

HM-215C

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## Part II

# Department of Transportation

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Research and Special Programs  
Administration

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Harmonization With the United Nations  
Recommendations, International Maritime  
Dangerous Goods Code, and International  
Civil Aviation Organization's Technical  
Instructions; Proposed Rule

**DEPARTMENT OF TRANSPORTATION****Research and Special Programs Administration****49 CFR Parts 171, 172, 173, 174, 175, 176, 177, 178 and 180****[Docket No. RSPA-98-4185 (HM-215C)]****RIN 2137-AD15****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:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** This notice consolidates Docket HM-215C and HM-217 ("Labeling Requirements for Poisonous Materials"). RSPA proposes to amend the Hazardous Materials Regulations (HMR) to maintain alignment with international standards by proposing to incorporate numerous changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations and vessel stowage requirements. In addition, RSPA proposes to make other amendments to the HMR, including the proposal to eliminate the "Keep Away From Food" label for poisonous materials in Division 6.1, Packing Group III. 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 proposed revisions are necessary to facilitate the transport of hazardous materials in international commerce.

**DATES:** Comments must be received by October 2, 1998.**ADDRESSES:** Address comments to the Dockets Unit, U.S. Department of Transportation, Room PL 401, 400 Seventh St., S.W., Washington, D.C. 20590-0001. Comments should identify the docket number RSPA-98-4185 (HM-215C) and be submitted in two copies. Persons wishing to receive confirmation of receipt of their comments should include a self-addressed stamped postcard. Comments may also be submitted by E-mail to [rules@rspa.dot.gov](mailto:rules@rspa.dot.gov). The Dockets Unit is located on the Plaza Level of the Nassif

Building at the U.S. Department of Transportation at the above address. Public dockets may be reviewed between the hours of 10:00 a.m. and 5:00 p.m., Monday through Friday, except on Federal holidays. Internet users may access all comments received by the U.S. Department of Transportation by using the Universal Resource Locator (URL) at <http://dms.dot.gov>. An electronic copy of the document may be downloaded using a modem and suitable communications software from the Government Printing Office's Electronic Bulletin Board Service at (202) 512-1661.

**FOR FURTHER INFORMATION CONTACT:** Bob Richard, Assistant International Standards Coordinator, telephone (202) 366-0656, or Joan McIntyre, Office of Hazardous Materials Standards, telephone (202) 366-8553. Research and Special Programs Administration, U.S. Department of Transportation, 400 Seventh Street, S.W., Washington, D.C. 20590-0001.

**SUPPLEMENTARY INFORMATION:****I. Introduction**

This NPRM consolidates two related rulemakings; Docket HM-215C. "Harmonization with the UN Recommendations, IMDG Code and ICAO Technical Instructions" and Docket HM-217, "Labeling Requirements for Poisonous Materials." By this action, Docket HM-217 is incorporated under Docket HM-215C and is terminated as a separate rulemaking action. This preamble discusses each rulemaking, including comments received to Docket HM-217.

**II. Background**

On December 21, 1990, the Research and Special Programs Administration (RSPA) published a final rule [Docket HM-181; 55 FR 52402] which comprehensively revised the Hazardous Materials Regulations (HMR), 49 CFR Parts 171 to 180, with respect to hazard communication, classification, and packaging requirements, based on the UN Recommendations. One 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.

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 and are distributed to nations throughout the world. 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. Offering, accepting and transporting hazardous materials by aircraft, in conformance with the ICAO Technical Instructions, and by motor vehicle either before or after being transported by aircraft, are authorized in § 171.11 (subject to certain conditions and limitations).

On December 29, 1994, RSPA issued a final rule [Docket HM-215A; 59 FR 67390] amending the HMR by incorporating changes to more fully align the HMR with the seventh and eighth revised editions of the UN Recommendations, Amendment 27 to the IMDG Code and the 1995-96 ICAO Technical Instructions. The final rule provided consistency with international air and sea transportation requirements which became effective January 1, 1995.

On May 6, 1997, RSPA issued a final rule [Docket HM-215B; 62 FR 24690] amending the HMR by incorporating changes to more fully align the HMR with the ninth revised edition of the UN Recommendations, Amendment 28 to the IMDG Code and the 1997-1998 ICAO Technical Instructions. The final rule provided consistency with international air and sea transportation requirements which became effective January 1, 1997.

This NPRM proposes changes to the HMR based on the tenth revised edition of the UN Recommendations, the 1999-2000 ICAO Technical Instructions, and Amendment 29 to the IMDG Code. In addition, petitions for rulemaking pertinent to harmonization with international standards and the facilitation of international transportation were considered. Proposed changes on the basis of these petitions are also incorporated in this NPRM. It is intended to more fully align the HMR with international air and sea transport requirements which become effective on January 1, 1999. Other proposed changes are based on feedback from the regulated industry and RSPA initiatives.

**Background on HM-217**

During its seventeenth session (December 7-16, 1992), UN Committee of Experts adopted amendments to be incorporated into the eighth revised edition of the UN Recommendations.

These amendments were incorporated in Amendment 27 of the IMDG Code and the 1995-1996 ICAO Technical Instructions effective January 1, 1995. Previously, the UN Recommendations specified two different labels to identify materials that meet the toxicity criteria for Division 6.1. A label incorporating a skull and crossbones symbol was used for any material which poses a high (Packing Group I) or medium (Packing Group II) danger. This label, which is referred to as the POISON label, is described in 49 CFR 172.430. For any material with a low toxicity danger (Packing Group III), a label incorporating an ear (stalk) of wheat with an "X" through it was prescribed. This label, which is referred to as the KEEP AWAY FROM FOOD label, is described in § 172.431.

Consistent with the decision of the UN Committee of Experts, the requirement for a KEEP AWAY FROM FOOD label was removed from the eighth revised edition of the UN Recommendations. As a result, packagings containing Division 6.1 Packing Group III materials offered for transport in international commerce must bear a POISON or TOXIC label (known as the toxic substances label in the UN Recommendations). Based on the amendments to the eighth revised edition of the UN Recommendations, the ICAO Technical Instructions, the IMDG Code, and national and regional regulations applicable in countries other than the United States (e.g., Mexico and European countries) now require the use of the POISON label for substances meeting the criteria for Division 6.1 Packing Group III. The UN Recommendations, the ICAO Technical Instructions and IMDG Code also replaced the term "poison" with the term "toxic." Docket HM-215A authorized the interchangeable use of either "toxic" or "poison" (or "poisonous") for domestic transportation to provide greater flexibility.

RSPA first requested public comment on the substitution of the POISON label for the KEEP AWAY FROM FOOD label on September 2, 1992, in Notice 92-8; International Standards on the Transport of Dangerous Goods; Request for Comments [57 FR 40247]. The advance notice of proposed rulemaking (ANPRM) was issued to assist in developing the United States' position at the seventeenth session of the UN Committee of Experts held on December 7-16, 1992, in Geneva, Switzerland. The primary concern expressed by RSPA in the September 2, 1992, ANPRM was that the KEEP AWAY FROM FOOD label and the optional text on the label were

misleading. RSPA was concerned that the label inaccurately implied that materials meeting Division 6.1 Packing Group 111 toxicity criteria pose a risk only of food contamination, and that the label did not communicate other hazards such as oral, dermal, and inhalation toxicity risks. In addition, RSPA noted that the label could best be characterized as a handling label rather than a hazard communication or warning label.

An in-depth explanation of the issues leading up to the question of whether to amend the UN Recommendations by requiring the POISON label in lieu of the KEEP AWAY FROM FOOD label was provided in the ANPRM. RSPA received comments from the Hazardous Materials Advisory Council (HMAC), the Association of American Railroads, the Chemical Specialties Manufacturers Association (CSMA), and a multi-national chemical company. All four commenters opposed the removal of the KEEP AWAY FROM FOOD label, citing the negative perception and operational constraints placed on packages bearing the POISON label or placard. HMAC and CSMA suggested adoption of a more appropriate pictogram to distinguish Division 6.1 Packing Group III materials from those Division 6.1 Packing Group I and II materials that pose a more significant danger.

In the final rule issued under Docket HM-215A, RSPA noted that the issue of removing the KEEP AWAY FROM FOOD label would be addressed under Docket HM-217.

In the ANPRM to Docket HM-217, [HM-217; 58 FR 59224], RSPA stated that if the HMR were amended to remove the KEEP AWAY FROM FOOD label, a POISON label would be required on packagings containing Division 6.1 Packing Group 111 materials. Consistent with these changes, a bulk packaging, freight container, unit load device, transport vehicle, or rail car containing a Division 6.1 Packing Group 111 material that is required to be placarded would be required to display POISON placards.

RSPA stated that if such changes were adopted, the HMR would not impose more severe operational requirements on Division 6.1 Packing Group III materials and current operational exceptions would be retained. Therefore, amendments to certain modal requirements would be necessary. For example, §§ 174.680, 175.630, 176.600 and 177.841 contain differing operational requirements for packages bearing a POISON label or a KEEP AWAY FROM FOOD label.

#### *Summary of Comments to HM-217*

In the ANPRM, RSPA requested comments in response to the following questions:

1. The STOW AWAY FROM FOODSTUFFS instruction on the Division 6.1 Packing Group III label is also an appropriate instruction for Division 6.1 Packing Group I and Packing Group II materials. Should this label be retained and required as an additional label for all Division 6.1 materials, independent of packing group?

2. Other than the current labeling provisions, which distinguish Division 6.1 Packing Group I and Packing Group II materials from Packing Group III materials, are there other effective means (e.g., a package marking or shipping paper notation) that may be used to facilitate compliance with the applicable operating and handling requirements?

3. If the KEEP AWAY FROM FOOD label is removed and the POISON label is required for Packing Groups I, II and III, should the Packing Group III label be altered in some manner so that packagings containing Division 6.1 Packing Group 111 materials can be distinguished from Packing Group I and II materials? If so, please provide examples. Should the use of such an altered label be required or optional?

4. What costs would be incurred by industry (e.g., operational and handling costs) if a POISON label and placard are required for packages containing Division 6.1. Packing Group III materials?

RSPA received nearly 40 comments to the ANPRM. Comments were received from chemical manufacturers and distributors, chemical trade associations, highway carriers, highway and rail carrier associations and the Department of Energy.

Most comments indicated that use of a POISON label for Division 6.1 Packing Group III materials greatly overstates the dangers of these materials. Several commenters claimed these materials pose a minimal safety risk in transportation. One commenter stated that end users would prefer products that do not bear a POISON label, because it would be very difficult for customers to understand that the addition of a POISON label on a package was not due to an increase in the material's hazard.

Commenters also cited higher motor carrier rates, special packaging required by some carriers, additional segregation in warehouses, and refusal by carriers to transport a package bearing a POISON label. The American Trucking

Associations, Inc. noted several areas of concern, including employee training to identify products, confusion caused by use of the POISON label, and disruption of present shipping and transport practices, particularly for less-than-truckload shipments. Several commenters urged RSPA to revisit this issue at the international level.

COSTHA, Inc. encouraged RSPA to maintain the status quo with regard to poison labeling for domestic shipments until both the UN and DOT have completed work with regard to globally harmonized cut-off values for defining acute oral toxicity of liquids and solids in Packing Group III.

HMAC maintained that without some method to distinguish between materials in Packing Group I and Packing Group II and those in Packing Group III, carrier or enforcement personnel will have no way to identify these materials even if stowage and segregation requirements are less stringent for Packing Group III materials. HMAC did not favor any delayed compliance or enforcement of this rule and added that a rulemaking action could not be fully developed without considering proposed food safety regulations and future revisions to toxicity levels.

Finally, if a POISON label requirement is adopted, many commenters requested a one to two-year transition period to implement the change. Commenters indicated the need for a sufficient length of time to re-train employees, deplete the inventory of existing packages labeled KEEP AWAY FROM FOOD, and deplete existing stocks of labels and placards.

Subsequent to the close of the ANPRM's comment period, RSPA received correspondence from U.S. companies engaged in the international transportation of Division 6.1, Packing Group III materials. International regulations now mandate the use of the POISON label for Division 6.1 Packing Group III materials. These companies currently must maintain two sets of inventory. One inventory is labeled POISON for international shipments and the other inventory is labeled KEEP AWAY FROM FOOD for domestic transportation. Alternatively, they may label all packages with the POISON label for either domestic or international transportation, as authorized in the final rule under Docket HM-2 15A. However, these commenters expressed concern that if a company chooses to maintain one set of inventory bearing the POISON label, more restrictive operational requirements are imposed, thereby, increasing costs.

Because RSPA believes that the POISON label better represents the toxicity hazard of materials that are toxic at the Packing Group III level, RSPA is proposing adoption of the POISON label for these materials. The KEEP AWAY FROM FOOD label could best be described as a handling label, not as a hazard warning label. The ear (stalk) of wheat with an "X" and the words "HARMFUL, STOW AWAY FROM FOODSTUFFS" imply that a material in a package bearing this label poses a limited hazard only to food. For a material assigned to Division 6.1, Packing Group III on the basis of acute oral toxicity, the label fails to clearly convey a message of danger through

direct oral ingestion. In addition to oral toxicity, materials are assigned to Division 6.1, Packing Group III on the basis of dermal toxicity and inhalation toxicity by vapors and by dusts and mists. The KEEP AWAY FROM FOOD label clearly fails to convey these skin absorption and inhalation hazards.

Adoption of the POISON label will maintain alignment with international standards and facilitate the transportation of Division 6.1 Packing Group III materials in international commerce. RSPA believes that concerns expressed by commenters can be alleviated through gradual implementation of the POISON label and placard requirements and maintenance of existing operational exceptions applicable to Division 6.1, Packing Group III materials.

In response to commenters' concerns indicating that "POISON" or "TOXIC" on a hazard warning label will overstate the hazard of these materials and will result in increased costs, RSPA is proposing to authorize use of the text "PG III" on the POISON hazard warning label as an option to "POISON" or "TOXIC." The placement of "PG III" on the label would be below the center of the label, consistent with the display of "POISON" or "TOXIC". Since provisions in international regulations permit the insertion of text indicating the nature of the risk, RSPA believes a POISON or TOXIC label displaying "PG III" as text is acceptable in international transportation. The following is an illustration of the modified label:

BILLING CODE 4910-60-P



Current operational requirements in 49 CFR Parts 174 through 177 for Division 6.1 Packing Group III materials would be retained for labels displaying "PC III" text. This would allow less restrictive stowage or separation from foodstuffs for these materials. However, if a package containing a Division 6.1 Packing Group III material bears a POISON or TOXIC label not displaying "PG III" text, the package would be subject to more stringent segregation requirements.

This proposal is responsive to those who favor harmonization with international requirements because a POISON label with text indicating risk and handling precautions is authorized under international labeling requirements for Division 6.1 Packing Group III materials. An extended transition period should minimize costs by permitting existing stocks of KEEP AWAY FROM FOOD labels and placards to be depleted, gradually reducing the inventory of packages bearing a KEEP AWAY FROM FOOD label, and allowing training in the new requirements to be accomplished as part of the required three-year recurrent training cycle. Maintaining flexible operational requirements for these materials will preclude the need for special packagings, carriers will be more amenable to accepting shipments, and additional truckload shipments will be avoided by requiring separation from foodstuffs rather than loading on separate vehicles.

### III. Overview of Proposed Changes in This NPRM

Proposed amendments to the HMR in this notice include:

- Addition of a new approval provision to allow use of recycled plastics material for the manufacturing of plastic drums and jerricans.
- Amendments to the Hazardous Materials Table (HMT) which would add, revise or remove certain proper shipping names, hazard classes, packing groups, special provisions including portable tank requirements, packaging authorizations, bulk packaging requirements, and passenger and cargo aircraft maximum quantity limitations.
- Addition, removal and revision of certain entries to the List of Marine Pollutants.
- Addition, removal and revision of new special provisions including one new special provision to deregulate cotton under specific conditions.
- Amendment of the n.o.s. and generic proper shipping names which are required to be supplemented with

technical names in association with the basic description.

- Incorporation of provisions authorizing the reconditioning of packagings other than metal drums.
- Incorporation of four new shipping descriptions to more clearly describe internal combustion engines and vehicles powered by flammable liquid and flammable gas fuels.
- Elimination of the KEEP AWAY FROM FOOD label for poisonous materials in Division 6.1, Packing Group III. Requiring the use of a POISON or TOXIC label on packagings containing materials meeting the toxicity criteria for poisonous materials in Division 6.1, Packing Group III. Allowing optional text on the POISON or TOXIC label to read "PG III."
- Amendment of periodic inspection requirements for portable tanks and IBCs which are intended for the transport of a single material.
- Addition of requirements for limited quantity packagings containing fragile inner packagings.
- Incorporation of an exception for certain shock absorbers, struts, gas springs and shocks and other automobile energy absorbing articles.
- Amendment of IBC repair, qualification and maintenance requirements.

### IV. Summary of Regulatory Changes by Section

#### Part 171

##### Section 171.7

RSPA proposes to update the incorporation by reference for four American Society of Mechanical Engineers (ASTM) standards, one American Pyrotechnics Association (APA) standard, one Department of Defense (DOD) standard, the ICAO Technical Instructions, the IMDG Code and the UN Recommendations. One new incorporation by reference would be added under the International Organization for Standardization (ISO).

"ASTM D 3278-95 Standard Test Methods for Flash Point of Liquids by Setaflash Scale Closed-Cup Apparatus" would be updated to the 1996 edition. "ASTM D56-93 Standard Test Method for Flash Point by Tag Closed Tester," "ASTM D93-94 Standard Test Method for Flash Point by Pensky-Martens Closed Cup Tester" and "ASTM D3828-93 Standard Test Method for Flash Point by Small Scale Closed Tester" would be updated to the 1997 editions. The updates would reflect the latest revisions to the standards which are used for the classification of Class 3 flammable liquids in §§ 173.120 and

173.121. "APA Standard 87-1, Standard for Construction and Approval for Transportation of Fireworks, Novelties, and Theatrical Pyrotechnics" would be updated to the January 23, 1998 version which would bring the standards up-to-date with current industry practices. "DOD TB 700-2; NAVSEAINST 8020.8; AFTO 11A-1-47; DLAR 8220.1: Explosives Hazard Classification Procedure" would be updated to the January 1998 edition. RSPA has reviewed the updated standards and has concluded that no major technical amendments have been incorporated into these standards.

