218F (75 FR 60017, 75 FR 60017) by revising the requirements in paragraph (c)(1) to allow the use of a proof pressure test in addition to the volumetric expansion test. The ISO 7866 and 9809 standards permit either the proof pressure test or volumetric expansion test to be used. The volumetric expansion test measures the cylinder's elastic expansion and assures the cylinder received a proper heat treatment. However, the ISO standards also require each cylinder be subjected to a hardness test and a comprehensive shear wave ultrasonic examination (UE). PHMSA believes the combination of the proof pressure test, hardness test, and UE should provide adequate assurance that each cylinder received a proper heat treatment. This limitation (*i.e.,* volumetric expansion test only) is also removed from the test pressure marking requirement in the redesignated paragraph (p)(6).

In this final rule, PHMSA is also amending the cylinder bundle marking requirements in § 178.71(e) by adding a new paragraph (e)(8) specifying that pressure vessel markings only apply to the pressure vessel itself and not to the assembly structure of the bundle. Additionally, we are adding new paragraphs (f) and (m) that establish the design and construction requirements for UN metal hydride storage systems and refillable welded cylinders, respectively. To accomplish this, we are redesignating paragraphs (m) through (r) as paragraphs (n) through (s), and revising paragraphs (q) and (s) accordingly to correct paragraph references. Further, we are adding three ISO standards to the IBR table in § 171.7 of the HMR for UN refillable welded cylinders (ISO 4706, 18172–1 and 20703). Lastly, we are requiring that transportable metal hydride storage systems (*see* § 173.311) be designed, constructed, initially inspected and tested in accordance with ISO 16111:2008, "Transportable gas storage devices—Hydrogen absorbed in reversible metal hydride," as authorized under § 178.71(m).

Section 178.275

Section 178.275 prescribes requirements for UN portable tanks intended for transportation of liquid and solid hazardous materials. Section 178.275(h) prohibits the use of fusible elements on portable tanks with a test pressure which exceeds 2.65 bar (265 kPa). In § 172.102(c)(8), we are adding a new portable tank special provision TP36 authorizing the use of fusible elements in the vapor space of portable tanks with a gauge test pressure that exceeds 265 kPa (38.4 psig/2.65 bar) for certain organometallic substances. In this final rule, we are authorizing use of fusible elements based on a well-established history of safe transportation of these substances in portable tanks equipped with fusible elements capable of properly functioning at pressure of at least 1,000 kPa (145 psig/10 bar). Past experience of the use of fusible elements indicates reliability and a proper functioning even in the event of a release during loading or unloading. Additionally, for organometallic materials that are shipped in rigid portable tanks with a minimum test pressure of more than 265 kPa (38.4 psig/2.65 bar), the tanks are required to be equipped with a depressurizing system that releases the inside pressure to avoid rupturing the tank as a result of an inadvertent release or fire. Fusible elements are used by shippers as a secondary pressure relief device, in addition to a re-closing pressure relief device. Therefore, we are revising § 178.275(h) to reference special provision TP36 authorizing the use of fusible elements in the vapor space of a portable tank used for the transport of certain organometallic materials.

Section 178.347–1

Section 178.347–1 prescribes the general requirements for DOT Specification 407 cargo tank motor vehicles. Paragraph (d)(9) prescribes weld integrity, compliance and acceptance criteria for bulkheads.

The exception in § 178.347–1(d)(8) currently provides an unconditional exception from UW–12 for all joints. Section 178.347–1(d)(9) applies a condition to one particular joint configuration in a head. In petition P–1333, TTMA requested that we adopt a weld joint efficiency of 0.85 for head seams in bulkheads on DOT 407 cargo tanks. Based on review of the TTMA petition and additional information that was provided, we proposed in the HM–213 NPRM (66 FR 63095, December 4, 2001) that the strength of a weld seam in a bulkhead without radiographic examination of the weld must be 0.85 of the strength of the bulkhead. The welded seam must be a full penetration butt weld, no more than one seam may be used per bulkhead, and the welded seam must be completed before forming the dish radius and knuckle radius.

TTMA commented on the proposal stating, "[w]hile we agree with the

proposal to allow a provisional 85% weld joint efficiency for DOT 407 heads with butt-welded seams, we would like to see the requirements of UW–12 of the ASME Code specifically exempted for this welded joint. Even though this section implies an exemption, the exemption is not specific. We suggest the following wording, "[t]he strength of a weld seam in a bulkhead that has not been radiographically examined shall be 0.85 of the strength of the bulkhead and be exempted from the requirements of UW–12 of the ASME Code under the following condition".

In the HM–213 final rule, we agreed with TTMA's comment and agreed to make the change though the change occurred in a corrections document (68 FR 52363, September 3, 2003). The final rule stated: "[I]n its comments to the NPRM, TTMA agrees with the provisional 85% weld joint efficiency for DOT 407 heads with butt-welded seams. However, TTMA suggests that we include the requirements of Part UW–12 of the ASME Code to the list of excepted requirements in § 178.347–1(d)(8). We agree with TTMA. In this final rule, we are adding Part UW–12 of the ASME Code to the list of excepted requirements."

In October 2004, we added an exception from the radiography/joint efficiency requirements of ASME VIII section UW–12 for DOT 407 cargo tanks with MAWP of 35 psig and less in § 178.347–1(d)(8) and (9). The intent was to provide a conditional alternate means of determining a joint efficiency for certain head welds. Listing UW–12 in § 178.347–1(d)(8) instead of (9), however, results in an unconditional exception from UW–12 in all welds on these tanks. Therefore, because we believe the revision is appropriate, we are revising § 178.347–1(d)(9), as proposed, by adding a new subparagraph (i) and renumbering the section accordingly.

Section 178.603

Section 178.603 prescribes the drop test requirements for non-bulk packagings in the HMR. In this final rule, PHMSA is revising paragraph (f)(4) to amend the criteria for passing the tests. The HMR require only that there is no leakage of filling substance from the inner packaging. In this final rule, we are also requiring that inner receptacles, inner packagings and articles remain completely within the outer package when drop tested.

Section 178.703

Section 178.703 prescribes the marking requirements for IBCs. PHMSA is aligning paragraph (a)(1)(viii) with the UN Model Regulations by requiring the gross mass, in kilograms, to be marked on all IBC types. The HMR require a net mass to be marked on flexible IBCs which is inconsistent with international standards. PHMSA inadvertently did not revise the HMR under a previous harmonization rulemaking when the international standards were amended to specify that a maximum permissible gross mass be marked on all IBC types.

Section 178.955

Section 178.955 establishes definitions used with regard to subpart Q of part 178, which prescribes the design and testing criteria for Large Packagings. PHMSA is adding the following two new definitions, "Remanufactured Large Packaging" and "Reused Large Packaging," in new paragraphs (c)(6) and (c)(7), respectively. A "remanufactured" large packaging is defined as a metal or rigid plastic large packaging that is produced as a UN type from a non-UN type or is converted from one UN design type to another UN design type. Remanufactured large packagings are subject to the same HMR requirements that apply to a new large packaging. A "reused" large packaging is defined as a large packaging to be refilled that has been examined and found free of defects affecting the ability to withstand the performance tests. The term includes those that are refilled with the same or similar compatible contents and are transported within distribution chains controlled by the consignor of the product.

Part 180

Section 180.207

Section 180.207 prescribes the requirements for the requalification of UN pressure receptacles. In this final rule, PHMSA is requiring that metal hydride storage systems be requalified every five years in accordance with ISO 16111:2008 and that the records of that requalification be retained in accordance with § 180.215 of the HMR.

Section 180.350

Section 180.350 prescribes applicability and defines certain terms regarding the qualification and maintenance of IBCs. PHMSA is revising paragraph (b) to indicate that the replacement of the inner receptacle of a composite IBC with one from the original manufacturer is considered a repair. This revision is consistent with the recent change in the definition of "repair" in the UN Model Regulations.

V. Regulatory Analyses and Notices

A. Statutory/legal Authority for This Rulemaking

This final rule is published under the following statutory authorities:

1. 49 U.S.C. 5103(b) authorizes the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous materials in intrastate, interstate, and foreign commerce. This final rule amends regulations to maintain alignment with international standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations and vessel stowage requirements. To this end, as discussed in detail above, the final rule amends the HMR to more fully align them with the biennial updates of the UN Model Regulations, the IMDG Code and the ICAO TI.

Harmonization serves to facilitate international commerce. At the same time, harmonization promotes the safety of people, property, and the environment by reducing the potential for confusion and misunderstanding that could result if shippers and transporters were required to comply with two or more conflicting sets of regulatory requirements. While the intent of this rulemaking is to align the HMR with international standards, we review and consider each amendment on its own merit based on its overall impact on transportation safety and the economic implications associated with its adoption into the HMR. Our goal is to harmonize without sacrificing the current HMR level of safety and without imposing undue burdens on the regulated public. Thus, as explained in the corresponding sections above, we are not harmonizing with certain specific provisions of the UN Model Regulations, the IMDG Code, and the ICAO TI. Moreover, we are maintaining a number of current exceptions for domestic transportation that should minimize the compliance burden on the regulated community.

2. 49 U.S.C. 5120(b) authorizes the Secretary of Transportation to ensure that, to the extent practicable, regulations governing the transportation of hazardous materials in commerce are consistent with standards adopted by international authorities. This rule amends the HMR to maintain alignment with international standards by incorporating various amendments to facilitate the transport of hazardous material in international commerce. To this end, as discussed in detail above,

PHMSA incorporates changes into the HMR based on the sixteenth revised edition of the UN Model Regulations and the 2011–2012 ICAO Technical Instructions, which become effective January 1, 2011, and Amendment 35–10 to the IMDG Code which becomes effective January 1, 2012. The continually increasing amount of hazardous materials transported in international commerce warrants the harmonization of domestic and international requirements to the greatest extent possible.

B. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is not considered a significant regulatory action under section 3(f) of Executive Order 12866 and, therefore, was not reviewed by the Office of Management and Budget. The final rule is not considered a significant rule under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034). This final rule applies to offerors and carriers of hazardous materials, such as chemical manufacturers, chemical users and suppliers, packaging manufacturers, distributors, radiopharmaceutical companies, and training companies. Benefits resulting from the adoption of the amendments in this final rule include enhanced transportation safety resulting from the consistency of domestic and international hazard communications and continued access to foreign markets by U.S. manufacturers of hazardous materials.

The majority of amendments in this final rule should result in cost savings and ease the regulatory compliance burden for shippers engaged in domestic and international commerce, including trans-border shipments within North America.

We authorize a one year transition period to allow for training of employees and to ease any burden on entities affected by the amendments. The total net increase in costs to businesses in implementing the final rule is considered to be minimal. Initial start-up and inventory costs will result from these changes. However, the costs are offset by greater long term savings of conformance with one set of regulations and a one-year transition period. A regulatory evaluation is available for review in the public docket for this rulemaking.

C. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 ("Federalism"). This final rule preempts State, local and Indian Tribe requirements but does not propose any regulation that has substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazardous material transportation law, 49 U.S.C. 5101–5128, contains an express preemption provision (49 U.S.C. 5125(b)) that preempts State, local and Indian Tribe requirements on certain covered subjects, as follows:

(1) The designation, description, and classification of hazardous material;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous material;

(3) The preparation, execution, and use of shipping documents related to hazardous material and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; and

(5) The design, manufacture, fabrication, inspection, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material in commerce.

This final rule addresses covered subject items (1), (2), (3), (4) and (5) above and preempts State, local, and Indian Tribe requirements not meeting the "substantively the same" standard. This final rule is necessary to incorporate changes adopted in international standards, effective January 1, 2011. If the changes in this final rule are not adopted into the HMR, U.S. companies, including numerous small entities competing in foreign markets, would be at an economic disadvantage. These companies would be forced to comply with a dual system of regulations. The changes in this final rulemaking are intended to avoid this result. Federal hazardous materials transportation law provides at 49 U.S.C. 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date of Federal preemption is 90 days from publication of the final rule in this matter.

D. Executive Order 13175

This final rule was analyzed in accordance with the principles and criteria contained in Executive Order 13175 ("Consultation and Coordination with Indian Tribal Governments"). Because this final rule does not have Tribal implications, does not impose substantial direct compliance costs, and is required by statute, the funding and consultation requirements of Executive Order 13175 do not apply.

E. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities, unless the agency determines that a rule is not expected to have a significant impact on a substantial number of small entities. This final rule facilitates the transportation of hazardous materials in international commerce by providing consistency with international standards. This final rule applies to offerors and carriers of hazardous materials, some of whom are small entities, such as chemical manufacturers, users and suppliers, packaging manufacturers, distributors and training companies. As discussed above, under Executive Order 12866, the majority of amendments in this final rule should result in cost savings and ease the regulatory compliance burden for shippers engaged in domestic and international commerce, including trans-border shipments within North America.

Many companies will realize economic benefits as a result of these amendments. Additionally, the changes effected by this final rule will relieve U.S. companies, including small entities competing in foreign markets, from the burden of complying with a dual system of regulations. Therefore, I certify that these amendments will not, if promulgated, have a significant economic impact on a substantial number of small entities.

This final rule has been developed in accordance with Executive Order 13272 ("Proper Consideration of Small Entities in Agency Rulemaking") and DOT's procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts of draft rules on small entities are properly considered.

F. Paperwork Reduction Act

PHMSA currently has approved information collections under Office of Management and Budget (OMB) Control Number 2137–0034, "Hazardous Materials Shipping Papers and Emergency Response Information," with an expiration date of May 31, 2011, and OMB Control Number 2137–0557,

"Approvals for Hazardous Materials," with an expiration date of June 30, 2011. This final rule may result in a decrease in the annual burden and costs of OMB Control Number 2137–0034 due to amendments to the exceptions for shipping paper requirements for limited quantities of Class 3, Division 4.1, Division 4.2, Division 4.3, Division 5.1, Division 5.2, Division 6.1, Class 8, and Class 9 materials for those limited quantities that are defined as consumer commodities. This final rule may result in an increase in the annual burden and costs of OMB Control Number 2137–0557 due to amendments to the classification criteria for eight Division 1.4 explosive articles to add the Type 6(d) test as prescribed in the fifth revised edition of the UN Manual of Tests and Criteria.

Under the Paperwork Reduction Act of 1995, no person is required to respond to an information collection unless it has been approved by OMB and displays a valid OMB control number. Section 1320.8(d), Title 5, Code of Federal Regulations requires that PHMSA provide interested members of the public and affected agencies an opportunity to comment on information and recordkeeping requests.