References to the ICAO Technical Instructions would be updated to the 1999-2000 edition, the IMDG Code would be updated to Amendment 29 and the UN Recommendations would be updated to the tenth revised edition.

Finally, consistent with the proposed addition of a new special provision for the entry "Cotton," NA1365, "ISO 8115, Cotton Bales-Dimensions and Density, 1986 Edition" would be added to the table of material incorporated by reference. (See proposed amendments to the Hazardous Materials Table.)

##### Section 171.11

Paragraph (d) (4) (ii) requires a hazardous material being transported in accordance with the ICAO Technical Instructions to include on the shipping papers an indication that the shipment is being made in accordance with § 171.11 or include the letters "ICAO." RSPA is proposing to change this requirement from a mandatory requirement to a recommendation by changing the word "must" to "should" each place it appears in paragraph (d) (4) (ii). Paragraph (d) (14) would be revised for consistency with § 173.306(a) (1) which allows an exception from the HMR for certain aerosols in containers of not more than four fluid ounces.

##### Section 171.12

Paragraph (b) (15) would be revised to include references to § 171.12a(b) (13). Paragraph (b) (17) would be revised for consistency with § 173.306(a) (1) which allows an exception from the HMR for certain aerosols in containers of not more than four fluid ounces.

##### Section 171.12a

Paragraph (b) (13) would be revised to provide reciprocity for certain Canadian specification cylinders to be transported within the United States. Canada's cylinder specifications contained in the Transportation of Dangerous Goods (TDG) Regulations and prior to that in the Canadian Transport Commission

Regulations for the Transportation of Dangerous Commodities by Rail (CTC) were identical to the DOT specifications. Only after the implementation of the DOT's foreign approval program and Transport Canada's (TC) recent changes to implement standards harmonizing the international regulations were there any restrictions placed on the free movement of CTC/TC and US DOT specification cylinders across the border. RSPA has reached an agreement with Transport Canada to establish a program for cylinders manufactured and certified in accordance with the TDG regulations to be qualified for the transportation of hazardous materials in the United States. These changes would facilitate the movement of Canadian and domestic cylinders between the United States and Canada. Transport Canada has agreed to make similar amendments in the TDG Regulations.

Paragraph (b) (16) would be revised for consistency with § 173.306(a) (1) which allows an exception from the HMR for certain aerosols in containers of not more than four fluid ounces.

#### Section 171.14

Paragraph (f) would be revised to provide a delayed implementation date for amendments adopted in the final rule. The effective date of the final rule would be October 1, 1998. However, RSPA would authorize an immediate voluntary compliance date to allow shippers to prepare their international shipments in accordance with the new ICAO, IMDG Code and HMR provisions. RSPA would also authorize a delayed mandatory compliance with the new requirements until October 1, 1999. This delay would be comparable to the transition provisions provided in the final rule under Docket HM-215B and offers a sufficient phase-in period to implement new provisions and deplete current stocks of shipping papers, labels, placards and containers affected by the new requirements. In addition, paragraph (d)(2) would permit intermixing of old and new hazard communication requirements until October 1, 1999. Based on its own initiative and comments provided in petitions, RSPA is also proposing an extended delayed implementation period for use of the POISON/TOXIC label for Division 6.1, Packing Group III materials and allowing continued use of the KEEP AWAY FROM FOODSTUFFS label until October 1, 2003.

## Part 172

### Section 172.101

In RSPA's ongoing effort to improve and simplify the HMR, a new symbol, the asterisk (\*), would be added to § 172.101(b). The new symbol would denote the n.o.s. and generic proper shipping names which are required to be supplemented with the technical name of the hazardous material in parentheses and in association with the basic description. Currently, these proper shipping names are listed in § 172.203(k) (3). As a result of the proposed change, paragraph (k)(3) would be removed. In addition, RSPA is proposing to add and remove certain proper shipping names concerning this requirement for consistency with the tenth revised edition of the UN Recommendations. (See § 172.203 preamble discussion.)

#### The Hazardous Materials Table (HMT)

Proposed amendments to the HMT for the purpose of harmonizing with the tenth revised edition of the UN Recommendations would include the following:

The "+" would be added to Column 1 to fix the proper shipping name, hazard class and packing group for the entries, "Aminophenols (*o*;*m*;*p*-)." "Chlorodinitrobenzenes," "Dichloroanilines, liquid," "Dichloroanilines, solid," "o-Dichlorobenzene," "N,N-Diethylaniline," "Epichlorohydrin," "Nitroanilines (*o*;*m*;*p*-)." "Nitroanisole," "Nitrobenzene," "Nitrophenols (*o*;*m*;*p*-)." "Phenetidines," "Phenylenediamines (*o*;*m*;*p*-)." "Toluene diisocyanate," "Toluidines, liquid" and "Toluidines, solid." This proposed action would align the HMR with the UN Recommendations which uses Special Provision 279 to indicate materials which are classified on the basis of human experience.

Various other changes to the HMT include the following:

A number of hazardous materials proper shipping names would be revised, including the deletion of the word "commercial" from the entries, "Charges, shaped, commercial, without detonator," (UN 0059, 0439, 0440 and 0441), the revision of the entry "Amyl alcohols" to "Pentanol" and the revision of the entry "Dithiocarbamate pesticides, liquid, toxic" to "Thiocarbamate pesticide, liquid, toxic."

For entries such as "Aluminum alkyls" and "Sodium nitrite," the subsidiary risks would be revised.

The entries, "Aviation regulated liquid, n.o.s." and "Aviation regulated solid, n.o.s." would be added for alignment with the ICAO Technical Instructions and the UN Recommendations.

The entry "Wheel chair, electric" would be removed as an acceptable proper shipping name. "Wheel chair, electric" would only be maintained as a "see entry" for purposes of referring users of the HMR to the proper shipping name "Battery powered equipment."

For materials such as "Chlorosilanes, corrosive, n.o.s." Column 7 would be revised to reflect the alignment of the portable tank assignments with those in the UN Recommendations.

For the entry, "Plastic molding compounds in dough, sheet or extruded rope form evolving flammable vapor." to correct an error, the non-bulk authorization reference would be amended by revising the reference to read "221." In addition, § 173.221 would be amended to authorize bulk packagings. The packaging authorization for the entry, "Polymeric beads, expandable, evolving flammable vapor," would also be revised to read "221." (See § 173.221 for additional discussion.)

For the entries, "Batteries, wet, filled with acid, electric storage" and "Batteries, wet, filled with alkali, electric storage," RSPA proposes to increase the passenger aircraft quantity limitation from 25 kg gross mass to 30 kg gross mass. This proposed change is consistent with the amendments to the 1999-2000 edition of the ICAO Technical Instructions.

RSPA received a petition (P-1 31 6), requesting that under certain conditions baled cotton which does not meet the criteria of any hazard class should be excepted from the requirements of the HMR. In response to this petition, RSPA is proposing to add a new special provision for NA1365, "Cotton" (dry), indicating that it is not subject to the requirements of the HMR when it is baled in accordance with ISO 8115, "Cotton Bales-Dimensions and Density" to a density of at least 360 kg/m<sup>3</sup> (22.41lb/ft<sup>3</sup>) and it is transported in a freight container or closed transport vehicle. This is consistent with a decision taken by the International Maritime Organization and a subsequent competent authority approval issued by RSPA.

Based on its own initiative, RSPA is proposing that the entry, "Dangerous goods in machinery or Dangerous goods in apparatus" be included in the HMT. This 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. RSPA believes this entry is useful for transport by all modes of transportation and provides a more practical means of describing machinery or apparatus containing small quantities of hazardous materials when the machinery or apparatus is not specifically listed in the HMT. Although this shipping description has not been adopted by the UN Committee of Experts on the Transport of Dangerous Goods, RSPA expects that the Committee will adopt this entry and assign it a new UN number in the eleventh revised edition of the UN Recommendations. RSPA will include the UN number assignment in the final rule if it is assigned after publication of this NPRM. In this NPRM, RSPA is proposing the assignment of a North American (NA8001) identification number in the interim.

For purposes of the Government Printing Office's typesetting procedures, readers should be aware that for certain entries in the HMT, such as those with revised proper shipping names, the change may appear as a removal and addition, as opposed to a revision of the regulatory text in the Column (2) changes. Readers should review all changes appearing in the § 172.101 regulatory text for a complete view of the proposed changes.

#### Appendix B to § 172.101

A number of materials would be added, removed or amended in the HMR's List of Marine Pollutants. The proposed amendments are consistent with the marine pollutants identified in Amendment 29 to the IMDG Code. Included is the proposed removal of "Nitrates, inorganic, n.o.s." which is based on a petition (P-1 311).

#### Section 172.102

Eleven new special provisions would be added and one removed for consistency with the tenth revised edition of the UN Recommendations; three obsolete special provisions would be removed; and two would be editorially revised as follows:

Special Provision 43 would be revised by adding an exception for certain nitrocellulose membrane filters. The exception is consistent with the 1999–2000 edition of the ICAO Technical Instructions.

Special Provision 125 would be revised to correct an editorial error for the percentages of phlegmatizers in mixtures.

A new special provision 129 would be assigned to the proposed new entry,

"Nitroglycerin mixture, desensitized, liquid, flammable, n.o.s. *with not more than 30% nitroglycerin, by mass.*" to require that the material's classification, transportation, packing group assignment and packaging must be approved by the Associate Administrator for Hazardous Materials Safety.

A new special provision 130 would be added for the entry, "*Battery, dry, nut subject to the requirements of this subchapter*" to identify conditions that must be met in order to be excepted from the HMR.

A new special provision 131 would be assigned to the proposed new entry, "Flammable solid, oxidizing, n.o.s.," (Packing Groups II and III), to prohibit the material from being offered for transportation unless approved by, the Associate Administrator for Hazardous Materials Safety.

A new special provision 132 would be added for the proper shipping name, "Ammonium nitrate fertilizers," UN207 1. The special provision would allow this material to be excepted from the requirements of the HMR provided a UN trough test (Section 38, UN Manual of Test and Criteria) demonstrates that the material is not liable to self-sustaining decomposition, and that the material does not contain an excess of nitrate greater than 10% by mass. This material is currently only regulated for transportation by air and water modes.

A new special provision 133 would be added for the proposed new entry, "Air bag inflators, compressed gas *or* Air bag modules, compressed gas *or* Seat-belt pretensioners, compressed gas," to clarify which articles should be transported under these shipping descriptions. The special provision would also provide conditions for packaging and design of these articles.

A new special provision 134 would be added for the entry "Battery-powered vehicle *or* Battery-powered equipment" to identify the entry as being used for battery-powered equipment or vehicles.

A new special provision 135 would be added for the proposed new entries, "Engines, internal combustion, flammable gas powered," "Engines, internal combustion, flammable liquid powered," "Vehicle, flammable gas powered," and "Vehicle, flammable liquid powered" to indicate the appropriate shipping description to be used when internal combustion engines are installed in a vehicle.

A new special provision 136 would be added for the proposed new entry, "Dangerous goods in machinery *or* Dangerous goods in apparatus." The special provision clarifies the

restrictions and exceptions for transporting hazardous materials under the new entry.

A new special provision 137 would be added for the entry, "Cotton," NA1365. See discussion under The Hazardous Materials Table (HMT).

A new special provision 138 would be added for the entry, "Lead compounds, soluble, n.o.s." This special provision would clarify the definition for soluble lead compounds.

A new special provision A35 would be added for the proposed new entries, "Aviation regulated liquid, n.o.s." and "Aviation regulated solid, n.o.s.," to clarify that the proper shipping names include any substance not meeting any of the other hazard classes, but which has certain properties that could cause extreme annoyance or discomfort in the event of spillage or leakage aboard aircraft to crew members so as to prevent their performance of duties.

Special Provision 17 applies to the entry, "Hydrogen peroxide, aqueous solutions *with not less than 8 percent but less than 20 percent hydrogen peroxide (stabilized as necessary).*" Special Provision 17 would be deleted because the information it contains is duplicative with the italicized portion of the proper shipping name.

Special Provision 20 would be removed because it no longer is used for any entries in the HMT.

Special Provision 104 would be removed for consistency with the UN Recommendations.

Based on a comment received by RSPA, Special Provision B1 01 would be editorially revised to clarify that when intermediate bulk containers are used, only those constructed of metal are authorized. RSPA agrees with the commenter that the present wording is confusing and can be interpreted to mean that metal IBCs are the only authorized packagings.

Special Provision N9 applies to the entry, "Cotton waste, oily," UN 1364. Special Provision N9 would be deleted consistent with the deletion of Special Provision 34 in the tenth revised edition of the UN Recommendations.

#### Section 172.203

In § 172.203, paragraph (k) would be revised to reflect the proposed means of identifying n.o.s. and generic names (see § 172.10 1) and paragraph (k) (3) would be removed and paragraph (k)(4) would be redesignated (k)(3). This proposed action would be a result of the proposed amendment to § 172.101 (b) which would add a new symbol (the asterisk) to the HMT for the assignment to n.o.s. and generic proper shipping names requiring technical names.



Approximately 19 new proper shipping names are being proposed, in this NPRM, to be required to be supplemented with a technical name. These additions are consistent with the UN Recommendations. There are approximately 99 proper shipping names currently required to be supplemented with a technical name in the UN Recommendations that, in the opinion of RSPA, do not warrant requiring a supplementary technical name. The majority of these are pesticides with proper shipping names which RSPA believes are sufficiently descriptive. RSPA believes that requiring these proper shipping names to be supplemented with technical names adds minimal value for emergency response purposes while introducing an unwarranted burden on the shipper. The proposed actions would simplify the use and reduce the volume of the HMT, as well as align it with international requirements. (See preamble discussion under § 172.10 1.)

Sections 172.400, 172.400a, 172.405, 172.407

RSPA is proposing revisions to the labeling requirements for Division 6.1 Packing Group III materials. RSPA issued an ANPRM on November 8, 1993, under Docket HM-217, [58 FR 59224] addressing changes to Division 6.1, Packing Group III labeling requirements consistent with an amendment incorporated in the eighth revised edition of the UN Recommendations. Because RSPA believes that the POISON label better represents the toxicity hazard of materials that are toxic at the Packing Group III level, RSPA is proposing adoption of the POISON label requirement for these materials. The KEEP AWAY FROM FOOD label could best be described as a handling label, not as a hazard warning label. The ear (stalk) of wheat with an "X" and the words "HARMFUL, STOW AWAY FROM FOODSTUFFS" imply that a material in a package bearing this label poses a limited hazard only to food. For a material assigned to Division 6.1, Packing Group III on the basis of acute oral toxicity, the label fails to clearly convey a message of danger through direct oral ingestion. Paragraph (f) (10) in § 172.405 would be revised to reflect that a label for a Division 6.1 Packing Group III material may be modified to display the text "PG 111" below the mid-line of the label, instead of "TOXIC" ("POISON"). Section 172.407 is revised to add the lettering size requirements for SPONTANEOUSLY COMBUSTIBLE and DANGEROUS WHEN WET labels.

#### Section 172.431

This section would be removed and reserved, thereby deleting the specifications for the KEEP AWAY FROM FOOD label and placard.

#### Section 172.504

Consistent with the proposed changes in §§ 172.400, 172.400a, 172.405 and 172.407, in the paragraph (e) Table 2, the entry for Division 6.1, Packing Group III would be removed and the entry for Division 6.1, Packing Group I or II, other than Zone A or B inhalation hazard would be revised. Paragraph (f) (10) would be revised to reflect that a placard for Division 6.1, PG III material may be modified to display the text "PG 111" below the mid-line of the placard.

#### Section 172.553

This section would be removed and reserved, in line with § 172.431 to delete the specifications for the KEEP AWAY FROM FOOD label and placard.

#### Part 173

##### Section 173.1

For uniformity with other references in the HMR, the reference to the "Recommendations of the United Nations Committee of Experts on the Transport of Dangerous Goods" in paragraph (d) is revised to read "UN Recommendations."

##### Section 173.2a

The § 173.2a, paragraph (b) Precedence of Hazard Table would be revised to align it with the UN Recommendations. Currently, there are two differences between the UN Precedence of Hazard Table and the HMR Precedence of Hazard Table. The differences involve, (1) the combination of a Division 4.3, Packing Group II material and a Class 8, Packing Group II material, and (2) a Division 5.1, Packing Group II material and a Class 8, Packing Group II material. Consistent with the UN Recommendations, RSPA proposes to revise these entries by having the Division 4.3, Packing Group II hazard and the Division 5.1, Packing Group II hazards take precedence over the Class 8 Packing Group II hazard.

##### Section 173.25

Paragraph (b) would be revised to authorize shrink-wrapped or stretch-wrapped trays as outer packagings only if the inner packagings are not fragile, liable to break or be easily punctured (such as those made of glass, porcelain, stoneware or certain plastics). On the basis of this provision, RSPA is proposing to remove the requirement for these packages to meet the PG III

performance standards. These proposed changes would be consistent with amendments adopted in the ninth and tenth revised editions of the UN Recommendations.

##### Section 173.28

Paragraph (c)(2) would be revised and a new paragraph (c)(5) would be added to authorize the reconditioning of packagings other than metal drums. This revision is consistent with amendments adopted in the tenth revised edition of the UN Recommendations.

##### Section 173.29

In § 173.29, paragraph (b)(2)(iv)(B) would be revised to clarify that a non-flammable gas other than anhydrous ammonia, no longer meeting the defining criteria because of reduced pressure, is not subject to the HMR. Currently, § 173.29 references an absolute pressure less than 276 kPa (40 psia); at 21 °C (70 °F). The absolute pressure would be corrected to read "less than 280 kPa (40.6 psia) at 20 °C (68 °F)" for consistency with the absolute pressure reference in § 173.115(b).

##### Section 173.32b

Consistent with an amendment adopted in the tenth revised edition of the UN Recommendations, a new sentence would be added to paragraph (b)(1) to allow for the internal inspection to be waived or substituted by other test methods or inspection procedures for tanks transporting a single substance (dedicated service), subject to approval by the Associate Administrator for Hazardous Materials Safety.

##### Section 173.32c

Paragraph (j) would be revised for consistency with the UN Recommendations to allow IM portable tanks which are filled to less than 20% of their capacity, to be offered for transportation. Currently, the HMR prohibit any portable tank or tank compartment having a volume greater than 7,500 liters, which is filled to less than 80% of capacity, from being offered for transportation.