This final rule identifies revised information collection requests that PHMSA will submit to OMB for approval based on the requirements in this final rule. PHMSA has developed burden estimates to reflect changes in this final rule, and estimates the information collection and recordkeeping burden as proposed in this rule to be as follows:

OMB Control No.	2137–0034
Annual Decrease in Number of Respondents	75,000,000
Annual Decrease in Annual Number of Responses	75,000,000
Annual Decrease in Annual Burden Hours	1,875,000
Annual Decrease in Annual Burden Costs	$1,875,000.00
OMB Control No.	**2137–0557**
Annual Increase in Number of Respondents	465
Annual Increase in Annual Number of Responses	465
Annual Increase in Annual Burden Hours	2,325
Annual Increase in Annual Burden Costs	$58,125

PHMSA will submit the revised information collection and recordkeeping requirements to OMB for approval.

G. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

H. Unfunded Mandates Reform Act

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $141.3 million or more, adjusted for inflation, to either State, local or Tribal governments, in the aggregate, or to the private sector in any one year, and is the least burdensome alternative that achieves the objective of the rule.

I. Environmental Assessment

The National Environmental Policy Act, 42 U.S.C. 4321–4375, requires that Federal agencies analyze proposed actions to determine whether the action will have a significant impact on the human environment. The Council on Environmental Quality (CEQ) regulations order Federal agencies to conduct an environmental review considering (1) the need for the proposed action, (2) alternatives to the proposed action, (3) probable environmental impacts of the proposed action and alternatives, and (4) the agencies and persons consulted during the consideration process. 40 CFR 1508.9(b).

1. Purpose and Need

PHMSA proposed to amend the Hazardous Materials Regulations to maintain alignment with international standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations, and vessel stowage requirements. These revisions are necessary to harmonize the Hazardous Materials Regulations with recent changes to the International Maritime Dangerous Goods Code, the International Civil Aviation Organization's Technical Instructions for the Transport of Dangerous Goods by Air, and the United Nations Recommendations on the Transport of Dangerous Goods. The amendments are intended to enhance the safety of international hazardous materials transportation through better understanding of the regulations, an increased level of industry compliance, the smooth flow of hazardous materials from their points of origin to their points of destination, and effective emergency response in the event of a hazardous materials incident.

The HMR regulate materials that meet the definition of a marine pollutant in all modes of transportation. The intended effect is to increase the level of safety associated with the transportation of substances hazardous to the marine environment by way of improved communication of their presence in transportation and establishing appropriate requirements for their packaging. The HMR uses a list-based system designed to help shippers determine if a material meets the definition of a marine pollutant. Recently, the IMO adopted a criteria based system for identification of materials hazardous to the marine environment based on the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

2. Alternatives

In developing this proposed rule, we considered three alternatives:

(1) Do nothing.

(2) Adopt the international standards in their entirety.

(3) Adopt most of the international standards, with certain modifications based on safety or economic considerations.

Alternative 1: Because our goal is to facilitate uniformity, compliance, commerce and safety in the transportation of hazardous materials, we rejected this alternative.

Alternative 2: By adopting the international standards in their entirety,

PHMSA could potentially adopt provisions that, in our view, do not provide an adequate safety level. Further, because we provide for domestic exceptions and extended compliance periods to minimize the potential economic impact of any revisions on the regulated community, this alternative was also rejected.

Alternative 3: Consistency between U.S. and international regulations helps to assure the safety of international hazardous materials transportation through better understanding of the regulations, an increased level of industry compliance, the smooth flow of hazardous materials from their points of origin to their points of destination, and effective emergency response in the event of a hazardous materials incident. Under Alternative 3, we would harmonize the HMR with international standards to the extent consistent with U.S. safety and economic goals.

Alternative 3 is the only alternative that addresses, in all respects, the purpose of this regulatory action, which is to facilitate the safe and efficient transportation of hazardous materials in international commerce. These actions will provide the greatest possible harmonization with international requirements without posing an undue increased cost burden on industry. For these reasons, Alternative 3 is our recommended alternative.

3. Analysis of Environmental Impacts

Hazardous materials are transported by aircraft, vessel, rail, and highway. The potential for environmental damage or contamination exists when packages of hazardous materials are involved in accidents or en route incidents resulting from cargo shifts, valve failures, package failures, or loading, unloading, or handling problems. The ecosystems that could be affected by a release include air, water, soil, and ecological resources (*e.g.,* wildlife habitats). The adverse environmental impacts associated with releases of most hazardous materials are short-term impacts that can be greatly reduced or eliminated through prompt clean-up of the accident scene. Most hazardous materials are not transported in quantities sufficient to cause significant, long-term environmental damage if they are released.

The hazardous material regulatory system is a risk-management system that is prevention-oriented and focused on identifying hazards and reducing the probability and quantity of a hazardous material release. Amending the HMR to maintain alignment with international standards enhances the safe transportation of hazardous materials in domestic and international commerce. When considering the adoption of international standards under the HMR, we review and consider each amendment on its own merit and assess its impact on transportation safety and the environment. Based on the lack of public comment on the issue, it is our conclusion that the amendments adopted in this final rule will have no adverse affect on the environment.

4. Consultations and Public Comment

On June 20, 2007, November 27, 2007, June 18, 2008, and November 19, 2008, PHMSA hosted public meetings with public and private stakeholders to discuss draft U.S. positions on the United Nation's Sub-Committee of Experts on the Transport of Dangerous Goods (UNSCOE) proposals for the sixteenth revised edition of the UN Recommendations on the Transport of Dangerous Goods Model Regulations. In addition, PHMSA and the U.S. Coast Guard hosted a public meeting on September 17, 2008, and hosted a second meeting on September 10, 2009, to discuss amendments to the IMDG Code. A public meeting was held on September 29, 2009 to discuss amendments to the ICAO Technical Instructions. During these public meetings, U.S. positions on proposed amendments to the UN Recommendations were considered and discussed. Positions were established based on input received during these meetings in conjunction with internal review, including thorough technical review.

We have identified a number of immediate and long-term actions that participants in the international community are taking or will take to enhance the safe transportation of hazardous materials. Through this integrated and cooperative approach, we believe we can be most successful in reducing incidents, enhancing safety, and protecting the public.

J. Privacy Act

Anyone is able to search the electronic form of any written communications and comments received into any of our dockets by the name of the individual submitting the document (or signing the document, if submitted on behalf of an association, business, labor union, *etc.*). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477) or you may visit *http://www.dot.gov/privacy.html.*

K. International Trade Analysis

The Trade Agreements Act of 1979 (Pub. L. 96–39), as amended by the Uruguay Round Agreements Act (Pub. L. 103–465), prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. For purposes of these requirements, Federal agencies may participate in the establishment of international standards, so long as the standards have a legitimate domestic objective, such as providing for safety, and do not operate to exclude imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. PHMSA participates in the establishment of international standards to protect the safety of the American public, and we have assessed the effects of the proposed rule to ensure that it does not exclude imports that meet this objective. Accordingly, this rulemaking is consistent with PHMSA's obligations under the Trade Agreement Act, as amended.

List of Subjects

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

49 CFR Part 172

Education, Hazardous materials transportation, Hazardous waste, Incorporation by reference, Labeling, Markings, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 173

Hazardous materials transportation, Incorporation by reference, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

49 CFR Part 175

Air carriers, Hazardous materials transportation, Incorporation by reference, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 176

Hazardous materials transportation, Incorporation by reference, Maritime carriers, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 178

Hazardous materials transportation, Incorporation by reference, Motor vehicle safety, Packaging and

containers, Reporting and recordkeeping requirements.

49 CFR Part 180

Hazardous materials transportation, Motor carriers, Motor vehicle safety, Packaging and containers, Railroad safety, Reporting and recordkeeping requirements.

Issued in Washington, DC on December 29, 2010 under authority delegated in 49 CFR part 1.

Cynthia L. Quarterman,

Administrator.

[FR Doc. 2010–33324 Filed 1–18–11; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 172, 173, 175, and 176

[Docket No. PHMSA–2009–0126 (HM–215K)]

RIN 2137–AE76

Hazardous Materials: Harmonization With the United Nations Recommendations on the Transport of Dangerous Goods: Model Regulations, International Maritime Dangerous Goods Code, and the International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Final rule.

SUMMARY: This document responds to administrative appeals, provides clarifications, and corrects typographical and other minor errors adopted in an international harmonization final rule published January 19, 2011 (HM–215K; 76 FR 3308). The final rule amended the Hazardous Materials Regulations (HMR) by revising, removing or adding proper shipping names, the hazard class of a material, packing group assignments, special provisions, packaging authorizations, packaging sections, air transport quantity limitations, and vessel stowage requirements. The amendments were necessary to align the HMR with recent revisions to international standards for the transport of hazardous materials by all modes.

DATES: *Effective Date:* January 1, 2012.

Voluntary compliance date: PHMSA is authorizing voluntary compliance beginning December 30, 2011.

ADDRESSES: For access to the docket to read background documents, including those referenced in this document, or to read comments received, go to *http://www.regulations.gov* at any time and insert ''PHMSA–2009–0126'' in the ''Keyword'' box, and then click ''Search.'' You may also view the docket online by visiting the Docket Management Facility in Room W12–140, DOT Building, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., e.t. Monday through Friday, except Federal holidays.

Anyone is able to search the electronic form for all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, *etc.*). You may review the U.S. Department of Transportation's (DOT) complete Privacy Act Statement in the **Federal Register** published on January 17, 2008 (73 FR 3316), or you may visit *http://edocket.access.gpo.gov/2008/pdf/E8-785.pdf.*

FOR FURTHER INFORMATION CONTACT: Michael Stevens, telephone (202) 366–8553, or Shane Kelley, telephone (202) 366–0656, Standards and Rulemaking Division, telephone (202) 366–8553, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue SE., 2nd Floor, Washington, DC 20590–0001.

SUPPLEMENTARY INFORMATION:

I. Background

On January 19, 2011, PHMSA published a final rule under Docket PHMSA–2009–0126 (HM–215K; 76 FR 3308) that revised the Hazardous Materials Regulations (HMR; 49 CFR Parts 171–180) to align with various international standards. The final rule adopted amendments to the HMR regarding hazard communication, hazard classification including packing group assignment, packaging authorization, air transport quantity limitations, and various other international harmonization-related topics. The amendments were necessary to align the HMR with the latest revisions to the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions), the International Maritime Organization's Dangerous Goods Code (IMDG Code), Transport Canada's Transportation of Dangerous Goods Regulations (TDG Regulations), and the United Nations Recommendations on the Transport of Dangerous Goods: Model Regulations (UN Model Regulations) to facilitate to the seamless transportation of hazardous materials internationally, to, through and from the United States.

In this document, PHMSA responds to administrative appeals, provides clarifications, and corrects typographical and other minor errors adopted in the January 19, 2011 final rule.

II. Administrative Appeals Filed in Response to the HM–215K Final Rule

In response to the January 19, 2011 final rule, administrative appeals were submitted by the following companies and organizations:

American Coatings Association (ACA)
Association of Hazmat Shippers, Inc. (AHS)
Dangerous Goods Advisory Council, Inc. (DGAC)
Fuel Cell and Hydrogen Energy Association (FCHEA)
Healthcare Distribution Management Association (HDMA)
International Air Transport Association (IATA)
Patton Boggs, LLP., on behalf of Lilliputian Systems, Inc. (LSI)
PPG Industries (PPG)
Sporting Arms & Ammunition Manufacturer's Institute (SAAMI)

The administrative appeals addressed in this document are discussed in detail below. Because some of the issues raised by appellants require notice and public comment under the Administrative Procedure Act (APA; 5 U.S.C. 553), they are being proposed in a separate notice of proposed rulemaking (NPRM) under this docket number (PHMSA–2009–0126; RIN 2137–AE83). For example, FCHEA and LSI requested that PHMSA revise § 175.10 to align with the ICAO Technical Instructions and allow spare fuel cell cartridges containing Division 2.1 flammable gas to be carried in checked baggage. We are also aware of recent actions taken by the International Civil Aviation Organization's Dangerous Goods Panel regarding certain lithium ion battery-powered mobility aids (*e.g.,* wheelchairs, travel scooters) offered by passengers for air transport. Such actions could affect the outcome of the administrative appeal submitted by IATA in response to the January 19, 2011 final rule and, therefore, those actions will also be addressed in the separate NPRM.

We can, however, in some instances adopt a provision submitted in an administrative appeal that was inadvertently omitted in the final rule if it is clearly within the scope of changes proposed in the notice, does not require substantive changes from the international standard on which it is based, and imposes minimal or no cost impacts on persons subject to the requirement. Otherwise, in order to provide opportunity for notice and comment, the change must first be proposed in an NPRM.

A. Use of the Square-on-Point With Identification Number Limited Quantity Marking

Currently, under § 172.315 of the HMR and except for transportation by aircraft, a packaging containing a limited quantity material is not required to be marked with the proper shipping name when marked with a square-on-point containing the UN identification (ID) number of the limited quantity material. In the January 19, 2011 final rule, we provided a one-year transition period to authorize continued use of this marking before the revisions to the limited quantity markings become effective. ACA, DGAC, and PPG all state the one-year transition period does not allow sufficient time to deplete stock(s) of packagings pre-printed with the square-on-point mark containing the ID number and requested an extension of three- to five-years. Appellants request that PHMSA provide a transition period similar to the transition period provided for the phase-out of the ORM–D marking, depending on the mode of transportation. Appellants also requested that any transition periods be included in §§ 171.14 (transitional provisions) and 172.300 (marking applicability).

PHMSA Response

We agree. Shippers should be provided the same transition period that authorizes the continued use of the square-on-point mark containing the UN ID number provided for ORM–D markings. In this document, we are granting the appeals submitted by ACA, DGAC, and PPG and revising § 172.315 by extending the transition period, until December 31, 2013 for other than air transportation. For domestic air transportation, we are authorizing use of the square-on-point mark containing the ID number to continue until December 31, 2012 as adopted in the January 19, 2011 final rule. However, we are not revising §§ 171.14 and 172.300 to include the transition periods because we believe it is overly duplicative.

B. Fuel Cell Cartridges Aboard Passenger-Carrying Aircraft

In this document, we respond to two administrative appeals related to the transportation of fuel cell cartridges. The administrative appeals are discussed as follows:

1. Fuel Cell Cartridges Transported as ORM–D by Air

In the January 19, 2011 final rule, we revised the limited quantity

requirements for fuel cell cartridges to allow transportation as ''Consumer commodity, ORM–D,'' except when transported by aircraft.

FCHEA states not allowing the transportation by aircraft of fuel cell cartridges as ORM–D–AIR is inconsistent with the ICAO Technical Instructions and the UN Model Regulations and claims that the difference is ''impractical'' from an international trade and enforcement standpoint. They note there are no safety consequences when comparing the air transportation of fuel cell cartridges shipped as limited quantity material and those shipped as ORM–D–AIR. They also note that fuel cell cartridges are sturdy articles that meet a range of tests and requirements to ensure they do not pose unreasonable risks in transportation. FCHEA requests PHMSA to allow fuel cell cartridges to be transported as ORM–D–AIR by aircraft so that fuel cell technologies are not placed at a disadvantage compared to other technologies authorized to be transported by aircraft.