##### Section 173.35

Consistent with the UN Recommendations, the prohibition of the reuse of fiberboard, wooden and some flexible IBCs would be eliminated. However, based on RSPA's own safety concerns, RSPA is proposing to maintain the reuse restriction for multiwall paper flexible IBCs (13M1 and 13M2).

### Section 173.56

In paragraphs (b)(Z)(i) and (b)(3)(i), the reference to a DOD incorporation by reference document would be updated by removing an outdated edition date. A corresponding change with the updated edition date is proposed under § 171.7.

### Section 173.59

Consistent with amendments adopted in the tenth revised edition of the UN Recommendations and consequential proposed amendments to the HMT, the word "commercial" would be deleted from the proper shipping names, "Charges, shaped, commercial, *without detonator*." in this section. RSPA believes that the word "commercial" does not add information which could be useful to emergency responders.

### Section 173.121

Paragraph (b) would be amended to align it with the UN Recommendations based on a decision taken by the UN Committee of Experts at its nineteenth session. Paragraph (b) provides an exception for viscous flammable liquids such as paints, enamels, varnishes, adhesives and polishes with a flash point of less than 23 °C to be classified as PG III materials, provided the material does not contain any substance with a primary or subsidiary risk of Division 6.1 or Class 8. In the ninth revised edition, the UN Committee of Experts included an exception which authorized mixtures containing not more than 5% of substances in Packing Group I or Packing Group II of Division 6.1 or Class 8, or not more than 5% of substances in Packing Group I of Class 3 requiring a Division 6.1 or Class 8 subsidiary label to be reclassified in PC III in the Recommendations. This exception was not adopted by ICAO or IMO based in part on proposals submitted by RSPA. RSPA believes the proposed amendment enhances safety while simplifying the classification provisions in § 173.3 21.

### Section 173.159

In § 173.159(g)(2), RSPA proposes to authorize additional packagings for electrolyte, acid or alkaline corrosive battery fluid included with storage batteries and filling kits. RSPA received a petition (P-1 313) which stated that the corrosive attack to steel is slight and that steel drums and steel boxes have a structural integrity that exceeds the presently authorized plywood and wooden boxes. RSPA agrees and proposes to revise paragraph (g) (2) to reflect the authorization of steel drums and steel boxes by authorizing strong outer packagings which conform to military specifications, as opposed to

only wooden boxes. RSPA is interested in comments or proposals for simplifying the packaging requirements in § 173.159 and the need to allow additional packagings such as plastic packagings.

### Section 173.162

In § 173.162, the packaging requirements for gallium would be revised by affording shippers more flexibility in packaging alternatives while providing an adequate level of safety. The revision would be consistent with the IMDG Code which currently includes more packaging alternatives for transporting gallium than does the HMR.

### Section 173.164

In § 173.164, in paragraph (a), the limitation of not more than 3.5 kg (7.7 pounds) capacity for quicksilver flasks would be replaced with 35 kg (77 pounds). This action would correct an editorial error and bring the quantity in line with ICAO. Paragraph (c) would also be revised to correct an editorial error by removing the 100 mg quantity limitation for mercury in manufactured articles or apparatuses. Paragraph (c) applies to exceptions from specifications packaging requirements.

### Section 173.196

In § 173.196, paragraph (a) (iii) indicates that absorbent material must be placed between the primary receptacle and the secondary packaging. Consistent with a decision taken by the ICAO Dangerous Goods Panel, absorbent material is only necessary for liquid materials. On this basis, in § 173.196(a) (iii), the words "When the primary receptacle contains liquids" would be inserted in the first sentence before "An absorbent material".

### Section 173.220

RSPA is proposing amendments to § 173.220 to include requirements for both liquid and gas fueled vehicles consistent with amendments adopted by ICAO in Packing Instruction 900 and the four new shipping descriptions proposed for incorporation in the HMT for internal combustion engines and vehicles. For editorial purposes and clarity, specific requirements in § 173.306 relevant to gas powered vehicles and hazardous components installed in vehicles are proposed to be consolidated in this section.

### Section 173.221

In response to two petitions (P-1 344 and P-1353), RSPA is proposing to revise the packaging requirements for "Polymeric beads, *expandable, evolving*

*flammable vapor*." and "Plastic molding compound *in dough*, sheet or *extruded rope form evolving flammable vapor*." while consolidating the non-bulk and bulk packaging requirements in § 173.22 1. RSPA agrees with the petitioners that the packaging requirements for these materials are overly restrictive and that bulk packagings should be authorized for "Plastic molding compound *in dough*, sheet or *extruded rope form evolving flammable vapor*."

### Section 173.222

RSPA is proposing to remove § 173.222 and replace it with requirements for a proposed new entry. Since § 175.10 applies to wheelchairs transported as checked baggage and § 173.220 applies to wheelchairs transported in commerce, RSPA believes § 173.222 is not necessary. This proposed amendment is consistent with the proposal to remove the description "Wheel chair, electric" in the HMT as an acceptable proper shipping name and include it only for purposes of referencing users of the HMR to "Battery powered equipment," UN31 71. "Battery powered equipment" is the proper shipping name used in the ICAO Technical Instructions, IMDG Code and UN Recommendations for wheel chair, electric.

Section 173.222 would be replaced with requirements applicable to the proposed new entry, "Dangerous goods in machinery or Dangerous Goods in Apparatus." The proposed requirements would be consistent with those currently in the ICAO Technical Instructions.

### Section 173.225

In paragraph (b) a new organic peroxide formulation would be added to the Organic Peroxides table consistent with the tenth revised edition of the UN Recommendations. Various entries would be corrected due to typographical errors. In addition, based on comments received by RSPA, the word "product" would be inserted before the word "evaluation" in paragraph (c) (2). This proposed change would clarify that the exception for samples applies for purposes of shipping products for evaluation and not only for hazard classification purposes. In addition, various changes would be made due to printing errors.

### Section 173.243

RSPA proposes to add a new paragraph (e)(3) to authorize a Class 8 subsidiary hazard, PG III to be packaged in accordance with § 173.242. In the IMDG Code, certain dual hazard

materials with a subsidiary hazard of Class 8, PG III are permitted in IBCs, consistent with those specified in § 173.242. Section 173.242(e) authorizes certain dual hazard materials with subsidiary risks of Class 3, with a flash point greater than 38° C, and Division 6.1, PG III to be packaged in intermediate bulk containers specified in § 173.242. However, this exception is not applied to dual hazard materials with subsidiary hazards of Class 8, PG III. RSPA has issued a number of competent authority approvals consistent with the intermediate bulk container assignments for these materials in the IMDG Code, and on this basis, proposes to incorporate this allowance into the HMR.

#### Section 173.301

RSPA is proposing to amend paragraph (i) to clarify that non-DOT specification cylinders which are being imported into or exported from the United States or passing through the United States, in the course of being shipped between places outside the United States, may be offered and accepted for transportation and transported by motor vehicle within a single port area (including contiguous harbors) when packaged, marked, classed, labeled, stowed and segregated in accordance with the IMDG Code. This exception is not readily apparent in § 173.301 (i) and this results in numerous inquiries by shippers and users of the HMR.

#### Section 173.306

A new paragraph (f)(4) would be added to except certain accumulators intended to function as automotive shock absorbers, struts, energy absorbing devices or gas springs from the requirements of the HMR if they meet certain provisions. This amendment would be consistent with Special Provision 283 in the tenth revised edition of the UN Recommendations as modified in a petition from the American Automobile Manufacturers Association, (P-1 335).

Paragraphs (d) (1), (d) (2), (d) (3) and (d)(4) would be moved to the proposed revised § 173.220.

#### Part 174

##### Section 174.81

The paragraph (f) Compatibility Table for Class 1 (Explosive) Materials would be revised to allow Compatibility Group G to be loaded and transported with Compatibility Groups C, D and E under certain conditions. This allowance would be consistent with the § 176.144(a) Table for Authorized Mixed

Stowage for Explosives aboard vessels and with the IMDG Code. RSPA would revise the § 177.848 Compatibility Table to reflect the same allowance.

##### Section 174.680

Paragraph (b) would be revised to authorize separation in the same car, rather than segregation in different cars, of Division 6.1 Packing Group III materials from foodstuffs. The reference to the KEEP AWAY FROM FOOD label would be removed and replaced by a reference to a modified POISON label displaying "PC III" text.

#### Part 175

##### Section 175.630

Paragraph (a) would be revised by removing the reference to the KEEP AWAY FROM FOOD label.

#### Part 176

##### Section 176.76

A new paragraph (i) would be added, consistent with the Amendment 29 of the IMDG Code, to require flammable gases or liquids having a flashpoint of 23° C or less to be stowed away from possible sources of ignition.

##### Section 176.83

Paragraphs (a) (1), (a) (3), (a) (8) would be revised and a new paragraph (a) (10) would be added to clarify segregation requirements aboard vessels. In addition, the § 176.83(g) Segregation Table would be revised for the segregation requirement "Away From" by revising "No restriction" for "Open versus open-On deck" to read "At least 3 meters." These changes are consistent with Amendment 29 of the IMDG Code.

##### Section 176.600

This section would be revised to specify that packages containing a Division 6.1 Packing Group III material and bearing a modified POISON label displaying the text "PG III," instead of the text "POISON" or "TOXIC."

#### Part 177

##### Section 177.841

Paragraph (e)(3) would be revised to specify requirements for separating Division 6.1 Packing Group III materials from foodstuffs, consistent with provisions in § 177.848. A Division 6.1 Packing Group III material bearing either a primary or subsidiary POISON hazard warning label with text displaying "PG III" could be transported on the same vehicle as foodstuffs if separated to prevent commingling. This will allow less restrictive segregation requirements for a package bearing a label indicating "PG III" which contains

a material meeting only Division 6.1 Packing Group III toxicity criteria.

##### Section 177.848.

The paragraph (f) Compatibility Table for Class 1 (Explosive) Materials would be revised to allow Compatibility Group C to be loaded and transported with Compatibility Groups C, D and E under certain conditions. This allowance would be consistent with the § 176.144(a) Table for Authorized Mixed Stowage for Explosives aboard vessels and with the IMDG Code. RSPA would revise the § 174.81 Compatibility Table to reflect the same allowance.

#### Part 178

##### Section 178.270-3.

The reference to ISO 82-1974(E) Steels-Tensile Testing would be revised to correct a printing error.

##### Section 178.509.

Paragraph (b) would be amended to authorize the use of recycled plastic materials of known origin and characteristics for the manufacture of UN specification plastic drums and jerricans when approved by the Associate Administrator for Hazardous Materials Safety. RSPA believes that use of recycled plastics should only be allowed under an approval process until further experience and data is gathered to support introduction of specific provisions for its use into the HMR.

##### Section 178.703.

Under Docket HM-215B (62 FR 24743), RSPA added a requirement to § 178.703(b) (6) (ii) which states, "Where the outer casing of a composite intermediate bulk container can be dismantled, each of the detachable parts must be marked with the month and year of manufacture and name or symbol of the manufacturer." This addition was adopted consistent with changes in the UN Recommendations. This requirement was reconsidered by the UN Sub-committee of Experts at its fifteenth session because IBC manufacturers asked for clarification of the term "detachable parts." The Sub-committee adopted revised text to indicate that this requirement only applies to parts intended to be detached for dismantling. RSPA is proposing to incorporate this text in the HMR in response to concerns raised by industry concerning the costs associated with applying the existing HMR marking requirements.

##### Section 178.813.

RSPA is proposing to revise paragraph (b) to include the provision that the inner receptacle of a composite IBC may

be tested without the outer packaging provided the test results are not affected. This provision was inadvertently omitted in previous efforts to harmonize the HMR with the UN Recommendations.

#### *Section 180.352.*

In § 180.352, in paragraph (b), RSPA proposes to relocate a requirement that a person must perform a visual inspection prior to filling an IBC to § 173.35. The periodic leakproofness test and visual inspection requirements would be retained in paragraphs (b)(1) and (b)(2) of part 180.

In paragraph (b) (3), consistent with the changes proposed in § 173.35 to allow the reuse of rigid plastic and composite IBCs, RSPA proposes to require that they must also be internally inspected at least every five years. This requirement is consistent with paragraph 6.5.1.6.4 of the UN Recommendations.

In addition, RSPA proposes to add a new paragraph (c) to provide for the repair, testing and inspection of IBCs which are repaired after being damaged (for example, due to an impact, such as an accident). This provision was inadvertently omitted in Docket HM-215B [62 FR 24690] and is consistent with the UN Recommendations.

RSPA is specifying a deadline for comments that is less than the 45 days recommended in Executive Order 12866. This shorter comment period is intended to enable RSPA to develop and issue a final rule to coincide with the effective date of these changes in the ICAO Technical Instructions and the IMDG.

### **V. Rulemaking Analyses and Notices**

#### *A. Executive Order 12866 and DOT Regulatory Policies and Procedures*

This proposed 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 rule is not considered a significant rule under the Regulatory Policies and Procedures of the Department of Transportation [44 FR 11034].

#### *B. Executive Order 12612*

This proposed rule has been analyzed in accordance with the principles and criteria contained in Executive Order 12612 ("Federalism"). Federal hazardous materials transportation law, 49 U.S.C. 5701-5127, 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:

- (i) the designation, description, and classification of hazardous material;
- (ii) the packing, repacking, handling, labeling, marking, and placarding of hazardous material;
- (iii) the preparation, execution, and use of shipping documents related to hazardous material and requirements related to the number, contents, and placement of those documents;
- (iv) the written notification, recording, and reporting of the unintentional release in transportation of hazardous material; or
- (v) the design, manufacturing, fabricating, marking, maintenance, reconditioning, repairing, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This notice of proposed rulemaking addresses covered subjects under items i, ii, iii and v above and, if adopted as final, would preempt State, local, or Indian tribe requirements not meeting the "substantively the same" standard. 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. RSPA has determined that the effective date of Federal preemption for these requirements will be 180 days after the effective date of a final rule under this docket. Thus, RSPA lacks discretion in this area, and preparation of a federalism assessment is not warranted.

#### *C. Regulatory Flexibility Act*

This proposed rule would incorporate changes introduced in the tenth revised edition of the UN Recommendations, the 1997-98 ICAO Technical Instructions, and Amendment 29 to the IMDG Code. It would apply to offerors and carriers of hazardous materials and would facilitate the transportation of hazardous materials in international commerce by providing consistency with international requirements. U.S. companies, including numerous small entities competing in foreign markets, will be forced to comply with a dual system of regulation, to their economic disadvantage, if the changes proposed in this NPRM are not adopted. The proposed changes are intended to avoid this result. The costs associated with this proposed rule are considered to be so minimal as to not warrant preparation of a regulatory impact

analysis or regulatory evaluation. In contrast: the majority of proposed amendments should result in cost savings. No cost increases are associated with the incorporation of an exception for certain shock absorbers, struts, gas springs and shocks, and other automobile energy absorbing articles in § 173.306(f). This amendment should result in an increased cost savings for the automotive industry. Although the labeling requirements for poisonous materials in this NPRM may affect some small business entities that ship or transport hazardous materials, any adverse economic impact should be offset through a lengthy transition period, retention of current operational requirements, and modification of the POISON or TOXIC label. The proposed amendments for IBCs would remove prohibitions for reusing certain IBCs which would result in costing savings for industry by allowing IBCs to be inspected and reused, instead of used and discarded. In addition, the proposed amendments to the IBC marking requirements in § 178.703 will eliminate the burden of unnecessary markings which will also result in cost savings.

A number of amendments proposed will result in relaxation of overly burdensome requirements which will result in cost savings. For example, the removal of the requirement to performance test shrink or stretch-wrapped trays containing limited quantities of hazardous materials should result in a cost savings for many companies. The proposed authorization to allow use of recycled plastic materials when approved by the Associate Administrator for Hazardous Materials Safety, the proposed relaxation of filling requirements for IM portable tanks, the proposed authorization to use steel packages for batteries and the proposed amendments for packaging gallium, mercury, polymeric beads and plastic molding compound are other examples where cost savings will be realized. Many companies involved in domestic, as well as global operations, will realize economic benefits as a result of the proposed amendments. Therefore, I certify that this proposal will not, if promulgated, have a significant economic impact on a substantial number of small entities. This certification is subject to modification as a result of a review of comments received in response to this proposal.

#### *D. Paperwork Reduction Act*

The requirements for information collection have been approved by the Office of Management and Budget

(OMB) under OMB control numbers 2137-0034 for shipping papers and 2137-0557 for approvals. 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.

#### *E. 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.

#### *F. Unfunded Mandates Reform Act*

This proposed 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.

#### **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 174*

Hazardous materials transportation, Radioactive materials, Railroad safety.

##### *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 180*

Hazardous materials transportation, Motor carriers, Motor vehicle safety, Packaging and containers, Railroad safety, Reporting and recordkeeping requirements.

In consideration of the foregoing, 49 CFR Chapter I is proposed to be amended as follows:

#### **PART 171—GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS**

1. The authority citation for part 171 would continue to read as follows:

**Authority:** 49 U.S.C. 5101–5127; 49 CFR 1.53.

##### **§ 171.7 [Amended]**

2. In the § 171.7(a)(3) Table, the following changes are made:

a. Under “American Pyrotechnics Association”, for the entry “APA Standard 87-1. Standard for Construction and Approval for Transportation of Fireworks and Novelties”, the wording “April 1993 Edition” would be revised to read “January 23, 1998”.

b. Under “American Society for Testing and Materials”, for the entry “ASTM D 56-93 Standard Test Method for Flash Point by Tag Closed Tester”, the wording “ASTM 56-93” would be revised to read “ASTM D 56-97”.

c. Under “American Society for Testing and Materials”, for the entry “ASTM 93-94 Standard Test Methods for Flash Point by Pensky-Martens Closed Tester”, the wording “ASTM 93-94” would be revised to read “ASTM 93-97”.

d. Under “American Society for Testing Materials”, for the entry “ASTM D 3278-95 Standard Test Methods for Flash Point of Liquids by Setaflash Closed-Cup Apparatus”, the wording “ASTM D 3278-95” would be revised to read “ASTM D 3278-96”.

e. Under “American Society for Testing Materials”, for the entry “ASTM D 3828-93 Standard Test Methods for Flash Point by Small Scale Closed Tester”, the wording “ASTM D 3828-93” would be revised to read “ASTM D 3828-97”.

f. Under “Department of Defense (DOD),” for the entry “DOD TB 700–2;

NAVSEAINST 8020.8; AFTO 1 1A–1–47; DLAR 8220.1: Explosives Hazard Classification Procedure, December 1989.”, the wording “December 1989” would be revised to read “January 1998”.

g. Under “International Civil Aviation Organization (ICAO), for the entry “Technical Instructions for the Safe Transport of Dangerous Goods by Air, DOC 9284–AN/905, 1997-1 998 Edition., the wording “1997-1 998 Edition” would be revised to read “1999-2000 Edition”.

h. Under “International Maritime Dangerous Goods (IMDG) Code, 1994 Consolidated Edition, as amended by Amendment 28 (1996) (English edition).”, the wording “Amendment 28 (1996)” would be revised to read “Amendment 29 (1997)”.

i. Under “International Organization for Standardization”, a new entry “ISO 8115 Cotton Bales-Dimensions and Density, 1986 Edition” would be added in the appropriate order in the first column and the reference “§ 172.102” would be added in the second column.

j. Under “United Nations”, for the entry “UN Recommendations on the Transport of Dangerous Goods, Ninth Revised Edition (1995)”, the wording “Ninth Revised Edition (1995)” would be revised to read “Tenth Revised Edition (1999)”.

k. Under “United Nations”, for the entry “UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria”, in the second column, the reference “§ 172.102,” would be added immediately before “173.21”.

##### **§ 171.11 [Amended]**

3. In § 171.11, the following changes would be made:

a. In paragraph (d) (4) (ii), the word “must” would be revised to read “should” each place it appears.

b. In paragraph (d)(14), the wording “An aerosol” would be removed and “Except as provided for aerosols of not more than 4 fluid ounces capacity in § 173.306(a) (1) of this subchapter, aerosols” would be added in its place.

4. In § 171.12, paragraph (b)(15) would be revised to read as follows:

##### **§ 171.12 Import and export shipments.**

\* \* \* \* \*

(b) \* \* \*

(15) Cylinders not manufactured to DOT specification must conform to the requirements of § 173.301 (i) and (j) of this subchapter or, for Canadian manufactured cylinders, to the requirements of § 171.12a(b) (13).

\* \* \* \* \*

**§ 171.12 [Amended]**

5. In addition, in § 171.12, in paragraph (b)(17), the words "An aerosol" would be removed and "Except as provided for aerosols of not more than 4 fluid ounces capacity in § 173.306(a) (1) of this subchapter, aerosols" would be added in its place.

6. In § 171.12a, paragraph (b) (13) is redesignated as paragraph (b) (13) introductory text, a new sentence is added at the end of newly designated paragraph (b) (13) introductory text, and paragraphs (b) (13) (i) through (b) (13) (iv) would be added to read as follows:

**§ 171.12a Canadian shipments and packagings.**

\* \* \* \* \*

(b) \* \* \*

(13) \* \* \* However, a cylinder made in Canada that meets the following conditions is authorized for the transportation of a hazardous material within the United States:

(i) During the manufacturing process, the cylinder was marked with an approval number and an inspector's mark authorized by TDG or by its predecessor, the Railway Transport Committee of the Canadian Transport Commission (CTC), in its regulations for the Transport of Dangerous Commodities by Rail and was marked "CTC" or "TDG";

(ii) The cylinder is in full conformance with the specifications prescribed by the TDG regulations;

(iii) The cylinder has been requalified under a program authorized by the Canadian regulations or requalified in accordance with subpart C of part 180 of this subchapter within the prescribed requalification period; and

(iv) At the time the requalification is performed, in addition to the markings prescribed in § 180.211 of this subchapter, the cylinder is marked "DOT/" immediately before the Canadian specification marking (such as, "DOT/CTC").

\* \* \* \* \*

**§ 171.12a [Amended]**

7. In addition, in § 171.12a, in paragraph (b)(16), the words "An aerosol" would be removed and "Except as provided for aerosols of not more than 4 fluid ounces capacity in § 173.306(a) (1) of this subchapter, aerosols" would be added in its place.

8. In § 171.14, as amended at 62 FR 39404, effective October 1, 1998, a new paragraph (f) would be added to read as follows:

**§ 171.14 Transitional provisions for implementing certain requirements.**

\* \* \* \* \*

(f) Until October 1, 2003, the KEEP AWAY FROM FOODSTUFFS labeling and placarding requirements applicable to the use of the KEEP AWAY FROM FOODSTUFFS, in effect on October 1, 1997, label and placard may continue to be used in place of the new requirements for Division 6.1, Packing Group III materials.

**§ 171.14 [Amended]**

9. In addition, in § 171.14, as amended at 62 FR 39404, effective October 1, 1998, in the table in paragraph (b), the following changes would be made:

a. In Column 1, the entry "Division 6.1, PC I and II (other than Zone A or B inhalation hazard)" would be revised to read "Division 6.1, PG I or II. (other than Zone A or B inhalation hazard), or PG III".

b. The entry "Division 6.1, PC III" would be removed.

**PART 172—HAZARDOUS MATERIALS TABLE, SPECIAL PROVISIONS, HAZARDOUS MATERIALS COMMUNICATIONS, EMERGENCY RESPONSE INFORMATION, AND TRAINING REQUIREMENTS**

10. The authority citation for part 172 would continue to read as follows:

Authority: 49 U.S.C. 5101-5127; 49 CFR 1.53.

11. In § 172.101, paragraph (b) introductory text would be revised and a new paragraph (b)(6) would be added to read as follows:

**§ 172.101 Purpose and use of hazardous materials table.**

\* \* \* \* \*

(b) *Column 1: Symbols.* Column 1 of the Table contains six symbols ("+", "A", "D", "I", "W" and "\*" as follows:

\* \* \* \* \*

(6) The asterisk (\*) identifies proper shipping names for which the technical name of the hazardous material must be entered in parentheses in association with the basic description. (See § 172.203(k).)

\* \* \* \* \*

**§ 172.101 [Amended]**

12. In addition, in § 172.101, in the Label Substitution Table in paragraph (g), as amended at 62 FR 39404, effective October 1, 1998, the following changes would be made:

a. In Column 1, the language "6.1 (I or II, other than Zone A or B inhalation hazard)" would be revised to read "6.1 (PC I or II, other than Zone A or B inhalation hazard, or PC III)".

b. In Column 1, the entry for "6.1 (III)" would be removed.

13. In § 172.101, the Hazardous Materials Table would be amended by removing, adding, or revising, in appropriate alphabetical sequence, the following entries to read as follows:

**§ 172.101 Purpose and use of 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	
							Excep-tions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo air-craft only	Loca-tion	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	[REMOVE]												
	Alkali metal amalgams	*	*			*		*		*			
	Amyl alcohols (PG II, III)	*	*	*		*				*			
	Battery, wet, with wheelchair, see <i>Wheelchair</i> , electric.	*	*			*		*		*			
	Benzoic derivative pesticides, liquid, flammable, toxic, flash point less than 23 degrees C. (PG I, II)	*	*	*		*				*			
	Benzoic derivative pesticides, liquid, toxic. (PG I, II, III)	*	*			*							
	Benzoic derivative pesticides, liquid, toxic, flammable, <i>flashpoint</i> not less than 23 degrees C. (PG I, II, III)	*	*			*							
	Benzoic derative pesticides, solid, toxic (PG I, II, III)	*	*			*							
	Engines, internal combustion, <i>including when fitted in machinery or vehicles.</i>	*	*			*							
	Ethyl cyanoacetate	*	*			*							
D .....	Hexafluoropropylene oxide.	*	*	*		*							
	Hydrocarbon gases, compressed, n.o.s.	*	*	*		*							
	Hydrocarbon gases, liquefied, n.o.s.	*	*	*		*							
	Metal alkyl halides, n.o.s. or Metal aryl halides, n.o.s.	*	*	*		*							
	Metal alkyl hydrides, n.o.s. or Metal aryl hydrides, n.o.s.	*	*	*		*							
	Metal alkyls, n.o.s. or Metal aryls, n.o.s.	*	*	*		*							
I .....	Nitrogen trifluoride, compressed (Class 2.3)	*	*			*							
	Nitroglycerin mixture with more than 2 percent but not more than 10 percent nitroglycerin, by mass, desensitized.	*	*			*							
	2,5-Norbomadiene or Bicyclo-[2,2,1]-hepta-2,5-diene, inhibited.	*	*			*							
	Phenoxy pesticides, liquid, flammable, toxic, <i>flash point less than 23 degrees C.</i> (PG I, II)	*	*			*							
	Phenoxy pesticides, liquid, toxic (PG I, II, III)	*	*			*							

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	
							Excep-tions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo air-craft only	Loca-tion	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Phenoxy pesticides, liquid, toxic, flammable, <i>flashpoint not less than 23 degrees C.</i> (PG I, II, III)												
	Phenoxy pesticides, solid, toxic (PG I, II, III)												
		*				*		*		*			
	Phenyl urea pesticides, liquid, flammable, toxic, <i>flash point less than 23 degrees C.</i> (PG I, II)												
		*				*		*		*			
	Phenyl urea pesticides, liquid, toxic, flammable <i>flash point not less than 23 degrees C.</i> (PG I, II, III)												
	Phenyl urea pesticides, solid, toxic (PG I, II, III)												
		*						*		*			
	Phthalimide derivative pesticides, liquid, flammable, toxic, <i>flash point less than 23 degrees C.</i> (PG I, II)												
	Phthalimide derivative pesticides, liquid, toxic (PG I, II, III)												
	Phthalimide derivative pesticides, liquid, toxic, flammable <i>flash point not less than 23 degrees C.</i> (PG I, II, III)												
	Phthalimide derivative pesticides, solid, toxic (PG I, II, III)												
AW.		*		*									
	Polychlorinated biphenyls												
		*											
	Pyrophoric organometallic compound, n.o.s.												
		*		*		*							
	<i>Vehicles, self-propelled including internal combustion engines or other apparatus containing an internal combustion Engine or electric storage battery, see Engines etc. or Battery powered etc. or Wheel chair, electric).</i>												
		*		*		*		*		*			
	Wheel chair, electric ( <i>spillable or non-spillable type batteries</i> ).												
		*		*		*		*		*			
[ADD:]													
		*		*		*		*		*			
	Acetic acid solution, <i>with more than 10 percent and less than 50 percent acid, by mass</i>	8	UN2790	III	8 .....	T8 .....	154	203	242 .....	5 L .....	60 L .....	A	
		*		*		*		*		*			
	Airbag inflators, compressed gas or Air bag modules, compressed gas or Seat-belt pretensioners, compressed gas	2.2	UN3353		2.2 .....	133 .....	166	166		75 kg .....	150 kg .....	A	
		*		*		*		*		*			
	Alkali metal amalgam, liquid	4.3	UN1389	I	4.3 .....	A2, A3, N34.	None	201	244 .....	Forbidden . . .	1 L .....	E	40
	Alkali metal amalgam, solid	4.3	UN1389	I	4.3 .....	B101, 8106, N40.	None	211	242 .....	Forbidden . . .	15 kg .....	E	



* Aviation regulated liquid, n.o.s.	9	UN3334	9	A35	155	204	No limit	No limit	A	
* Aviation regulated solid, n.o.s.	9	UN3335	9	A35	155	204	No limit	No limit	A	
Bicyclo[2.2.1]hepta-2,5-diene, inhibited or 2,5-Norbomadiene, inhibited	3	UN2251	II		150	202	242	5 L	60 L	D
Bromopropanes	3	UN2344	III	T2	150	203	242	60 L	220 L	B
D Dangerous Goods in Machinery or Dangerous Goods in Apparatus		NA8001		136	None	222	None	No limit	No limit	A
Dyes, solid, corrosive, n.o.s. or Dye intermediates, solid, corrosive, n.o.s.	8	UN31 47	I		None	211	242	1 kg	25 kg	A
Engines, internal combustion, flammable gas powered	9	UN31 66		135	220	220	220	Forbidden	No limit	A
Engines, internal combustion, flammable liquid powered	9	UN31 66		135	220	220	220	No limit	No limit	
Flammable solid, oxidizing, n.o.s.	4.1	UN3097	II III	4.1, 5.1 4.1, 5.1	None None	214 214	214 214	Forbidden Forbidden	Forbidden Forbidden	E D
Fumigated lading, see §§ 172.302(g), 173.9 and 176.76(h)										
* Hydrocarbon gas mixture, compressed, n.o.s.	2.1	UN1964			306	302	314, 315.	Forbidden	150 kg	E
* Hydrocarbon gas mixture, liquefied, n.o.s.	2.1	UN1965			306	304	314, 315.	Forbidden	150 kg	E
Insecticide gases, flammable, n.o.s.	2.1	UN3354			306	304	314, 315.	Forbidden	150 kg	D
Insecticide gases, toxic, flammable, n.o.s. Inhalation hazard Zone A.	2.3	UN3355		2.3, 2.1	None	192	245	Forbidden	Forbidden	D
Insecticide gases, toxic, flammable, n.o.s. Inhalation hazard Zone B.	2.3	UN3355		2.3, 2.1	None	302, 305.	314, 315.	Forbidden	Forbidden	D
Insecticide gases, toxic, flammable, n.o.s. Inhalation hazard Zone C.	2.3	UN 3355		2.3, 2.1	None	302, 305.	314, 315.	Forbidden	Forbidden	D
Insecticide gases toxic, flammable, n.o.s. Inhalation hazard Zone D.	2.3	UN 3355		2.3, 2.1	None	302, 305.	314, 315.	Forbidden	Forbidden	D
Lithium batteries packed with equipment	9	UN3091	II	29	185	185	None	5 kg	35 kg gross	A
Mercaptans, liquid, flammable, n.o.s. or Mercaptan mixture, liquid, flammable, n.o.s.	3	UN3336	I II III	T23 T8, T31 B1, B52, T7, T30.	150 150 150	201 202 203	243 242 241	1 L 5 L 60 L	30 L 60 L 220 L	E B B
Metal alkyl halides, water-reactive n.o.s. or Metal aryl halides, water-reactive, n.o.s.	4.2	UN3049	I	4.2, 4.3	None	181	244	Forbidden	Forbidden	D
Metal alkyl hydrides, water-reactive, n.o.s. or Metal aryl hydrides, water-reactive, n.o.s.	4.2	UN3050	I	4.2, 4.3	None	181	244	Forbidden	Forbidden	D

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or division	Identification numbers	PG	Label codes	Special provisions	(8) Packaging (§ 173.17)			(9) Quantity limitations		(10) Vessel stowage	
							Excep-tions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo air-craft only	Loca-tion	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	Metal alkyls, water-reactive, n.o.s. or Metal aryls, water-reactive n.o.s.	4.2	UN2003		4.2, 4.3 .....	B11, T42 ..	None	181 .....	244 .....	Forbidden . . .	Forbidden . . .	D	
	Nitroglycerin mixture, desensitized, liquid, flammable, n.o.s. with not more than 30 percent nitroglycerin, by mass.	3	UN3343		3 .....	129, N8 ....	None	214 .....	None ..	Forbidden . . .	5 L .....	D	
* .....	Nitroglycerin mixture, desensitized, solid, n.o.s. with more than 2 percent but not more than 10 percent nitroglycerin, by mass.	4.1	UN3319	II	4.1 .....	118 .....	None	None ..	None ..	Forbidden . . .	0.5 kg .....	E	
.....	Pentaerythritol tetranitrate mixture, desensitized, solid, n.o.s. with more than 10 percent but not more than 20 percent PE TN, by mass.	4.1	UN3344	II	4.1 .....	118 .....	None	214 .....	None ..	Forbidden . . .	Forbidden . . .	B	40
	Pentanol	3	UN1105	II	3 .....	T1 .....	150	202 .....	242 .....	5 L .....	60 L .....	B	
				III	3 .....	B1, B3, T1	150	203 .....	242 .....	60 L .....	220 L .....	A	
	Phenoxyacetic acid derivative pesticide, liquid, flammable, toxic flashpoint less than 23°C.	D	UN3346		3, 6.1 .....	T23 .....	None	201 .....	243 .....	Forbidden . . .	30 L .....	B	40
	Phenoxyacetic acid derivative pesticide, liquid, toxic	6.1	UN3348	II	3, 6.1 .....	T14 .....	None	202 .....	243 .....	1 L .....	60L .....	B	40
				II	6.1 .....	T24, T26 ..	None	201 .....	243 .....	1 L .....	30 L .....	B	40
				III	6.1 .....	T14 .....	153	202 .....	243 .....	5 L .....	60 L .....	B	40
	Phenoxyacetic acid derivative pesticide, liquid, flammable, toxic flashpoint not less than 23°C.	6.1	UN3347		6.1, 3 .....	T24, T26 ..	None	201 .....	243 .....	1 L .....	30 L .....	B	40
		x		II	6.1, 3 .....	T14 .....	153	202 .....	243 .....	5 L .....	60 L .....	B	40
	Phenoxyacetic acid derivative pesticide, solid, toxic	x		III	6.1, 3 .....	T14 .....	153	203 .....	241 .....	60 L .....	220 L .....	A	40
		6.1	UN3345		6.1 .....		None	211 .....	242 .....	5 kg .....	50 kg .....	A	40
				II	6.1 .....		153	212 .....	242 .....	25 kg .....	100 kg .....	A	40
				III	6.1 .....		153	213 .....	240 .....	100 kg .....	200 kg .....	A	40
AW .....	Polychlorinated biphenyls, liquid	9	UN2315	II	9 .....	81 .....	155	202 .....	241 .....	100 L .....	220 L .....	A	34
AW .....	Polychlorinated biphenyls, solid	9	UN2315	II	9 .....	81 .....	155	202 .....	241 .....	100 kg .....	200 kg .....	A	34
	Pyrethroid pesticide, liquid, flammable, toxic, flashpoint less than 23°C.	8	UN3350		3, 6.1 .....	T24, T26 ..	None	201 .....	243 .....	Forbidden . . .	30 L .....	B	40
	Pyrethroid pesticide, liquid toxic	6.1	UN3352	II	3, 6.1 .....	T14 .....	None	202 .....	243 .....	1 L .....	60 L .....	B	40
				II	6.1 .....		None	211 .....	242 .....	1 L .....	30 L .....	A	40
				III	6.1 .....		153	212 .....	242 .....	5 L .....	60 L .....	A	40
	Pyrethroid pesticide, liquid, toxic, flammable, flashpoint not less than 23°C.	6.1	UN3351		6.1, 3 .....	T24, T26 ..	None	201 .....	243 .....	1 L .....	30 L .....	B	40
				II	6.1, 3 .....	T14 .....	153	202 .....	243 .....	5 L .....	60 L .....	B	40
				III	6.1, 3 .....	T14 .....	153	203 .....	241 .....	60 L .....	220 L .....	B	40
	Pyrethroid pesticide, solid, toxic	6.1	UN3349		6.1 .....		None	211 .....	242 .....	5 kg .....	50 kg .....	A	40
				II	6.1 .....		153	212 .....	242 .....	25 kg .....	100 kg .....	A	40
				III	6.1 .....		153	213 .....	240 .....	100 kg .....	200 kg .....	A	40
	Pyrophoric organometallic compound, water-reactive, n.o.s.	4.2	UN3203		4.2, 4.3 .....	T28, T40 ..	None	187 .....	242 .....	Forbidden . . .	Forbidden . . .	D	