PHMSA response.

We deny FCHEA's administrative appeal that would authorize fuel cell cartridges to be offered and transported as ''Consumer commodity, ORM–D–AIR,'' by aircraft. When packages of articles or substances are renamed ''Consumer commodity'' and are reclassed as ''ORM–D–AIR,'' the identity and risk posed by the substance or article is no longer communicated. This is one of the primary reasons the ORM–D–AIR hazard class is being phased-out by the end of 2012. We believe the authorization to offer fuel cell cartridges as limited quantities by passenger-carrying and cargo-only aircraft satisfies the need for the expedient transportation of such articles, while communicating their risk, and imposing minimal regulatory burden.

2. Fuel Cell Systems and Cartridges Aboard Passenger-Carrying Aircraft

FCHEA's administrative appeal indicated that in addition to the differences in fuel cell cartridge chemistries authorized in checked baggage, there are a number of inconsistencies and editorial issues when comparing § 175.10 and the ICAO Technical Instructions regarding fuel cell systems and cartridges used to power portable electronic devices authorized to be carried aboard passenger-carrying aircraft. They note that over the last several years, revisions to the ICAO Technical Instructions have made the regulatory language clearer. FCHEA requests that PHMSA make similar revisions to avoid any potential confusion between requirements under the HMR and the ICAO Technical Instructions.

PHMSA response.

We agree. Thus, we are granting FCHEA's administrative appeal to editorially revise § 175.10(a)(19) to be consistent with language in 8; 1.1.2 (t) of the ICAO Technical Instructions. This clarification does not, however, revise current HMR provisions regarding such articles and is entirely editorial in nature.

C. General Requirements for Transportation by Aircraft

As adopted in the January 19, 2011 final rule, the general air packaging requirements for combination packagings prohibit Class 1 (explosive) and Class 7 (radioactive) material to be offered for transportation as limited quantity material by aircraft. *See* 76 FR 3369. In their administrative appeal, DGAC and SAAMI state this is inconsistent with other provisions in the HMR that allow the transportation of these materials by aircraft, specifically, §§ 173.421 through 173.425 for limited quantity radioactive material, instruments, and articles and § 173.63(b) for certain Division 1.4S explosive articles. DGAC and SAAMI request that PHMSA revise the list of prohibited hazardous material and articles and Table 3 in § 173.27(f) to clarify that Class 1 (explosive) material conforming to § 173.63(b) and Class 7 (radioactive) material conforming to §§ 173.421 through 173.425, as applicable, are authorized for transportation by aircraft. Additionally, DGAC requests UN3334 (''Aviation regulated liquid, n.o.s.'') and UN3335 (''Aviation regulated solid, n.o.s.'') be added to the list of Class 9 (miscellaneous hazard) material as the substances are currently authorized as limited quantity material under the § 173.155 exceptions for Class 9 material and for consistency with the ICAO Technical Instructions.

PHMSA response.

We agree. DGAC and SAAMI are correct, and we are therefore granting their administrative appeals by revising § 173.27(f) to reflect current regulations that authorize the shipment of these substances and articles by aircraft. We want to point out that although certain Class 1 and Class 7 materials are indicated as eligible for air transport in § 173.27(f), such indication is provided for informational purposes to aid readers in indentifying the appropriate packaging and other regulatory provisions for such materials. For example, packages of such materials are not marked with the limited quantity ''Y'' mark prescribed in § 172.315 but rather as prescribed in §§ 173.63 and 173.421 through 173.425, as appropriate.

D. Self-Reactive Material as a Limited Quantity

In the UN Model Regulations, certain Division 4.1 self-reactive materials are authorized limited quantity exceptions. Currently, the HMR do not authorize such exceptions. AHS appealed to PHMSA to include a limited quantity exception for the material ''Self-reactive solid, Type F, UN3230.'' AHS notes that they filed a petition for rulemaking in 2009 (P–1542), to which PHMSA replied by stating that the petition merited rulemaking action and that it would be addressed in the January 19, 2011 final rule.

PHMSA response.

We recognize the merits of AHS's appeal and petition for rulemaking, but are denying AHS's administrative appeal because it is beyond the scope of this rulemaking. To accommodate the federally mandated requirement for notice and comment during a significant rulemaking action, the petition must be presented under a notice of proposed rulemaking to allow for comment by all interested parties. We regret the unintentional omission of a proposal in the NPRM for a limited quantity exception for ''Self-reactive solid, Type F, UN3230'' and for adoption under the January 19, 2011 final rule. We fully intend to include a proposal for this material as a broader effort to revise the packaging requirements for all eligible self-reactive materials in a near-term rulemaking action.

III. Clarification of the HM–215K Final Rule

A. Use of the Limited Quantity ''Y'' Marking

In the January 19, 2011 final rule, we adopted new limited quantity markings consistent with the ICAO Technical Instructions, IMDG Code, and the UN Model Regulations to include a limited quantity ''Y'' marking for display on packagings prepared for air transportation. In their administrative appeals, ACA and DGAC ask for a clearer indication of when this new marking may be used in modes of transportation by other than aircraft. They note PHMSA's consideration in the January 19 final rule of a comment stating that the limited quantity ''Y'' marking should be authorized for use in all modes of transportation if displayed on a packaging that meets all conditions and requirements for air transportation. *See 76 FR 3313.* Additionally, on the

basis of their opposition to adoption of the air transport requirements for limited quantities consistent with the ICAO Technical Instructions, DGAC recommends that:

> The ''Y'' package mark [proposed] in § 172.315 not be required * * * [and] recommend that [PHMSA] allow permissive use of the ''Y'' mark for all modes of transport when the package meets the relevant requirements of the ICAO TI.

We agreed with the DGAC recommendation that a ''Y'' marked package in full conformance with the air transport provisions prescribed for a limited quantity package should be authorized in all modes of transportation and also stated we would revise § 171.22 accordingly. Although we indicated our intent to revise § 171.22, which prescribes the authorization and conditions for use of international standards, we inadvertently failed to amend the corresponding regulatory text of the section. In its administrative appeal, ACA also requests that PHMSA amend this section to indicate the limited quantity ''Y'' marking is authorized for use in all modes of transportation. Further, DGAC suggests that we revise § 172.315 to include language authorizing the use of this marking by modes other than air.

PHMSA response.

We agree. Our indication in the final rule to revise § 171.22 was in error as that section prescribes the authorization to use the various international standards. Regardless, we clearly indicated in the preamble of the final rule that the display of a ''Y'' marking on limited quantity package that is not intended for transportation by aircraft is authorized. Thus, because a limited quantity package prepared for air transportation by default is authorized by all modes of transportation, the administrative appeals requesting that PHMSA align with the international standards are hereby granted. See the Section-by-Section review of changes for a full discussion of the § 172.315 revisions and requirements.

B. General Requirements for Transportation by Aircraft

In the January 19, 2011 final rule, we revised the § 173.27 general requirements for transportation of packagings by aircraft. Specifically, we revised paragraph (f) by including a new Table 3 that prescribes the requirements for authorized limited quantity material intended for air transportation consistent with the 2011–2012 ICAO Technical Instructions, where appropriate.