Refrigerant gas R 404A .....	2.2	UN3337		2.2	.....	306	304.....	314, 315.	75 kg .....	150 kg .....	A	
Refrigerant gas R 407A .....	2.2	UN3338		2.2	.....	306	304.....	314, 315.	75 kg .....	150 kg .....	A	
Refrigerant gas R 4078 .....	2.2	UN3339		2.2	.....	306	304.....	314, 315.	75 kg .....	150 kg .....	A	
Refrigerant gas R 407C .....	2.2	UN3340		2.2	.....	306	304.....	314, 315.	75 kg .....	150 kg .....	A	
Thiourea dioxide .....	4.3	UN3341	II	4.2	.....	None	212.....	241 .....	15 kg .....	50 kg .....	D	
			III	4.2	.....	None	213.....	241 .....	25 kg .....	100 kg .....	D	
Vehicle, flammable gas powered .....	UN31	66		9	.....	135	.....	220 220.....	220 .....	Forbidden . . .	No limit .....	A
Vehicle, flammable liquid powered .....	9	UN31	66	9	.....	135	.....	220 220.....	220 .....	No limit .....	No limit .....	A
Xanthates . . .	4.2	UN3342	II	4.2	.....	None	212.....	241 .....	15 kg .....	50 kg .....	D	25, 40
			III	4.2	.....	None	213.....	241 .....	25 kg .....	100 kg .....	D	
[REVISE)												
Nitrogen trifluoride, compressed .....	2.2	UN2451		2.2, 5.1	.....	None	302.....	None . .	75 kg .....	150 kg .....	D	40
Piperidine .....	8	UN2401	I	8, 3	.....	None	201.....	243 .....	0.5 L .....	2.5 L .....	D	
Propyleneimine, inhibited .....	3	UN1921	I	3, 6.1	.....	None	201.....	243 .....	1 L .....	30 L .....	B, 40	
Vanadium pentoxide, non-fused form .....	6.1	UN2862	III	6.1	.....	153	213.....	240 .....	100 kg .....	200 kg .....	A	40

# § 172.101 [Amended]

14. In addition, in the § 172.101 Hazardous Materials Table, the following changes would be made:

14-1. In Column (1), the symbol “+” would be added for each of the following entries:

Aminophenols (*o*;-;*m*;-;*p*-;) (UN25 12)  
 Chlorodinitrobenzenes (UN1 577)  
 Dichloroanilines, liquid (UN1 590)  
 Dichloroaniines, solid (UN1 590)  
 o-Dichlorobenzene (UN 159 1)  
 N,N-Diethylaniline (UN2432)  
 Epichlorohydrin (UN2023)  
 Nitroanilines (*o*;-;*m*;-;*p*-;) (UN1 661)  
 Nitroanisole (UN2730)  
 Nitrobenzene (UN 1662)  
 Nitrophenols (*o*;-;*m*;-;*p*-;) (UN1 663)  
 Phenetidines (UN231 1)  
 Phenylenediamines (*o*;-;*m*;-;*p*-;) (UN1 673)  
 Toluene diisocyanate (UN2078)  
 Toiuidines, *liquid* (UN 1708)  
 Toluidines, *solid* (UN1 708)

14-2. In Column (1), the letter “A” would be removed for each of the following entries:

Other regulated substances, liquid, n.o.s.  
 Other regulated substances, solid, n.o.s.

14-3. In Column (1), the new symbol “\*” would be added for each of the following entries:

Alcoholates solution, n.o.s., *in alcohol*.  
 Alcohols, flammable, toxic, n.o.s.  
 Aldehydes, flammable, toxic, n.o.s.  
 Alkali metal alcoholates, self-heating, corrosive, n.o.s.  
 Alkaline earth metal alcoholates, n.o.s.  
 Alkaloids, liquid, n.o.s. or Alkaloid salts, liquid, n.o.s.  
 Alkaloids, solid, n.o.s. or Alkaloid salts, solid, n.o.s. *poisonous*.  
 Amines, flammable, corrosive, n.o.s. or Polyamines, flammable, corrosive, n.o.s.  
 Amines, liquid, corrosive, flammable, n.o.s. or Polyamines, liquid, corrosive, flammable, n.o.s.  
 Amines, liquid, corrosive, n.o.s. or Polyamines, liquid, corrosive, n.o.s.  
 Amines, solid, corrosive, n.o.s., or Polyamines, solid, corrosive, n.o.s.  
 Ammunition, toxic *with burster, expelling charge, or propelling charge*. (two entries, UN0020 and UN0021)  
 Articles, explosive, n.o.s. (all 19 entries)  
 Caustic alkali liquids, n.o.s.  
 Chloroformates, toxic, corrosive, flammable, n.o.s.  
 Chloroformates, toxic, corrosive, n.o.s.  
 Combustible liquid, n.o.s.  
 Components, explosive train, n.o.s. (all four entries)  
 Compounds, cleaning liquid (two entries, NA1760 and NA 1993)  
 Compounds, tree killing, liquid or Compounds, weed killing, liquid (NA1760)

Compounds, tree killing, liquid or Compounds, weed killing, liquid (NA 1993)  
 Compressed gas, oxidizing, n.o.s.  
 Compressed gas, toxic, corrosive, n.o.s. (All hazard zones, four entries)  
 Compressed gas, toxic, flammable, corrosive, n.o.s. (All hazard zones, four entries)  
 Compressed gas, toxic, oxidizing, corrosive, n.o.s. (All hazard zones, four entries)  
 Compressed gas, toxic, oxidizing, n.o.s. (All hazard zones, four entries)  
 Compressed gases, flammable, n.o.s.  
 Compressed gases, n.o.s.  
 Compressed gases, toxic, flammable, n.o.s. (All hazard zones, four entries)  
 Compressed gases, toxic, n.o.s. (All hazard zones, four entries)  
 Corrosive, liquid, acidic, inorganic, n.o.s.  
 Corrosive, liquid, acidic, organic, n.o.s.  
 Corrosive, liquid, basic, inorganic, n.o.s.  
 Corrosive, liquid, basic, organic, n.o.s.  
 Corrosive liquid, self-heating, n.o.s.  
 Corrosive liquids, flammable, n.o.s.  
 Corrosive liquids, n.o.s.  
 Corrosive liquids, oxidizing, n.o.s.  
 Corrosive liquids, toxic, n.o.s.  
 Corrosive liquids, water-reactive, n.o.s.  
 Corrosive, solid, acidic, inorganic, n.o.s.  
 Corrosive, solid, acidic, organic, n.o.s.  
 Corrosive, solid, basic, inorganic, n.o.s.  
 Corrosive, solid, basic, organic, n.o.s.  
 Corrosive solids, flammable, n.o.s.  
 Corrosive solids, n.o.s.  
 Corrosive solids, oxidizing, n.o.s.  
 Corrosive solids, self-heating, n.o.s.  
 Corrosive solids, toxic, n.o.s.  
 Corrosive solids, water-reactive, n.o.s.  
 Disinfectant, liquid, corrosive, n.o.s.  
 Disinfectants, liquid, corrosive n.o.s.  
 Disinfectants, liquid, toxic, n.o.s.  
 Disinfectants, solid, toxic, n.o.s.  
 Dispersant gases, n.o.s.  
 Dyes, liquid, corrosive, n.o.s. or Dye intermediates, liquid, corrosive, n.o.s.  
 Dyes, liquid, toxic, n.o.s. or Dye intermediates, liquid, toxic, n.o.s.  
 Dyes, solid, corrosive, n.o.s. or Dye intermediates, solid, corrosive, n.o.s.  
 Dyes, solid, toxic, n.o.s. or Dye intermediates, solid, toxic, n.o.s.  
 Environmentally hazardous substances, liquid, n.o.s.  
 Environmentally hazardous substances, solid, n.o.s.  
 Flammable liquid, toxic, corrosive, n.o.s.  
 Flammable liquids, corrosive, n.o.s.  
 Flammable liquids, n.o.s.  
 Flammable liquids, toxic, n.o.s.  
 Flammable solid, corrosive, inorganic, n.o.s.  
 Flammable solid, inorganic, n.o.s.  
 Flammable solid, organic, molten, n.o.s.  
 Flammable solid, toxic, inorganic, n.o.s.  
 Flammable solids, corrosive, organic, n.o.s.

Flammable solids, organic, n.o.s.  
 Flammable solids, toxic, organic, n.o.s.  
 Gas, refrigerated liquid, flammable, n.o.s. (*cryogenic liquid*).  
 Gas, refrigerated liquid, n.o.s. (*cryogenic liquid*).  
 Gas, refrigerated liquid, oxidizing, n.o.s. (*cryogenic liquid*).  
 Hazardous waste, liquid, n.o.s.  
 Hazardous waste, solid, n.o.s.  
 Infectious substances, affecting animals *only*.  
 Infectious substances, affecting humans *only*.  
 Insecticide gases *flammable* n.o.s.  
 Insecticide gases, n.o.s.  
 Insecticide gases, toxic, n.o.s.  
 Isocyanates, flammable, toxic, n.o.s. or Isocyanate solutions, flammable, toxic, n.o.s. *flashpoint less than 23 degrees C*.  
 Isocyanates, toxic, flammable, n.o.s. or Isocyanate solutions, toxic, flammable, n.o.s., *flash point not less than 23 degrees C but not more than 61 degrees C and boiling point less than 300 degrees C*.  
 Isocyanates, toxic, n.o.s. or Isocyanate solutions, toxic, n.o.s., *flash point more than 61 degrees C and boiling point less than 300 degrees C*.  
 Ketones, liquid, n.o.s.  
 Liquefied gas, flammable, n.o.s.  
 Liquefied gas, n.o.s.  
 Liquefied gas, oxidizing, n.o.s.  
 Liquefied gas, toxic, corrosive, n.o.s. (All hazard zones)  
 Liquefied gas, toxic, flammable, corrosive, n.o.s. (All hazard zone entries)  
 Liquefied gas, toxic, flammable, n.o.s. (All hazard zone entries)  
 Liquefied gas, toxic, n.o.s. (All hazard zone entries)  
 Liquefied gas, toxic, oxidizing, corrosive, n.o.s. (All hazard zone entries)  
 Liquefied gas, toxic, oxidizing, n.o.s. (All hazard zone entries)  
 Metal salts of organic compounds, flammable, n.o.s.  
 Metallic substance, water-reactive, n.o.s.  
 Metallic substance, water-reactive, self-heating, n.o.s.  
 Nitriles, flammable, toxic, n.o.s.  
 Nitriles, toxic, flammable, n.o.s.  
 Nitriles, toxic, n.o.s.  
 Organic peroxide type B, liquid  
 Organic peroxide type B, liquid, temperature controlled  
 Organic peroxide type B, solid  
 Organic peroxide type B, solid, temperature controlled  
 Organic peroxide type C, liquid  
 Organic peroxide type C, liquid, temperature controlled  
 Organic peroxide type C, solid  
 Organic peroxide type C, solid, temperature controlled

Organic peroxide type D, liquid	Self-heating liquid, corrosive, inorganic, n.o.s.	Solids containing corrosive liquid, n.o.s.
Organic peroxide type D, liquid, temperature controlled	Self-heating liquid, corrosive, organic, n.o.s.	Solids containing flammable liquid, n.o.s.
Organic peroxide type D, solid	Self-heating liquid, inorganic, n.o.s.	Solids containing toxic liquid, n.o.s.
Organic peroxide type D, solid, temperature controlled	Self-heating liquid, organic, n.o.s.	Substances, explosive, n.o.s. (all 13 entries)
Organic peroxide type E, liquid	Self-heating liquid, toxic, inorganic, n.o.s.	Substances, explosive, very insensitive, n.o.s., or Substances, EVI. n.o.s.
Organic peroxide type E, liquid, temperature controlled	Self-heating liquid, toxic, organic, n.o.s.	Tear gas substances, liquid, n.o.s.
Organic peroxide type E, solid	Self-heating solid, corrosive, inorganic, n.o.s.	Tear gas substances, solid, n.o.s.
Organic peroxide type E, solid, temperature controlled	Self-heating solid, corrosive, organic, n.o.s.	Toxic liquid, corrosive, inorganic, n.o.s. (all three entries)
Organic peroxide type F, liquid	Self-heating solid, inorganic, n.o.s.	Toxic liquid, inorganic, n.o.s. (all three entries)
Organic peroxide type F, liquid, temperature controlled	Self-heating solid, organic, n.o.s.	Toxic liquids, corrosive, organic, n.o.s. (all three entries)
Organic peroxide type F, solid	Self-heating solid, oxidizing, n.o.s.	Toxic liquids, flammable, organic n.o.s. (all three entries)
Organic peroxide type F, solid, temperature controlled	Self-heating solid, toxic, inorganic, n.o.s.	Toxic liquids, organic, n.o.s. (all three entries)
Organometallic compound or Compound solution or Compound dispersion, water-reactive, flammable, n.o.s.	Self-heating solid, toxic, organic, n.o.s.	Toxic liquids, oxidizing, n.o.s. (all three entries)
Organometallic compound, toxic, n.o.s.	Self-reactive liquid type B	Toxic liquids, water-reactive, n.o.s. (all three entries)
Oxidizing liquid, corrosive, n.o.s.	Self-reactive liquid type B, temperature controlled	Toxic solid, corrosive, inorganic, n.o.s.
Oxidizing liquid, n.o.s.	Self-reactive liquid type C	Toxic solid, inorganic, n.o.s.
Oxidizing liquid, toxic, n.o.s.	Self-reactive liquid type C, temperature controlled	Toxic solids, corrosive, organic, n.o.s.
Oxidizing solid, corrosive, n.o.s.	Self-reactive liquid type D	Toxic solids, flammable, organic, n.o.s.
Oxidizing solid, flammable, n.o.s.	Self-reactive liquid type D, temperature controlled	Toxic solids, organic, n.o.s.
Oxidizing solid, n.o.s.	Self-reactive liquid type E	Toxic solids, oxidizing, n.o.s.
Oxidizing solid, self-heating, n.o.s.	Self-reactive liquid type E, temperature controlled	Toxic solids, self-heating, n.o.s.
Oxidizing solid, toxic, n.o.s.	Self-reactive liquid type F	Toxic solids, water-reactive, n.o.s.
Oxidizing solid, water-reactive, n.o.s.	Self-reactive liquid type F, temperature controlled	Water-reactive, liquid, corrosive, n.o.s.
Pesticides, liquid, flammable, toxic, <i>flashpoint less than 23 degrees C.</i>	Self-reactive solid type B	Water-reactive, liquid, n.o.s.
Pesticides, liquid, toxic, flammable, n.o.s. <i>flashpoint not less than 23 degrees C.</i>	Self-reactive solid type B, temperature controlled	Water-reactive, liquid, toxic, n.o.s.
Pesticides, liquid, toxic, n.o.s.	Self-reactive solid type C	Water-reactive, solid, corrosive, n.o.s.
Pesticides, solid, toxic, n.o.s.	Self-reactive solid type C, temperature controlled	Water-reactive, solid, flammable, n.o.s.
Pyrophoric liquid, inorganic, n.o.s.	Self-reactive solid type D	Water-reactive, solid, n.o.s.
Pyrophoric liquids, organic, n.o.s.	Self-reactive solid type D, temperature controlled	Water-reactive, solid, oxidizing, n.o.s.
Pyrophoric metals, n.o.s. or Pyrophoric alloys, n.o.s.	Self-reactive solid type E	Water-reactive, solid, self-heating, n.o.s.
Pyrophoric organometallic compound, n.o.s.	Self-reactive solid type E, temperature controlled	Water-reactive, solid, toxic, n.o.s.
Pyrophoric solid, inorganic, n.o.s.	Self-reactive solid type F	
Pyrophoric solids, organic, n.o.s.	Self-reactive solid type F, temperature controlled	
Refrigerant gases, n.o.s.		
Samples, explosive, <i>other than initiating explosives</i>		

14-4. In Column 2, the following hazardous materials descriptions and proper shipping names would be revised as follows:

Current column 2 entry	Revise to read:
Air bag inflators or Air bag modules or Seat-belt pretensioners .....	Air bag inflators pyrotechnic or Air bag modules pyrotechnic or Seat-belt pretensioners pyrotechnic.
Acetic acid solution, with more than 10 percent but not more than 80 percent acid, by mass. (UN2790) (PG II).	Acetic acid solution, not less than 50 percent but not more than 80 percent acid, by mass. (PG II entry)
Automobile, motorcycle, tractor, or other self-propelled vehicle, engine, or other mechanical apparatus, see Engines or Battery etc.	Automobile, motorcycle, tractor, other self-propelled vehicle, engine, or other mechanical apparatus, see Vehicles or Battery etc.
Charges, shaped, commercial, without detona tor. (UN0059) .....	Charges, shaped, without detonator. (UN0059)
Charges, shaped, commercial, without detonator. (UN0439) .....	Charges, shaped, without detonator. (UN0439)
Charges, shaped, commercial, without detonator. (UN0440) .....	Charges, shaped, without detonator. (UN0440)
Charges, shaped, commercial, without detonator. (UN0441) .....	Charges, shaped, without detonator. (UN0441)
Dithiocarbamate pesticides, liquid, flammable, toxic. (UN2772 both entries).	Thiocarbamate pesticide, liquid, flammable, toxic.
Dithiocarbamate pesticides, liquid, toxic. (UN3006, all 3 entries) .....	Thiocarbamate pesticide, liquid, toxic.
Dithiocarbamate pesticides, liquid, toxic, flammable, <i>flashpoint not less than 23 degrees C.</i> (UN3005, all 3 entries).	Thiocarbamate pesticide, liquid, toxic, flammable, <i>flashpoint not less than 23 degrees C.</i>
Dithiocarbamate pesticides, solid, toxic. (UN2771, all 3 entries) .....	Thiocarbamate pesticide, solid, toxic.
Elevated temperature liquid, n.o.s., at or above 100 C and below its flash point. (UN3257).	Elevated temperature liquid, n.o.s., at or above 100 C and below its flash point (including molten metals, molten salts, etc.).

Current column 2 entry	Revise to read:
Octyl aldehydes, <i>flammable</i> .....	Octyl aldehydes.

14-5. For the following entries, Column (6) would be revised as follows:

Column (2) entry	Column (6) entry	Revise to read:
Aluminum alkyl halides .....		4.2, 4.3.
Aluminum alkyl hydrides .....	..... .2	41.2, 4.3.
Aluminum alkyls .....	4.2	4.2, 4.3.
Diethylzinc .....		4.2, 4.3.
Dimethylzinc .....	.....	4.2, 4.3.
Magnesium alkyls .....	.2	4.2, 4.3.
Nitric Acid <i>other than red fuming, with more than 70 percent nitric acid. (UN2031, PG I only)</i> .....	8	8, 5.1.
Sodium nitrite .....	.....	6.1.

14-6. For the following entries, Column (7) would be revised as follows:

Column (2) entry	Column (7) entry	Revise to read:
Ammonium nitrate fertilizers: <i>uniform non-segregating mixtures of nitrogen/phosphate or nitrogen/potash types or complete fertilizers of nitrogen/phosphate/potash type, with not more than 70 percent ammonium nitrate and not more than 0.4 percent total (UN2071).</i>	.....	132.
Battery, dry, not subject to the requirements of this subchapter .....		130.
Battery-powered vehicle or Battery-powered equipment .....		134.
Chlorosilanes, corrosive, n.o.s. ....	B2, T8, T26 .....	B2, T14, T26.
Chlorosilanes, flammable, corrosive, n.o.s. ....	8100, T18, T26 .....	B100, T17, T26.
Chlorosilanes, water-reactive, flammable, corrosive, n.o.s. ....	A2, T24, T26 .....	A2, T18, T26.
Corrosive liquids, toxic, n.o.s. (PG I) (UN2922) .....	A7, B10, T18, T27 .....	A7, B10, T12, T18, T27.
Corrosive liquids, toxic, n.o.s. (PG II) (UN2922) .....	B3, T18, T26 .....	B3, T12, T18, T26.
Cotton (NA1365) .....	W41 .....	137, w41.
Cotton waste, oily .....	N9 .....	
Detonator assemblies, non-electric for blasting (UN0500) .....	104 .....	
Detonators, electric for blasting (UN0456) .....	104 .....	
Detonators for ammunition (UN0366) .....	104 .....	
Detonators, non-electric for blasting (UN0455) .....	104 .....	
Environmentally hazardous substances, solid, n.o.s. ....	8, B54 .....	8, B54, N20.
Fibers or Fabrics, animal or vegetable or synthetic n.o.s. with animal or vegetable oil.		137.
Hydrogen peroxide, aqueous solutions with not less than 8 percent but less than 20 percent hydrogen peroxide (stabilized as necessary). (UN2984).	17, A1, 8104, T8, T37 .....	A1, 8104, T8, T37.
Lead, compounds, soluble n.o.s. ....		138.
Organic pigments, self-heating (PG III) .....	B101 .....	
Organometallic compound or Compound solution or Compound dispersion, water-reactive, flammable, n.o.s. (PG I).		T28.
Organometallic compound or Compound solution or Compound dispersion, water-reactive, flammable, n.o.s. (PG II)		T28.
Organometallic compound or Compound solution or Compound dispersion, water-reactive, flammable, n.o.s. (PG III).	B101, B106 .....	T28.
Polyester resin kit .....	121 .....	40.
Sodium azide .....	B28 .....	

14-7. In Column (8B), for the entry, "Chloropicrin", the reference "227" would be removed and "193" would be added in its place.

14-8. For the entry, "Plastic molding compound in dough, sheet or extruded rope form evolving flammable vapor." (UN33 14), the following changes would be made:

a. In Column (8B), the reference "213" would be removed and "221" would be added in its place.

b. In Column (8C), the reference "None" would be removed and "22 1" would be added in its place.

14-9. In Column (8C), for the entry, "Polymeric beads, *expandable, evolving flammable vapor.*", the reference "240" would be removed and "221" would be added in its place.

14-10. In Column (9A), the following changes would be made:

a. For the entry, "Acetonitrile", the quantity limit "1 L" would be removed and "5 L" would be added in its place.

b. For the entry "Alkaline earth metal alcoholates, n.o.s.", for Packing Group III, the quantity limit "15 kg" would be removed and "25 kg" would be added in its place.

c. For the entries "Batteries, wet, filled with acid, *electric storage.*" and "Batteries, wet, filled with alkali, *electric storage.*", the quantity limit "25 kg gross" would be removed and "30 kg gross" would be added each place it appears.

d. For the entry "Refrigerating machines, *containing non-flammable, non-toxic, liquefied gas or ammonia solutions (UN2672)*", UN2857, the word "Forbidden" would be removed and "450 kg gross" would be added in its place.

14-1.1. For the entries "Sulfur", NA1350 and "Sulfur", UN1350, the following changes would be made:

a. In Column (9A), the quantity limit "25 kg" would be removed and "No limit" would be added each place it appears.

b. In Column (9B), the quantity limit "100 kg" would be removed and "No limit" would be added each place it appears.

14-1.2. In Column 9(a), the following changes would be made:

a. For the entry, "Isobutyl isocyanate", the quantity limit "1 L" would be removed and "Forbidden" would be added in its place.

b. For the entry "Refrigerating machines containing non-flammable, non-toxic, liquefied gas or ammonia solutions (UN2073)." (UN2857), in Column 9(A), the word "Forbidden" would be removed and "450 kg gross" would be added in its place.

14-1.3. In Column (9B), the following changes would be made:

a. For the entry, "Aerosols, flammable, n.o.s." (*engine starting fluid*) (*each not exceeding 1 L capacity*), the word "Forbidden" would be removed and "150 kg" would be added in its place.

b. For the entries, "Articles, explosive, n.o.s.", UN035 1: "Articles, explosive, n.o.s.", UN0352; and "Articles, explosive, n.o.s.", UN0353, the word "Forbidden" would be removed and "75 kg" would be added each place it appears.

c. For the entry, "Bromine or Bromine solutions", the quantity limit "2.5 L" would be removed and "Forbidden" would be added in its place.

d. For the entry, "Oxygen generator, chemical", the quantity limit "25 kg" would be removed and "25 kg gross" would be added in its place.

14-1.4. In Column (10A), the following changes would be made:

a. For the entry, "Dichlorophenyl isocyanates", the stowage requirement "A" would be removed and "B" would be added in its place.

b. For the entry, "Hexamethylene diisocyanate", the stowage requirement "B" would be removed and "C" would be added in its place.

c. For the entry, "Isocyanates, toxic, flammable, n.o.s. or Isocyanate solutions, toxic, flammable, n.o.s. *flash point not less than 23 degrees C but not more than 61 degrees C and boiling point less than 300 degrees C.*", the

stowage requirement "D" would be removed and "B" would be added in its place.

d. For the entry, "Isocyanatobenzotrifluorides", the stowage requirement "B" would be removed and "D" would be added in its place.

e. For the entry, "Water-reactive solid, flammable, n.o.s., for Packing Group I., the stowage requirement "E" would be removed and "D" would be added in its place.

f. For the entry, "Isocyanates, toxic, n.o.s. or Isocyanate, solutions, toxic, n.o.s., *flash point more than 61 degrees C and boiling point less than 300 degrees C.*", the stowage requirement "D" would be removed and "E" would be added in its place.

15. In Appendix B to § 172.101, the List of Marine Pollutants would be amended by removing eleven entries and adding sixteen entries in appropriate alphabetical order to read as follows:

#### Appendix B to § 172.101—List of Marine Pollutants

\* \* \* \* \*

S.M.P	Marine pollutant
(1)	(2)
[REMOVE:]	Alkyl (C10–C21) sulphonic acid ester of phenol. ortho-Anisidines. Barium compounds, soluble, n.o.s. Di-normal-butyl ketone. Diphenyl oxide. Isopropenyl chloride. Isopropyl chloride. 3-Methylpyridine. Sym-Dichloroethyl ether. Tetrachlorovinphos.
[ADD:]	
.	.
.	Alkylbenzenesulphonates, branched and straight chain.
.	.
PP	Chlorinated paraffins (C14–C17), with more than 1% shorter chain length.
*	.
.	1-Chloro-2,3-Epoxypropane.
.	.
PP	Copper sulphate, anhydrous, hydrates.
.	.
.	Dichlorodimethyl ether, symmetrical.
*	.
.	Isobutyl aldehyde.
.	.
.	Isobutyraldehyde.
.	.
.	Maneb.

S.M.P	Marine pollutant
(1)	(2)
*	*
	Maneb preparation, stabilized against self-heating.
PP .....	N,N-Dimethyldodecylamine.
*	*
	Nitrotoluenes (ortho-, meta-, para-), solid.
*	*
	Normal-heptaldehyde.
*	*
	Potassium cyanide, solution.
*	*
	Sodium cyanide, solution.
PP .....	Triphenyl phosphate/tert-butylated triphenyl phosphates mixtures containing 5% to 10% triphenyl phosphates.
	Triphenyl phosphate/tert-butylated triphenyl phosphates mixtures containing 10% to 48% triphenyl phosphates.
*	*

#### § 172.101, Appendix B [Amended]

16. In addition, in Appendix B to § 172.101, the List of Marine Pollutants, the following changes would be made:

a. In column (1), the designation "PP" would be added for the following entries:

"Azinphos-methyl."  
 "Cupric chloride."  
 "Cuprous chloride."  
 "Furathiocarb (ISO)."  
 "Osmium tetroxide."  
 "Triphenylphosphate."

b. In column (1), the designation "PP" would be removed for the entry "Silver orthoarsenite".

c. In column (2), the following entries would be revised to read as follows in appropriate alphabetical order:

"Alcohol C-12-C-15 poly(1-3) ethoxylate" would be revised to read "Alcohol C-12-C-16 poly(1-6) ethoxylate".

"Alkylphenols, liquid, n.o.s. (including C2-C8 homologues)" would be revised to read "Alkylphenols, liquid, n.o.s. (including C2-C12 homologues)".

"Alkylphenols, solid, n.o.s. (including C2-C8 homologues)" would be revised to read "Alkylphenols, solid, n.o.s. (including C-2-C-1 2 homologues)".

"2-Butenal, inhibited" would be revised to read "2-Butenal, stabilized".

"Chlorodinitrobenzenes" would be revised to read "Chlorodinitrobenzenes, liquid or solid".

"Chlorophenates, liquid" would be revised to read "Chlorophenolates, liquid".

"Chlorophenates, solid" would be revised to read "Chlorophenolates, solid".

"Chlorotoluenes" would be revised to read "Chlorotoluenes (ortho-, meta-, para-)".

"Crotonaldehyde, inhibited" would be revised to read "Crotonaldehyde, stabilized".

"Crotonic aldehyde" would be revised to read "Crotonic aldehyde, stabilized".

"Decyloxytetrahydrothiophene dioxide" would be revised to read "Dicycloxytetrahydrothiophene dioxide".

"Dichloroethyl ether" would be revised to read "Di-(2-chloroethyl) ether".

"Dodecylamine" would be revised to read "1-Dodecylamine".

"Hydrocyanic acid, anhydrous, stabilized" would be revised to read "Hydrocyanic acid, anhydrous, stabilized, containing less than 3% water".

"Hydrocyanic acid, anhydrous, stabilized, absorbed in a porous material" would be revised to read "Hydrocyanic acid, anhydrous, stabilized, containing less than 3% water and absorbed in a porous material".

"Isobutybenzene" would be revised to read "Isobutylbenzene".

"Maneb or Maneb preparations with not less than 60 per cent maneb" would be revised to read "Maneb preparations with not less than 60% maneb".

"Mercarbam" would be revised to read "Mecarbam".

"Mercurous bisuphate" would be revised to read "Mercurous bisulphate".

"Mercury based pesticides, liquid, flammable, toxic, n.o.s." would be revised to read "Mercury based pesticide, liquid, flammable, toxic".

"Mercury based pesticides, liquid, toxic, flammable, n.o.s." would be revised to read "Mercury based pesticide, liquid, toxic, flammable".

"Mercury based pesticides, liquid, toxic, n.o.s." would be revised to read "Mercury based pesticide, liquid, toxic".

"Mercury based pesticides, solid, toxic, n.o.s." would be revised to read "Mercury based pesticide, solid, toxic".

"3-Methylacroleine, inhibited" would be revised to read "3-Methylacrolein, stabilized".

"Nitrobenzotrifluorides" would be revised to read "Nitrobenzotrifluorides, liquid or solid".

"Nitrotoluenes (o-,m-,p-)" would be revised to read "Nitrotoluenes (ortho-, meta-, para-), liquid".

"Nitroxylenes (o-,m-,p-)" would be revised to read "Nitroxylenes, liquid or solid".

"Potassium cyanide" would be revised to read "Potassium cyanide, solid".

"Potassium cyanocuprate I" would be revised to read "Potassium cyanocuprate (I)".

"Sodium cyanide" would be revised to read "Sodium cyanide, solid".

"Tetrachloroethane" would be revised to read "1,1,2,2-Tetrachloroethane".



"Tetramethylbenzenes" would be revised to read "n-Tetramethylbenzenes".

"Tricresyl phosphate (*not less than 1% ortho-isomer*)" would be revised to read "Tricresyl phosphate, not less than 1% ortho-isomer but not more than 3% orthoisomer".

"White phosphorus, molten" would be revised to read "Phosphorus, white, molten".

"Yellow phosphorus, molten" would be revised to read "Phosphorus, yellow, molten".

17. In § 172.102, in paragraph (c)(1), Special Provision 43 would be amended by adding a sentence at the end, Special Provisions 129, 130, 131, 132, 133, 134, 135, 136, 137 and 138 would be added; in paragraph (c)(2), Special Provision A35 would be added; and in paragraph (c)(3), Special Provision B101 would be revised to read as follows:

#### § 172.102 Special provisions.

(c) \* \* \*  
(1) \* \* \*  
Code/Special Provisions  
\* \* \*

43. \* \* \* Nitrocellulose membrane filters covered by this entry, each with a mass not exceeding 0.5 g, are not subject to the requirements of this subchapter when contained individually in an article or a sealed packet.

129. -These materials must not be classified and transported unless authorized by the Associate Administrator for Hazardous Materials Safety on the basis of results from Series 2 Test and a Series 6(c) Test from the UN Manual of Tests and Criteria on packages as prepared for transport. The packing group assignment and packaging must be approved by the Associate Administrator for Hazardous Materials Safety on the basis of the criteria in § 173.2.1 of this subchapter and the package type used for the Series 6(c) test.

130. Batteries, dry are not subject to the requirements of this subchapter only when they are offered for transportation in a manner that prevents short-circuits (for example, by the effective insulation of exposed terminals) or the dangerous evolution of heat.

131. This material may not be offered for transportation unless approved by the Associate Administrator for Hazardous Materials Safety.

132. Ammonium nitrate fertilizers of this composition are not subject to the requirements of this subchapter if shown by a trough test (see United Nations Recommendations on the Transport of Dangerous Goods, Manual-Tests and Criteria, Part III, sub-section 38.2) not to be liable to self-sustaining decomposition and provided that they do not contain an excess of nitrate greater than 10% by mass (calculated as potassium nitrate).

133. This description applies to articles which are used as life-saving vehicle air bag

inflators or air bag modules or seat-belt pretensioners, containing a gas or a mixture of compressed gases classified under Division 2.1 or Division 2.2, and with or without small quantities of pyrotechnic material. For units with pyrotechnic material, initiated explosive effects shall be contained within the pressure vessel such that the unit may be excluded from Class 1 in accordance with paragraph 1.11 (b), in conjunction with paragraph 16.6.1.4.7(a)(ii) of the UN Manual of tests and Criteria, Part 1. In addition, units must be designed or packaged for transport so that when engulfed in a fire there will be no fragmentation of the pressure vessel or projection hazard. This may be determined by analysis or test. The pressure vessel must be in compliance with the requirements for the gas(es) contained in the pressure vessel.

134. This entry only applies to vehicles, machinery and equipment which are powered by wet batteries or sodium batteries and which are transported with these batteries installed. Examples of such items are electrically-powered cars, lawn mowers, wheelchairs and other mobility aids. Self-propelled vehicles which also contain an internal combustion engine must be consigned under the entry "Vehicle, flammable gas powered" or "Vehicle, flammable liquid powered", as appropriate.

135. The entries "Vehicle, flammable gas powered" or "Vehicle, flammable liquid powered", as appropriate, must be used when internal combustion engines are installed in a vehicle.

136. This entry only applies to machinery and apparatus containing hazardous materials as an integral element of the machinery or apparatus. It may not be used to describe machinery or apparatus for which a proper shipping name exists in the § 172.101 Table. Machinery or apparatus may only contain hazardous materials for which exceptions are referenced in Column 8 of the § 172.101 Table and are provided in Part 173, Subpart D, of this subchapter. When transported by aircraft, the machinery or apparatus must be labeled according to each of the hazardous materials contained in the machinery or apparatus. This includes the primary hazard label and any applicable subsidiary risk labels, except that a subsidiary risk label is not required for any subsidiary hazard already indicated by the primary or subsidiary hazard label applied for another substance in the machinery or apparatus. Hazardous materials shipped under this entry are excepted from the labeling requirements of this subchapter unless offered for transportation or transported by air. Orientation markings as prescribed in § 172.3.12, are required only when necessary to ensure that liquid hazardous materials remain in their intended orientation. The machinery or apparatus or the packagings in which they are contained shall be marked "Dangerous goods in machinery" or "Dangerous goods in apparatus", as appropriate, and with the appropriate identification number. For transportation by aircraft, machinery or apparatus may not contain any material forbidden for transportation by passenger aircraft. Hazardous materials in machinery or apparatus are not subject to the placarding

requirements of subpart F of this part. The Associate Administrator for Hazardous Materials Safety may except from the requirements of this subchapter equipment, machinery and apparatus provided:

a. It is shown that it does not pose a significant risk in transportation;

b. The quantities of hazardous materials do not exceed those specified in § 173.4 of this subchapter for the applicable class(es) of hazardous materials contained; and

c. The equipment, machinery or apparatus conforms with § 173.22.1 of this subchapter.