AHS notes that PHMSA included ''Consumer commodity, ID8000'' as authorized Class 9 material but failed to revise paragraph (f)(2)(i)(G) for Class 9 material not authorized as limited quantity material by aircraft. As indicated by AHS, ''Consumer commodity, ID8000'' may be shipped as limited quantity material by aircraft, thus ''ID8000'' should be added to the list of materials excepted from the Class 9 prohibition in paragraph (f)(2)(i)(G).

PHMSA response.

We agree. In this final rule, we are revising § 173.27(f)(2)(i)(G) to include ''ID8000'' as a material excepted from the Class 9 prohibition. In addition, for clarification, we are revising Table 3 to indicate that the note associated with Class 9 liquid material applies to both liquid and solid material.

C. Packaging Provisions for Metal Hydride Storage Systems

In the January 19, 2011 final rule, we added a new section, § 173.311, for packaging requirements for ''Metal hydride storage systems, UN3468'' used for the transport of hydrogen. Prior to the January 19, 2011 final rule, the HMR did not prescribe methods for the construction, qualification, marking, and requalification of these systems although we issued a number of special permits and competent authority approvals (CAA) to allow the manufacture and use of similar systems for the transport of hydrogen.

In a January 24, 2011 request for clarification, Ovonic Hydrogen Systems, LLC (OHS) expresses concern that the new § 173.311 requires transportable metal hydride storage systems to meet ISO Standard 16111:2008 (ISO 16111) which does not recognize the storage canisters manufactured by OHS under its currently-held CAA. Specifically, OHS manufactures storage canisters based on refillable aluminum cylinders designed, constructed, and tested to DOT 3AL specifications. Instead, ISO 16111 requires the use of aluminum cylinders constructed and tested to ISO 7866 specifications. Testing and marking requirements under ISO 7866 differ from testing and marking requirements for DOT 3AL specifications and OHS states its storage canisters are non-compliant as a result.

PHMSA response.

We disagree with OHS's assertion. The adoption of packaging requirements for metal hydride storage systems in § 173.311 does not invalidate any active special permits or CAAs authorizing the transportation of hydrogen in ''metal hydride storage canisters.'' When a special permit or CAA expires and is not renewed, systems must conform with the § 173.311 requirements for metal hydride storage systems to include the requirements of ISO 16111. Special permits issued by the Associate Administrator authorize the transportation of hazardous material and packaging within the United States only. International regulatory agencies may not recognize a special permit granted by PHMSA. However, metal hydride storage canisters designed, constructed, and otherwise conforming to requirements authorized under a CAA issued by PHMSA should be honored by other competent authorities worldwide as a valid alternative to ISO 16111.

IV. Section-by-Section Review of Changes

Part 172

Section 172.101

This section provides a hazardous materials table that identifies listed materials as hazardous material for purposes of transportation.

For the table entry ''Calcium hypochlorite, hydrated or Calcium hypochlorite, hydrated mixtures, with not less than 5.5 percent but not more than 16 percent water, UN2880,'' the PG III information was inadvertently removed. Under a final rule published December 29, 2006 (HM–215I, 71 FR 78596), we revised the PG II information to remove Special provision 166. However, the instruction to revise this entry did not include the PG III information and, therefore, it was inadvertently removed from the 49 CFR. In this document, we are revising the entry to add the PG III information to the entry to reflect the correct descriptions for this entry. This correction reads as a ''remove/add.''

For the table entry ''Tellurium compound, n.o.s., UN3284,'' effective October 1, 2010, we inadvertently added the term ''solid'' to the proper shipping name to read ''Tellurium compound, solid, n.o.s.'' in the January 19, 2011 final rule. In this document, we are revising the proper shipping name to remove the term ''solid.'' This correction reads as a ''remove/add.''

Section 172.315

This section prescribes the requirements for marking packages containing limited quantity material. Based on administrative appeals submitted in response to the January 19, 2011 final rule (HM–215K; 76 FR 3308), and numerous requests for clarification of the limited quantity marking requirements, we are revising § 172.315 to authorize continued use of the limited quantity marking (*i.e.,* square-

on-point and Identification Number) prescribed in § 172.315, in effect on October 1, 2010, for the same duration offered for continued use of the ORM–D–AIR and ORM–D markings, December 31, 2012 and December 31, 2013, respectively. For transportation by aircraft, the hazard class label (when applicable) and proper shipping name marking are still required. Additionally, we are revising § 172.315 to allow marking of a limited quantity package not intended for transportation by air with the limited quantity ''Y'' marking if the packaging is prepared in accordance with § 173.27(f) indicating it is suitable for transportation as a limited quantity package by aircraft. A ''Y'' marked package transported by a mode other than air indicates the package would be suitable for air transport if marked, labeled and accompanied by a shipping paper and is otherwise packaged in accordance with 3; 4 of the ICAO Technical Instructions as limited by subpart C of Part 171 and Part 175 of the HMR or § 173.27(f) and Part 175 of the HMR.

In the January 19 final rule, we erroneously adopted limited quantity marking requirements applicable to cargo transport units (CTU) containing packages of hazardous materials in only limited quantities. We erred by stating the marking must be applied to only one side and one end of the CTU when we should have required the marking on all four exterior sides of the CTU consistent with 3.4.5.5 of the IMDG Code. In this document, we are correcting that error in § 172.315. Finally, we are reorganizing the format of the language used in this section solely for editorial clarification.

Section 173.27

This section prescribes general requirements for the transportation of hazardous material by aircraft. Based on appeals and requests for clarification, in this document we are revising § 173.27(f). Specifically, we are revising paragraph (f)(2) and Table 3 in paragraph (f) by adding materials currently authorized elsewhere in the HMR and to provide additional clarification regarding those hazardous materials and articles eligible for transport by aircraft under the conditions prescribed in this paragraph. The authorized hazardous materials and articles added and referenced are as follows: (1) Class 1 (explosive) articles in accordance with § 173.63(b); (2) Class 7 (radioactive) material in accordance with applicable §§ 173.421 through 173.425; and (3) ''Aviation regulated liquid, n.o.s., UN3334,'' ''Aviation regulated solid, n.o.s., UN3335,'' and ''Consumer commodity, ID8000.'' As stated earlier in this preamble, although certain Class 1 and Class 7 materials are indicated as eligible for air transport in § 173.27(f), because they do not meet guiding principles established for limited quantities such indication is provided for informational purposes to aid readers in identifying the appropriate packaging and other provisions for such materials. For example, packages of Class 7 are not marked with the limited quantity ''Y'' mark prescribed in § 172.315 but rather as prescribed in 173.421 through 173.425, as appropriate.

Section 173.124

Section 173.124 defines a Class 4 material. For consistency with a revision adopted in the UN Model Regulations, PHMSA amended the definition of ''self-heating'' in § 173.124(b)(2) of the HMR in the January 19 final rule. In this document, PHMSA is correcting the typographical error in the heading of the definition.

Section 173.151

Section 173.151 prescribes exceptions for a Class 4 material. Paragraph (d) prescribes exceptions for Division 4.3 solid material of Packing Groups II and III. The HMR do not authorize limited quantity packages of such substances to be reclassified as ORM–D or to be renamed ''Consumer commodity.'' In the January 19, 2011 final rule, PHMSA inadvertently revised the third sentence of paragraph (d) to extend the additional exceptions for limited quantities and ORM in § 173.156 to Division 4.3 substances, when no such authorization prior to this rulemaking existed nor was it considered in this rulemaking due to the obvious risk to transportation safety. Therefore, in this final rule, PHMSA is removing the reference to § 173.156 in the third sentence of § 173.151(d).