137. Cotton, dry is not subject to the requirements of this subchapter when it is baled in accordance with ISO 8 115, "Cotton Bales-Dimensions and Density" to a density of at least 360 kg/m<sup>3</sup> (22.4lb/ft<sup>3</sup>) and it is transported in a freight container or closed transport vehicle.

138. Lead compounds which, when mixed in a ratio of 1: 1000 with 0.07 hydrochloric acid and stirred for one hour at a temperature of 23°C ±2°C, exhibit a solubility of 5% or less are considered insoluble.

(2) \* \* \*

Code/Special Provisions

\* \* \*

A35. This includes any material which is not covered by any of the other classes but which has an anesthetic, narcotic, noxious or other similar properties such that, in the event of spillage or leakage on an aircraft, extreme annoyance or discomfort could be caused to crew members so as to prevent the correct performance of assigned duties.

\* \* \*

(3) \* \* \*

Code/Special Provisions

\* \* \*

B 101. When intermediate bulk containers are used, only those constructed of metal are authorized.

\* \* \*

#### § 172.102 [Amended]

18. In addition, in § 172.102, the following changes would be made:

a. In paragraph (c)(1), Special Provision 17 would be removed.

b. In paragraph (c)(1), Special Provision 20 would be removed.

c. In paragraph (c)(1), Special Provision 104 would be removed.

d. In paragraph (c)(1), under Special Provision 125, in the fourth sentence, the wording "at least 90%" would be removed and "at least 98%" would be added in its place; and in the last sentence, the wording "less than 98%" would be removed and "less than 90%" would be added in its place.

e. In paragraph (c)(5), Special Provision N9 would be removed.

#### § 172.203 [Amended]

19. In § 172.203, the following changes are made:

a. In paragraph (k) introductory text, in the first sentence, the words "listed in paragraph (k)(3) of this section"

would be removed and "identified by an asterisk (\*) in Column (1) of the § 172.101 Table" would be added in its place.

b. In addition, paragraph (k)(3) would be removed and paragraph (k) (4) would be redesignated as paragraph (k) (3).

#### § 172.400 [Amended]

20. In § 172.400, in the table in paragraph (b), as amended at 62 FR 39405, effective October 1, 1998, the following changes would be made:

a. The entry "6.1 (PC I or II, other than Zone A or B inhalation hazard)" would be removed and "6.1 (PC I or II, other than Zone A or B inhalation hazard, or PG III)" would be added in its place.

b. The entry "6.1 (PG III)" would be removed.

#### § 172.400a [Amended]

21. In § 172.400a, paragraph (d) would be removed.

22. In § 172.405, a new paragraph (c) would be added to read as follows:

#### § 172.405 Authorized label modifications.

(c) For a package containing a Division 6.1 Packing Group III material, the POISON label specified in § 172.430 may be modified to display the text "PG III" below the mid-line of the label, instead of "TOXIC" ("POISON").

23. In § 172.407, paragraph (c)(4) would be revised to read as follows:

#### § 172.407 Label specifications.

(c) \* \* \*

(4) When text indicating a hazard is displayed on a label, the label name must be shown in letters measuring at least 7.6 mm (0.3 inches) in height. For SPONTANEOUSLY COMBUSTIBLE or DANGEROUS WHEN WET labels, the words "Spontaneously" and "When Wet" must be shown in letters measuring at least 5.1 mm (0.2 inches) in height.

\* \* \*

#### § 172.431 [Removed and reserved]

24. Section 172.431 would be removed and reserved.

25. In § 172.504, paragraph (f)(10) would be revised to read as follows:

#### § 172.504 General placarding requirements.

\* \* \*

(f) \* \* \*

(10) For Division 6.1, PG III materials, a POISON placard may be modified to display the text "PG III" below the mid-line of the placard.

\* \* \*

#### § 172.504 [Amended]

26. In § 172.504, as amended at 62 FR 39407, effective October 1, 1998, the following changes would be made:

a. In paragraph (e), in Table 2, the entry "6.1 (PC I or II, other than Zone A or B inhalation hazard)" would be removed and "6.1 (PC I or II, other than Zone A or B inhalation hazard, or PG III)" would be added in its place.

b. In paragraph (e), the entry "6.1 (PG III)" would be removed.

#### § 172.553 [Removed and reserved]

27. Section 172.553 would be removed and reserved.

### PART 173—SHIPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

28. The authority citation for part 173 would continue to read as follows:

Authority: 49 U.S.C. 5 101-5 127, 44701; 49 CFR 1.53.

#### § 173.1 [Amended]

29. In § 173.1, in paragraph (d), in the first sentence, the wording "Recommendations of the United Nations Committee of Experts on the Transport of Dangerous Goods" would be removed and "UN Recommendations" would be added in its place.

#### § 173.2a [Amended]

30. In the § 173.2a, paragraph (b), Precedence of Hazard Table, in column 13, under the column heading "8, II liquid", the following changes would be made:

a. For the entry, "4.3 II", the numeral "8" would be removed and "4.3" would be added in its place.

b. For the entry, "5.1 II", the numeral "8" would be removed and "5.1" would be added in its place.

31. In § 173.25, paragraph (b) would be revised to read as follows:

#### § 173.25 Authorized packagings and overpacks.

\* \* \*

(b) Shrink-wrapped or stretch-wrapped trays may be used as outer packagings for inner packagings prepared in accordance with the limited quantity provisions or consumer commodity provisions of this subchapter, provided that—

(1) Inner packagings are not fragile, liable to break or be easily punctured, such as those made of glass, porcelain, stoneware or certain plastics; and

(2) Each complete package does not exceed 20 kg (44 lbs) gross weight.

\* \* \*

32. In § 173.28, paragraph (c) (2) would be revised and a new paragraph (c)(5) would be added to read as follows:

#### § 173.28 Reuse, reconditioning and remanufacture of packagings.

\* \* \*

(c) \* \* \*

(2) For the purpose of this subchapter, reconditioning of a non-bulk packaging other than a metal drum includes:

(i) Removing all former contents, coatings and labels so that only the original materials of construction remain;

(ii) Replacing all non-integral packaging components including gaskets, closure devices and cushioning and cushioning material;

(iii) Inspecting after cleaning and rejecting packagings with visible damage such as tears, creases or cracks, or damaged threads or closures, or other significant defects; and

(iv) Ensuring that the packagings are restored to a condition that conforms in all respects with the prescribed requirements of this subchapter.

\* \* \*

(5) Packagings which have significant defects which cannot be repaired may not be reused.

\* \* \*

33. In § 173.29, paragraph (b)(2)(iv)(B), would be revised to read as follows:

#### § 173.29 Empty packagings.

\* \* \*

(b) \* \* \*

(2) \* \* \*

(iv) \* \* \*

(B) A Division 2.2 non-flammable gas, other than ammonia, anhydrous, and with no subsidiary hazard, at an absolute pressure less than 280 kPa (40.6 psia); at 20 °C (68 °F); and

\* \* \*

34. In § 173.32b, in paragraph (b)(1), a new sentence would be added at the end of the paragraph to read as follows:

#### § 173.32b Periodic testing and inspection of Specification IM portable tanks.

\* \* \*

(b) \* \* \*

(1) \* \* \* The two and one-half year internal inspection may be waived for portable tanks dedicated to the transportation of a single hazardous material if it is leak tested prior to each filling.

\* \* \*

#### § 173.32b [Amended]

35. In addition, in paragraph (b)(1) and (b) (2), the semicolon at the end of the first sentence would be removed and a period added in its place.

36. In § 173.32c, paragraph (j) would be revised to read as follows:

**§ 173.32c Use of Specification IM portable tanks.**

\* \* \* \*

(j) An IM portable tank may not be loaded with a liquid having a viscosity less than 2,680mm<sup>2</sup>/s, at 20° C or a non-monolithic solid to a filling density of more than 20%, but less than 80%. If a portable tank is divided by partitions or surge plates into compartments of not more than 7,500 liters (1,980 gallons) capacity, this filling restriction does not apply.

\* \* \* \*

37. In § 173.35, the section heading and paragraph (b) would be revised to read as follows:

**§ 173.35 Hazardous materials in intermediate bulk containers (IBCs).**

\* \* \* \*

(b) Initial use and reuse of IBCs. An IBC other than a multiwall paper IBC (13M1 and 13M2) may be reused. If an inner liner is required, the inner liner must be replaced before each reuse. Before an IBC is filled and offered for transportation, the IBC and its service equipment must be given an external visual inspection, by the person filling the IBC, to ensure that:

(1) The IBC is free from corrosion, contamination, cracks, cuts, or other damage which would render it unable to pass the prescribed design type test to which it is certified and marked; and

(2) The IBC is marked in accordance with requirements in § 178.703 of this subchapter. Additional marking allowed for each design type may be present. Required markings that are missing, damaged or difficult to read must be restored or returned to original condition.

\* \* \* \*

**§ 173.56 [Amended]**

38. In § 173.56, in paragraphs (b) (2) (i) and (b) (3) (i), the wording "(TB 700-2, dated December 1989)" would be removed and "(TB 700-2)" would be added in its place.

**§ 173.59 [Amended]**

39. In § 173.59, for the definitions "*Charges, explosive, commercial without detonator.*" and "*Charges, shaped commercial, without detonator.*", the word "commercial" would be removed each place it appears.

40. In § 173.121, paragraph (b)(1)(ii) would be revised to read as follows:

**§ 173.121 Class 3-Assignment of packing group.**

\* \* \* \*

(b) \* \* \*

(1) \* \* \*

(ii) The mixture does not contain any substances with a primary or a subsidiary risk of Division 6.1 or Class 8.

\* \* \* \*

**§ 173.121 [Amended]**

41. In addition, in § 173.121, in paragraph (b)(1)(i), the semicolon at the end of the paragraph would be removed and a period added in its place; and in paragraph (b) (1) (iii), the wording "; and" at the end of the paragraph would be removed and a period added in its place.

**§ 173.159 [Amended]**

42. In § 173.159, in paragraph (g)(2), in the first sentence, immediately following the wording "may be packed in strong", the words "plywood or wooden boxes" would be removed and the words "outer packagings" would be added in their place.

43. Section 173.162 would be revised to read as follows:

**§ 173.162 Gallium.**

(a) Except when packaged in cylinders or steel flasks, gallium must be packaged in packagings which meet the requirements of part 178 of this subchapter at the Packing Group I performance level for transport by aircraft and the Packing Group III performance level for transport by highway, rail and vessel.

(1) Packagings intended to contain liquids consisting of glass, earthenware or rigid plastics with a maximum net mass of 10 kg (22 pounds) each. The inner packagings must be packed in wooden boxes (4C1, 4C2, 4D, 4F), fiberboard boxes (4G), plastics boxes (4H1, 4H2), fiber drums (1 G) or removable head steel and plastic drums or jerricans (1A2, 1H2, 3A2 or 3H2) with sufficient cushioning material to prevent breakage. Either the inner packagings or the outer packagings must have inner liners or bags of strong leakproof and puncture-resistant material impervious to the contents and completely surrounding the contents to prevent it from escaping from the package, irrespective of its position.

(2) In packagings intended to contain liquids consisting of semi-rigid plastic inner packagings of not more than 2.5 kg (5.5 pounds) net capacity each, individually enclosed in a sealed, leak-tight bag of strong puncture-resistant material. The sealed bags must be packed in wooden (4C1, 4C2), plywood (4D), reconstituted wood (4F), fiberboard (4G) or plastic (4H1, 4H2) boxes or in fiber (1 G) or steel (1A2)

drums, which are lined with leak-tight, puncture-resistant material. Bags and liner material must be chemically resistant to gallium.

(3) Cylinders and steel flasks with vaulted bottoms are also authorized.

(b) When it is necessary to transport gallium at low temperatures in order to maintain it in a completely solid state, the above packagings may be overpacked in a strong, water-resistant outer packaging which contains dry ice or other means of refrigeration. If a refrigerant is used, all of the above materials used in the packaging of gallium must be chemically and physically resistant to the refrigerant and must have impact resistance at the low temperatures of the refrigerant employed. If dry ice is used, the outer packaging must permit the release of carbon dioxide gas.

(c) Manufactured articles or apparatuses, each containing not more than 100 mg (0.0035 ounce) of gallium and packaged so that the quantity of gallium per package does not exceed 1 g (0.35 ounce) are not subject to the requirements of this subchapter.

44. In § 173.164, paragraphs (a)(1) through (a)(3) would be revised and paragraph (a) (4) would be added to read as follows:

**§ 173.164 Mercury (metallic and articles containing mercury).**

(a) \* \* \*

(1) In inner packagings of earthenware, glass or plastic containing not more than 3.5 kg (7.7 pounds) of mercury, or inner packagings which are glass ampoules containing not more than 0.5 kg (1.1 pounds) of mercury, or iron or steel quicksilver flasks containing not more than 35 kg (77 pounds) of mercury. The inner packagings or flasks must be packed in steel drums (1A2), steel jerricans (3A2), wooden boxes (4C1, 4C2), plywood boxes (4D), reconstituted wood boxes (4F), fiberboard boxes (4G), plastic boxes (4H2), plywood drums (1D) or fibre drums (1 G).

(2) Packagings must meet the requirements of part 178 of this subchapter at the Packing Group I performance level.

(3) When inner packagings of earthenware, glass or plastic are used, they must be packed in the outer packaging with sufficient cushioning material to prevent breakage.

(4) Either the inner packagings or the outer packagings must have inner linings or bags of strong leakproof and puncture-resistant material impervious to mercury, completely surrounding the contents, so that the escape of mercury

will be prevented irrespective of the position of the package.

\* \* \*

#### § 173.164 [Amended]

45. In addition, in § 173.164, in paragraph (c) introductory text, the wording "not more than 100 mg (0.0035 ounce)" would be removed.

#### § 173.196 [Amended]

46. In § 173.196, paragraph (a)(1)(iii), in the first sentence, the wording "An absorbent material" would be removed and "When the primary receptacle contains liquids, an absorbent material" would be added in its place.

47. Section 173.220 would be revised to read as follows:

#### § 173.220 Internal combustion engines, self-propelled vehicles, and mechanical equipment containing internal combustion engines or wet batteries.

(a) *Applicability.* An internal combustion engine, self-propelled vehicle, or mechanized equipment is subject to the requirements of this subchapter when transported as cargo on a transport vehicle, vessel or aircraft, if —

(1) The engine or fuel tank contains a flammable liquid or gaseous fuel;

(2) It is equipped with a wet electric storage battery; or

(3) It contains other hazardous materials subject to the requirements of this subchapter.

(b) *Flammable liquid fuel.* Engines and flammable liquid fuel tanks are subject to the requirements of this subchapter as follows:

(1) If an engine or flammable liquid fuel tank is not completely drained or has more than 500 ml (17 ounces) of fuel in engine components and fuel lines, it is subject to all applicable requirements of this subchapter.

(2) If an engine or flammable liquid fuel tank is drained and has no more than 500 ml (17 ounces) of fuel in engine components and fuel lines, it is subject to this subchapter with certain exceptions listed in paragraph (g)(2) of this section. For transportation by aircraft, these exceptions are limited to marking, labeling and an emergency response telephone number. The shipment is still subject to all other applicable requirements of this subchapter, such as shipping papers, emergency response information, notification of pilot-in-command, general packaging requirements and the requirements specified in § 173.27.

(3) If an engine or flammable liquid fuel tank (including engine components and fuel lines) is completely drained and sufficiently cleaned of residue and

purged of vapors to remove any potential hazard, it is not subject to any other requirements of this subchapter.

(4) Fuel may remain in engine and tanks installed in self-propelled vehicles and mechanical equipment only under the following conditions:

(i) For transportation by motor vehicle or rail car, the fuel tanks must be securely closed.

(ii) For transportation by vessel the shipment must conform to § 176.905 of this subchapter.

(iii) For transportation by aircraft designed or modified for vehicle ferry operations, the shipment must comply with § 175.305 of this subchapter.

(c) *Flammable gas fuel.* Automobiles, motorcycles, tractors, or other self-propelled vehicles equipped with liquefied petroleum gas or other compressed gas fuel tanks, provided such tanks are securely closed, are not subject to any other requirements of this subchapter for transportation by rail or highway. For transportation by water, see §§ 176.905 and 176.78(k) of this subchapter. For transportation by air, the fuel tank must be removed or emptied and securely closed.

(d) *Wet battery powered or installed.* Wet batteries must either be installed, securely fastened in an upright position, and protected against short circuits and leakage or be removed and packaged separately under § 173.159. Battery powered vehicles, machinery or equipment including battery powered wheel chairs are excepted from the requirements of this subchapter except when transported by air, unless specifically excepted in § 175.10 of this subchapter, or when they contain other hazardous materials not excepted in this section.

(e) *Truck bodies or trailers on flat cars—(1) Flammable liquid powered.* Truck bodies or trailers with automatic heating or refrigerating equipment of the flammable liquid type may be shipped with fuel tanks filled and equipment operating or inoperative, when used for the transportation of other freight and loaded on flat cars as part of a joint rail and highway movement, provided the equipment and fuel supply conform to the requirements of § 177.834(l) of this subchapter and are of a type which has been examined by a person approved by the Associate Administrator for Hazardous Materials Safety.

(2) *Flammable gas powered.* Except as specified in § 173.21, truck bodies or trailers with automatic heating or refrigerating equipment of the gas burning type may be shipped with tanks containing fuel and equipment operating or not operating, when used for the transportation of other freight

and loaded on flat cars as part of a joint rail-highway movement. The heating or refrigerating equipment is considered to be a part of the truck body or trailer and is not subject to any other requirements of this subchapter.

(f) *Other hazardous materials.* The provisions of this subchapter do not apply to items of equipment such as fire extinguishers, airbag inflators or modules, seat-belt pretensioners, other life saving appliances or safety devices and the like which are securely installed in the motor vehicle or mechanical equipment if they are necessary for the operation of the vehicle or equipment, or for the safety of its operator or passengers. All other hazardous materials not excepted in this section must be packaged and transported in accordance with this subchapter.

(g) *Exceptions.* Except as provided in paragraph (f) of this section, shipments made under the provisions of this section—

(1) Are not subject to any other requirements of this subchapter, for transportation by motor vehicle or rail car; and

(2) Are not subject to the requirements of subparts D, E and F (marking, label and placarding, respectively) of part 172 of this subchapter or § 172.604 of this subchapter (emergency response telephone number) of this subchapter for transportation by vessel or aircraft.

48. Section 173.221 would be revised to read as follows:

#### § 173.221 Polymeric beads, expandable and Plastic molding compound.

(a) Non-bulk shipments of polymeric beads or granules, expandable, impregnated with flammable gas or liquid as a blowing agent and plastic molding compound in dough, sheet or extruded rope form must be packed in: wooden (4C1 or 4C2), plywood (4D), fiberboard (4G), reconstituted wood (4F) boxes, plywood drums (1D) or fiber drums (1 G) with sealed inner plastic liners; or, in vapor tight metal or plastic drums (1A1, 1A2, 1B1, 1B2, 1H1 or 1 H2). The packagings need not conform to the requirements for package testing in part 178 of this subchapter, but must be capable of containing any evolving gases from the contents during normal conditions of transportation.

(b) Bulk shipments of polymeric beads or granules, expandable or plastic molding compounds may be packed in plastic film or bags which are placed in steel racks, metal or plastic crates or shrink-wrapped on wood pallets when transported in dedicated vehicles or freight containers. Polymeric beads or granules or plastic molding compounds may also be packed in plastic film or

bags which are then packed in metal, plastic, wood, reconstituted wood or fiberboard boxes. Non-specification portable tanks are also authorized. Bulk packagings must be capable of containing any gases evolving from the contents during normal conditions of transport.

49. Section 173.222 would be revised to read as follows:

**§ 173.222 Dangerous goods in equipment, machinery or apparatus.**

Hazardous materials in machinery or apparatus are excepted from the specification packaging requirements of this subchapter when packaged according to this section. Hazardous materials in machinery or apparatus must be packaged in strong outer packagings unless the receptacles containing the hazardous materials are afforded adequate protection by the construction of the machinery or apparatus. Each package must conform to the packaging requirements of subpart B of this part, except for the requirements in § 173.24 (a) (1) and § 173.27(e), and the following requirements:

(a) If the equipment, machinery or apparatus contains more than one hazardous material, the materials must not be capable of reacting dangerously together.

(b) The nature of the containment must be as follows:

(1) Damage to the receptacles containing the hazardous materials during transport is unlikely: and

(2) In the event of damage to the receptacles containing the hazardous materials, no leakage of the hazardous materials from the equipment, machinery or apparatus is possible. A leakproof liner may be used to satisfy this requirement.

(c) Receptacles containing hazardous materials must be secured and cushioned so as to prevent their breakage or leakage and so as to control their movement within the equipment, machinery or apparatus during normal conditions of transportation. Cushioning material must not react dangerously with the content of the receptacles. Any leakage of the contents must not substantially impair the protective properties of the cushioning material.

(d) Receptacles for gases, their contents and filling densities must conform to the applicable requirements of this subchapter, unless otherwise approved by the Associate Administrator for Hazardous Materials Safety.

(e) Quantity limitations. For air transport, the total net quantity of hazardous materials contained in one item of equipment, machinery or apparatus must not exceed the following:

(1) 1 kg (2.2 pounds) in the case of solids:

(2) 0.5 L (0.3 gallons) in the case of liquids:

(3) 0.5 kg (1.1 pounds) in the case of Division 2.2 gases: and

(4) A total quantity of not more than the aggregate of that permitted in paragraphs (e) (1) through (e) (3) of this section, for each of the categories material in the package, when a package contains hazardous materials in two or more of the categories in paragraphs (e) (1) through (e) (3) of this section and is offered for air transport.

(f) When a package contains hazardous materials in two or more of the categories listed in paragraphs (e)(1), (e) (2) and (e) (3) of this section, the total quantity required by § 172.202(c) of this subchapter to be entered on the shipping paper must be the aggregate quantity of all hazardous materials, expressed as net mass.

**§ 173.224 [Amended]**

50. in § 173.224, in the introductory text of paragraph (c) (3). the word "product" would be added immediately before the word "evaluation".

51. In § 173.225, in paragraph (b). in the Organic Peroxides Table, remove or add, in the appropriate alphabetical order, the following entries to read as follows:

**§ 173.225 Packaging requirements and other provisions for organic peroxides.**

\* \* \* \* \*

(b) \* \* \*

## Organic Peroxide Table

Technical name	ID number	Concentration (mass%)	Diluent mass (%)			Water (mass%)	Packing method	Temperature (°C)		Notes
			A	B	I			Control	Emergency	
(1)	(2)	(3)	(4a)	(4b)	(4c)	(5)	(6)	(7a)	(7b)	(8)
[REMOVE:] Dibenzoyl peroxide [as a paste] [ADD:]	*	*	*	*	*	*	*			
	Exempt	≤50	≥14			≥18	Exempt			
isopropyl sec-butyl peroxydicarbonate and Di-sec-butyl peroxydicarbonate and Di-isopropyl peroxydicarbonate.	UN3115	≤32+≤15 – 18+≤ – 12 – 15	≥38	*	*		OP7	– 20	– 10	
	*	*	*	*	*		*			

\* \* \* \* \*

**§ 173.225 [Amended]**

52. In addition, in § 173.225, in paragraph (b), in the Organic Peroxides Table, the following changes would be made:

a. For the entry, "tert-Butyl cumyl peroxide" (UN31 06), in Column (4b), the reference "≥58" would be removed and in Column (4c), "258" would be added.

b. For the entry, "tert-Butyl hydroperoxide" (UN31 05), in Column (7b), the references "4, 13" would be removed and in Column (8), "4, 13" would be added.

c. For the entry, "tert-Butyl monoperoxymaleate [as a paste]" (UN3 1 08), in Column (3), the mass percent "252" would be revised to read "≤52".

d. For the entry, "tert-Butyl monoperoxymaleate [as a paste]" (UN31 10), in Column (3), the mass percent "242" would be revised to read "142".

e. For the entry, "tert-Butyl peroxyacetate" (UN31 09), in Column (3), the mass percent "232" would be revised to read "≤32".

f. For the entry, "tert-Butyl peroxyacetate" (UN3 119), in Column (3), the mass percent "≥32" would be revised to read "132".

g. For the entry, "tert-Butyl peroxyacetate" (UN31 09), in Column (3), the mass percent "222" would be revised to read "≤22".

h. For the entry, "tert-Butyl peroxybenzoate" (UN31 03), in Column (4a), the diluent type "223" would be revised to read "≤23".

i. For the entry, "tert-Butyl peroxybenzoate" (UN3 105), in Column (3), the mass percent "<52-77" would be revised to read ">52-77".

j. For the entry, "tert-Butyl peroxy-2-ethylhexanoate" (UN31 17), in Column (3), the mass percent "552" would be revised to read ">32-52".

k. For the entry, "tert-Butyl peroxy-2-ethylhexanoate" (UN31 19), in Column (6), the packing method "1 BC" would be revised to read "IBC".

l. For the entry, "Cumyl hydroperoxide" (UN31 09), in Column (3), the mass percent "≥90" would be revised to read "≤90".

m. For the entry, "1,1-Di-(tert-butylperoxy)cyclohexane" (UN31 03), in Column (4a), the diluent type "≤20" would be revised to read "≥20".

n. For the entry, "Di-n-butyl peroxydicarbonate" (UN3 115), in Column (7b), the emergency temperature "5" would be revised to read "-5".

o. For the entry, "Diethyl peroxydicarbonate" (UN3 115), in

Column (7a), the control temperature ">10" would be revised to read "-10".

p. For the entry, "2,5-Dimethyl-2,5-di-(tert-butylperoxy) hexyne-3" (UN3 103), in Column (4a), the diluent type "≥14" would be added.

q. For the entry, "2,5-Dimethyl-2,5-dihydroperoxyhexane" (UN3 104), Column (7a), the reference "OP6" would be removed and in Column (6), "OP7" would be added.

r. For the entry, "1,1-Dimethyl-3-hydroxybutylperoxyneohexanoate" (UN31 17), in Column (4b), the diluent type "248" would be removed and in Column (4a), "248" would be added.

s. For the entry, "3,3,6,6,9,9-Hexamethyl-1,2,4,5-tetraoxacyclononane" (UN3 106), in Column (4b), the diluent "≥48" would be removed; in Column (4c), "248" would be added; in Column (5), the reference "OP7" would be removed; and, in Column (6) "OP7" would be added.

t. For the entry, "Peroxyacetic acid, type F, stabilized" (UN3109), in Column (8), the reference "13, 20" would be removed and "7, 13, 20" would be added in its place.

u. For the entry, "Pinanyl hydroperoxide" (UN31 05), in Column (3), the mass percent "256-1 00" would be revised to read "56-1 00".

53. In § 173.225, in paragraph (c)(2), the word "product" would be added immediately before the word "evaluation".

53a. In § 173.243, in paragraph (e)(2), the period at the end of the sentence would be revised to read "; or" and a new paragraph (e)(3) would be added to read as follows:

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

\* \* \* \* \*

(e) \* \* \*

(3) The subsidiary hazard is Class 8, Packaging Group, III.

**§ 173.301 [Amended]**

54. In § 173.301, in paragraph (i), the wording "and § 171.12(c) of this subchapter" would be added immediately after the words "in paragraph (j) of this section".

55. In § 173.306, new paragraphs (f)(4) and (f)(5) would be added to read as follows:

**§ 173.306 Limited quantities of compressed gases.**

\* \* \* \* \*

(f) \* \* \*

(4) Accumulators intended to function as shock absorbers, struts, gas springs, pneumatic springs or other impact or energy-absorbing devices are not subject

to the requirements of this subchapter provided each:

(i) Has a gas space capacity not exceeding 1.6 liters and a charge pressure not exceeding 280 bar, where the product of the capacity expressed in liters and charge pressure expressed in bars does not exceed 80 (i.e., 0.5 liter gas space and 160 bar charge pressure, 1 liter gas space and 80 bar charge pressure, 1.6 liter gas space and 50 bar charge pressure, 0.28 liter gas space and 280 bar charge pressure):

(ii) Has a minimum burst pressure of 4 times the charge pressure at 20°C for products not exceeding 0.5 liter gas space capacity and 5 times the charge pressure for products greater than 0.5 liter gas space capacity:

(iii) Is manufactured from material which will not fragment upon rupture:

(iv) Design type has been subjected to a fire test demonstrating that the article relieves its pressure by means of a fire degradable seal or other pressure relief device, such that the article will not fragment and that the article does not rocket: and

(v) Accumulators must be manufactured under a written quality assurance program which monitors parameters controlling burst strength, burst mode and performance in a fire situation as specified in paragraphs (f) (4) (i) through (f) (4) (iv) of this section. A copy of the quality assurance program must be maintained at each facility at which each accumulator is manufactured.

(5) Accumulators which do not conform to the provisions of paragraphs (f) (1), (2), (3) or (4) of this section, may be transported subject to the approval of the Associate Administrator for Hazardous Materials Safety.

\* \* \* \* \*

**§ 173.306 [Amended]**

56. In addition, in § 173.306, paragraph (d) would be removed and reserved.

**PART 174—CARRIAGE BY RAIL**

57. The authority citation for part 174 would continue to read as follows:

Authority: 49 U.S.C. 5101–5127; 49 CFR 1.53.

58. In § 174.81, a new paragraph (g)(3)(vi) would be added to read as follows:

**§ 174.81 Segregation of hazardous materials.**

\* \* \* \* \*

(g) \* \* \*

(3) \* \* \*

(vi) "6" means explosive articles in compatibility group G, other than

**§ 177.848 Segregation of hazardous materials.**

\* \* \* \*

(g) \* \* \*

(vi) "6" means explosive articles in compatibility group G, other than fireworks and those requiring special stowage, may be stowed with articles of compatibility groups C, D and E, provided no explosive substances are carried in the same vehicle.

\* \* \* \*

**§ 177.848 [Amended]**

72. In addition, in § 177.848, in the paragraph (f) Compatibility Table for Class 1 (Explosive) Materials, the following changes would be made:

- a. For the entry "C", under the Column (1) heading, "Compatibility Group", in Column G, the letter "X" would be revised to read "6".
- b. For the entry "D", under the Column (1) heading, "Compatibility Group", in Column G, the letter "X" would be revised to read "6".
- c. For entry "E", under the Column (1) heading, "Compatibility Group", in Column G, the letter "X" would be revised to read "6".
- d. For the entry "G", under the Column (1) heading, "Compatibility Group", in Columns "C", "D" and "E", the letter "X" would be revised to read "6" each place it appears.

**PART 178—SPECIFICATIONS FOR PACKAGINGS**

73. The authority citation for part 178 would continue to read as follows:

Authority: 49 U.S.C. 5101-5127; 49 CFR 1.53.

**§ 178.270-3 [Amended]**

74. In § 178.270-3, in paragraph (e), in the second sentence, the reference "ISO 82-1 974(e)" would be removed and "ISO 82-1 974(E)" would be added in its place.

**§ 178.509 [Amended]**

75. In § 178.509, in paragraph (b)(1), in the second sentence, the wording "when approved by the Associate Administrator for Hazardous Materials Safety" would be added immediately following the words "may be used".

76. In § 178.703, the section heading and paragraph (b)(6)(ii) would be revised to read as follows:

**§ 178.703 General intermediate bulk container (IBC) standards.**

\* \* \* \*

(b) \* \* \*

(6) \* \* \*

(ii) When a composite IBC is designed in such a manner that the outer casing is intended to be dismantled for

transport when empty (such as for the return of the IBC for reuse to the original consignor), each of the parts intended to be detached when so dismantled must be marked with the month and year of manufacture and the name or symbol of the manufacturer.

77. In § 178.813, in paragraph (b), a sentence would be added to the end of the paragraph to read as follows:

**§ 178.813 Leakproofness test.**

\* \* \* \*

(b) \* \* \* The inner receptacle of a composite IBC may be tested without the outer packaging provided the test results are not affected.

\* \* \* \*

**PART 180—CONTINUING QUALIFICATION AND MAINTENANCE OF PACKAGINGS**

78. The authority citation for part 180 continues to read as follows:

Authority: 49 U.S.C. 5101-5127; 49 CFR 1.53.

79. In § 180.352, the section heading, paragraphs (b)(1), (b)(2), (b)(3) introductory text and (c) would be revised to read as follows:

**§ 180.352 Requirements for retest and inspection of intermediate bulk containers (IBCs).**

- \* \* \* \*
- (b) \* \* \*
- (1) The leakproofness test prescribed in § 178.813 of this subchapter must be conducted every 2.5 years starting from the date of manufacture or the date of a repair conforming to paragraph (c)(1) of this section marked on each IBC intended to contain liquids or solids that are loaded or discharged under pressure.
- (2) An external visual inspection must be conducted initially after production and every 2.5 years starting from the date of manufacture or the date of a repair conforming to paragraph (c)(1) of this section marked on each IBC to ensure that:
- (i) The IBC is marked in accordance with requirements in § 178.703 of this subchapter. Missing or damaged markings, or markings difficult to read must be restored or returned to original condition.
  - (ii) Service equipment is fully functional and free from damage which may cause failure. Missing, broken, or damaged parts must be repaired or replaced.
  - (iii) The IBC, including the outer packaging if applicable, is free from damage which reduces its structural integrity. The IBC must be externally inspected for cracks, warpage, corrosion

or any other damage which might render the IBC unsafe for transportation. An IBC found with such defects must be removed from service. The inner receptacle of a composite IBC must be removed from the outer IBC body for inspection unless the inner receptacle is bonded to the outer body or unless the outer body is constructed in such a way (e.g., a welded or riveted cage) that removal of the inner receptacle is not possible without impairing the integrity of the outer body. Defective inner receptacles must be replaced with a receptacle meeting the design type of the IBC or the entire IBC must be replaced. For metal IBCs, thermal insulation must be removed to the extent necessary for proper examination of the IBC body.

(iv) Each flexible IBC must be inspected to ensure that:

(A) Lifting straps if used, are securely fastened to the IBC in accordance with the design type.

(B) Seams are free from defects in stitching, heat sealing or gluing which would render the IBC unsafe for transportation of hazardous materials. All stitched seam-ends must be secure.

(C) Fabric used to construct the IBC is free from cuts, tears and punctures. Additionally, fabric must be free from scoring which may render the IBC unsafe for transport.

(v) Each fiberboard IBC must be inspected to ensure that:

(A) Fluting or corrugated fiberboard is firmly glued to facings.

(B) Seams are creased and free from scoring, cuts, and scratches.

(C) Joints are appropriately overlapped and glued, stitched, taped or stapled as prescribed by the design. Where staples are used, the joints must be inspected for protruding staple-ends which could puncture or abrade the inner liner. All such ends must be protected before the IBC is authorized for hazardous materials service.

(vi) Each wooden IBC must be inspected to ensure that:

(A) End joints are secured in the manner prescribed by the design.

(B) The IBC walls are free from defects in wood. Inner protrusions which could puncture or abrade the liner must be covered.

(3) Each metal, rigid plastic and composite IBC must be internally inspected at least every five years to ensure that the IBC is free from damage which might reduce its integrity.

\* \* \* \*

(c) *Requirements applicable to repair of intermediate bulk containers.* (1) Except for flexible and fiberboard IBCs and the bodies of rigid plastic and



composite IBCs, damaged IBCs may be repaired and the inner receptacles of composite packagings may be replaced and returned to service provided:

(i) The repaired IBC conforms to the original design type:

(ii) An IBC intended to contain liquids or solids that are loaded or discharged under pressure is subjected to a leakproofness test as specified in § 178.813 of this subchapter and is marked: and

(iii) The IBC is subjected to the internal and external inspection requirements as specified in paragraph (b) of this section.

(2) Except for flexible and fiberboard IBCs, the structural equipment of an IBC may be repaired and returned to service provided:

(i) The repaired IBC conforms to the original design type: and

(ii) The IBC is subjected to the internal and external inspection requirements as specified in paragraph (b) of this section.

(3) Service equipment may be replaced provided:

(i) The repaired IBC conforms to the original design type:

(ii) The IBC is subjected to the external visual inspection requirements

as specified in paragraph (b) of this section: and

(iii) The proper functioning and leak tightness of the service equipment, if applicable, is verified.

\* \* \* \* \*

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Alan I. Roberts,

*Associate Administrator for Hazardous*

*Materials Safety.*

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