Section 173.156

Section 173.156 provides additional exceptions for limited quantity and ORM packages. In the January 19, 2011 final rule, PHMSA unintentionally amended paragraph (b)(1) by requiring the marking of such packages in accordance with subpart D of part 172. In this final rule, PHMSA is amending § 173.156(b)(1) by removing the requirement to mark such packages. Because paragraph (b)(2) authorizes the common carriage of such packages, the marking requirements that existed prior to the January 19, 2011 final rule will remain as adopted.

Section 173.306

Section 173.306 prescribes requirements for limited quantity of compressed gases. In this document, we are revising certain paragraphs for clarification of requirements adopted in the final rule and to correct minor grammatical errors.

Section 173.311

This section specifies packaging instructions for hydrogen in metal hydride storage systems. The January 19, 2011 final rule incorrectly refers to ISO standards in § 178.71(f) that apply to the design and construction of UN refillable welded cylinders rather than § 178.71(m) for the design and construction of UN metal hydride storage systems. In this final rule, we are revising the section to correctly refer to § 178.71(m).

Part 175

Section 175.10

Section 175.10 prescribes the conditions under which a passenger, crew member, or an operator may carry hazardous materials aboard a passenger-carrying aircraft. In response to FCHEA's administrative appeal, in this final rule we are editorially revising the language in § 175.10(a)(19) for the carriage of fuel cell systems and fuel cell cartridges for consistency with the ICAO Technical Instructions. These revisions do not amend the fuel cell cartridge chemistries authorized in checked baggage as adopted in the January 19 final rule.

Section 175.75

Section 175.75 prescribes quantity limitations and cargo location requirements for hazardous materials transported by aircraft. In this document, we are revising for clarification the definition of ''Inaccessible'' in paragraph (d)(2) to mean any package that is loaded where a crew member or other authorized person cannot access, handle and, when size and weight permit, separate such packages from other cargo during flight, including a freight container in an accessible cargo compartment when packages are loaded in an inaccessible manner. This definition is consistent with the defined term ''Accessible'' and is revised for clarification only. Additionally, PHMSA is revising the heading in the third column of the paragraph (f) Quantity and Loading Table for clarity by adding the words ''per cargo compartment.'' Since issuing the January 19 final rule, we have fielded numerous inquiries regarding whether the limitation was now ''per

aircraft'' as opposed to ''per compartment.'' Additionally, we are correcting the error in Note a. of the table as published in the January 19 final rule. Notwithstanding the correction made to Note a. of the § 175.75(f) table, we want to emphasize the revisions made in this document to § 175.75 are for editorial clarification only.

Part 176

Section 176.905

This section specifies requirements for vessel transport of motor vehicles and equipment. In this final rule, we are revising paragraph (j) to refer to the correct section paragraph regarding items of equipment containing hazardous materials, specifically, § 173.220(f), that are integral components of a motor vehicle, engine or mechanical equipment.

V. Summary of Changes Regarding Limited Quantity Material and ORM–D

In an effort to clarify the amendments to the HMR associated with the transition from the domestic ORM–D system for transportation of limited quantity material to the international system, we offer the following:

Applicability of the ORM–D System

—Until December 31, 2013, shippers may continue to rename a limited quantity hazardous material as a ''Consumer commodity, ORM–D'' (*see* § 171.8), as authorized in the appropriate packaging exception for the material. Beginning January 1, 2014, limited quantity hazardous material will no longer be authorized the ''Consumer commodity'' proper shipping name except those eligible and prepared for shipment by aircraft in accordance with § 173.167 and using the newly adopted identification number ''ID8000.'' Such packages are eligible for transportation by all modes but must be marked with the limited quantity ''Y'' mark prescribed in § 172.315(b) indicating the package is suitable for air transportation.

—Until December 31, 2013, shippers may continue to reclass limited quantity hazardous material as ''Other Regulated Material'' otherwise known as ORM–D. Limited quantity material reclassed as ORM–D and transported by modes other than air may continue to be prepared and packaged in accordance with the appropriate packaging exceptions for the hazardous material (*e.g.,* § 173.150 for a Class 3 flammable liquid substance), and be transported in a package displaying the ORM–D marking. Until December 31, 2012, shippers may continue to ship ORM–D–AIR by aircraft. Until such time, ORM–D offered for shipment by aircraft may continue to be prepared and packaged in accordance with the requirements of § 173.27 in effect October 1, 2010, and transported in packages displaying the ORM–D–AIR marking.

—Until December 31, 2013, shippers may continue to display the limited quantity marking (*i.e.,* the square-on-point and identification number) on a package containing limited quantity material in accordance with § 172.315 in effect October 1, 2010.

Use of the New Limited Quantity Markings

—Beginning January 1, 2014, for modes of transportation other than air, shippers of limited quantity material must display the limited quantity marking adopted in § 172.315 under the January 19, 2011 final rule (*i.e.,* the square-on-point with top and bottom portion black and the center white). See illustration below.

—Beginning January 1, 2013, for transportation by air, shippers of limited quantity material must display the limited quantity ''Y'' marking adopted in § 172.315 under the January 19, 2011 final rule. See illustration below.

Clarification of Limited Quantity Marking Requirements

—A limited quantity package should not display both an ORM–D or ORM–D–AIR marking and one of the new limited quantity markings, as this may only serve to frustrate a shipment while in transportation. Such dual markings are only authorized during the transition period. Once the transition period expires (December 31, 2012 or December 31, 2013), the ORM–D or ORM–D–AIR marking must be covered, obliterated, or otherwise obstructed from view.

Limited quantity marking for packages not prepared for air transport.

Limited quantity marking for packages prepared for air transport.

TABLE OF POTENTIAL LIMITED QUANTITY PACKAGING SCENARIOS

Packaging scenario	Authorized? If authorized, when?	Mandatory? If mandatory, when?	Label(s) required?	Shipping papers required?	PSN and ID number marking required?	Notes
ORM–D Packaging						
Packaging marked ORM–D transported by modes other than air.	Yes, until December 31, 2013.	No	No	No. Unless a hazardous waste, hazardous substance or marine pollutant.	No	A shipper may voluntarily mark instead with the new limited quantity markings illustrated above. See also ''Limited Quantity Packaging'' below.
Packaging marked ORM–D transported by air.	No.					
Packaging marked ORM–D–AIR transported by modes other than air.	Yes, until, December 31, 2012.	No	No	No. Unless a hazardous waste, hazardous substance or marine pollutant.	No	A shipper may voluntarily mark instead with the new limited quantity markings illustrated above. See Limited Quantity Packaging below. A shipper marking a package with ORM–D–Air must ensure the packaging meets the requirements of § 173.27 effective October 1, 2010 even if the package is not transported by air.
Packaging marked ORM–D–AIR transported by air.	Yes, until, December 31, 2012.	No	No	Yes	Yes.	
Packaging marked ORM–D/ORM–D–AIR also marked with one of the new limited quantity markings.	For ORM–D: Yes For ORM–D–AIR: No.					The limited quantity ''Y'' mark indicates the package conforms to § 173.27(f) effective January 1, 2012. Although it may not be specifically prohibited, we recommend that packages not display both types of surface limited quantity markings to avoid confusion and frustration of shipment during the course of transportation.

TABLE OF POTENTIAL LIMITED QUANTITY PACKAGING SCENARIOS—Continued

Packaging scenario	Authorized? If authorized, when?	Mandatory? If mandatory, when?	Label(s) required?	Shipping papers required?	PSN and ID number marking required?	Notes
Limited Quantity Packaging						
Packaging marked with a square-on-point containing the ID # transported by modes other than air.	Yes, until, December 31, 2013.	No	No	No	See note	Proper shipping name not required to be marked when packaging is marked with a square-on-point containing the UN ID #.
Packaging marked with a square-on-point containing the UN ID # transported by air.	Yes, until, December 31, 2012.	No	Yes	Yes	Yes	Proper shipping name is required to be marked when packaging is marked with a square-on-point containing the UN ID #.
Packaging marked with a surface LQ marking transported by modes other than air.	Yes	Yes, beginning January 1, 2014.	No	No. Unless a hazardous waste, hazardous substance or marine pollutant.	No. Unless a hazardous waste or hazardous substance.	Voluntary compliance authorized as of January 1, 2011. Identification number not required.
Packaging marked with a standard LQ marking transported by air.	No.					
Packaging marked with an LQ "Y" marking transported by modes other than air.	Yes	No	No	No. Unless a hazardous waste, hazardous substance or marine pollutant.	No. Unless a hazardous waste or a hazardous substance.	A shipper marking a package with an LQ "Y" marking must ensure the packaging meets the requirements of § 173.27(f) effective January 1, 2011 even if the package is not transported by air. Identification number not required.
Packaging marked with an LQ "Y" marking transported by air.	Yes	Yes, beginning January 1, 2013.	Yes	Yes	Yes	Voluntary compliance authorized as of January 1, 2011.
Packaging marked with a square-on-point containing the UN ID # and also marked with one of the new limited quantity markings or any combination.	No.					

VI. Regulatory Analyses and Notices

A. Statutory/Legal Authority for This Rulemaking

This final rule is published under the following statutory authorities:

1. 49 U.S.C. 5103(b) authorizes the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce. This final rule responds to administrative appeals submitted in response to final rule HM–215K (January 19, 2011; 76 FR 3308), provides editorial clarification and corrects minor errors associated with the final rule.

2. 49 U.S.C. 5120(b) authorizes the Secretary of Transportation to ensure

that, to the extent practicable, regulations governing the transportation of hazardous materials in commerce are consistent with standards adopted by international authorities.

B. Executive Orders 12866 and 13563 and DOT Regulatory Policies and Procedures

This final rule is not a significant regulatory action under section 3(f) of Executive Order 12866 and was not reviewed by the Office of Management and Budget. This final rule is a non-significant rule under the Regulatory Policies and Procedures of the Department of Transportation [44 FR 11034]. Additionally, E.O. 13563 supplements and reaffirms E.O. 12866, stressing that, to the extent permitted by law, an agency rulemaking action must be based on benefits that justify its costs, impose the least burden, consider cumulative burdens, maximize benefits, use performance objectives, and assess available alternatives. The revisions adopted in this final rule do not alter the cost-benefit analysis and conclusions contained in the Regulatory Evaluation prepared for the January 19, 2011 final rule. The Regulatory Evaluation is available for review in the public docket for this rulemaking.

C. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 (''Federalism''), and the President's memorandum on ''Preemption'' published in the **Federal Register** on May 22, 2009 (74 FR 24693). This final rule preempts State, local and Indian tribe requirements but does not propose any regulation that has substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazardous material transportation law, 49 U.S.C. 5101–5128, contains an express preemption provision (49 U.S.C. 5125(b)) that preempts State, local, and Indian tribe requirements for certain subjects. The subjects are:

(1) The designation, description, and classification of hazardous materials;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;

(3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; and

(5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This final rule addresses all the covered subject items above and preempts State, local, and Indian tribe requirements not meeting the ''substantively the same'' standard. This final rule is necessary to incorporate revisions to the HMR based on administrative appeals submitted in response to the January 19, 2011 final rule, effective January 1, 2011. Federal hazardous materials transportation law provides at section 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the **Federal Register** the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. The effective date of Federal preemption is March 29, 2012.

D. Executive Order 13175

This final rule was analyzed in accordance with the principles and criteria contained in Executive Order 13175 (''Consultation and Coordination with Indian Tribal Governments''). Because this final rule does not have tribal implications, does not impose substantial direct compliance costs, and is required by statute, the funding and consultation requirements of Executive Order 13175 do not apply.

E. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities unless the agency determines that a rule is not expected to have a significant impact on a substantial number of small entities. The response to appeals and revisions contained in this final rule will have little or no negative effect on the regulated industry. Based on the assessment in the Regulatory Evaluation to the January 19, 2011 final rule, I hereby certify that, while this rule applies to a substantial number of small entities, there will not be a significant economic impact on those small entities. A detailed Regulatory Flexibility analysis is available for review in the docket.

F. Paperwork Reduction Act

This final rule imposes no new information collection requirements.

G. Regulatory Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

H. Unfunded Mandates Reform Act

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of $141.3 million or more to either State, local or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of the rule.

I. Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA) requires Federal agencies to consider the consequences of major Federal actions and prepare a detailed statement on actions significantly affecting the quality of the human environment. In the January 19, 2011 final rule, we developed an assessment to determine the effects of these revisions on the environment and whether a more comprehensive environmental impact statement may be required. Our findings conclude that there are no significant environmental impacts associated with this final rule. Consistency in the regulations for the transportation of hazardous materials aids in shippers' understanding of what is required and permits shippers to more easily comply with safety regulations and avoid the potential for environmental damage or contamination. For interested parties, an environmental assessment was included with the January 19, 2011 final rule available in the public docket. Additionally, we conclude that there are no significant environmental impacts associated with the amendments adopted in this document regarding the administrative appeals submitted in response to the January 19 final rule.

J. Privacy Act

Anyone is able to search the electronic form of any written communications and comments

received into any of our dockets by the name of the individual submitting the document (or signing the document, if submitted on behalf of an association, business, labor union, *etc.*). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477) or you may visit *http://www.dot.gov/privacy.html.*

K. International Trade Analysis

The Trade Agreements Act of 1979 (Pub. L. 96–39), as amended by the Uruguay Round Agreements Act (Pub. L. 103–465), prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. For purposes of these requirements, Federal agencies may participate in the establishment of international standards, so long as the standards have a legitimate domestic objective, such as providing for safety, and do not operate to exclude imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. PHMSA participates in the establishment of international standards in order to protect the safety of the American public, and we have assessed the effects of the final rule to ensure that it does not exclude imports that meet this objective. Accordingly, this rulemaking is consistent with PHMSA's obligations under the Trade Agreement Act, as amended.

List of Subjects

49 CFR Part 172

Education, Hazardous materials transportation, Hazardous waste, Labeling, Markings, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 173

Hazardous materials transportation, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

49 CFR Part 175

Air carriers, Hazardous materials transportation, Radioactive materials, Reporting and recordkeeping requirements.

49 CFR Part 176

Hazardous materials transportation, Maritime carriers, Radioactive materials, Reporting and recordkeeping requirements.

Issued in Washington, DC, on December 20, 2011, under authority delegated in 49 CFR part 1.

Cynthia L. Quarterman,

Administrator.

[FR Doc. 2011–33358 Filed 12–29–11; 8:45 am]

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SUBJECT INDEX

This subject index is designed to help you quickly locate information in the Hazardous Materials Compliance Manual. Because each chapter is numbered separately, subject categories are referenced by chapter and page number within that chapter.

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