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Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 171, 172, 173, et al.

Hazardous Materials: Corrections and Response to Administrative Appeals (HM-215K, HM-215L, HM-218G and HM-219); Final Rule

**DEPARTMENT OF TRANSPORTATION****Pipeline and Hazardous Materials Safety Administration****49 CFR Parts 171, 172, 173, 175, 176, and 178**

[Docket No. PHMSA–2013–0041]

RIN 2137–AF01

**Hazardous Materials: Corrections and Response to Administrative Appeals (HM–215K, HM–215L, HM–218G and HM–219).****AGENCY:** Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.**ACTION:** Final rule.

**SUMMARY:** This final rule corrects editorial errors and amends certain requirements in response to administrative appeals submitted by persons affected by certain final rules published in the **Federal Register**.

**DATES:** *Effective date:* The effective date of this document is October 31, 2013.

*Voluntary compliance date:* PHMSA is authorizing voluntary compliance beginning October 31, 2013.

*Delayed compliance date:* Unless otherwise specified, compliance with the amendments adopted in this final rule is required beginning January 1, 2014.

*Incorporation by reference date:* The incorporation by reference of certain publications listed in this rule is approved by the Director of the Federal Register as of October 31, 2013.

**FOR FURTHER INFORMATION CONTACT:** Aaron Wiener or Shane Kelley, International Standards, telephone (202) 366–8553, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue SE., 2nd Floor, Washington, DC 20590–0001.

**SUPPLEMENTARY INFORMATION:** This final rule corrects editorial errors and amends certain requirements in response to administrative appeals submitted by persons affected by the final rules published under Docket Numbers: PHMSA–2009–0126 (HM–215K) [78 FR 1101], PHMSA–2012–0027 (HM–215L) [78 FR 987], PHMSA–2011–0138 (HM–218G) [78 FR 15303], and PHMSA–2011–0142 (HM–219) [78 FR 14702.]

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**I. Background****A. HM–215K and HM–215L**

On January 7, 2013, the Pipeline and Hazardous Materials Safety Administration (PHMSA) published final rules under Docket Numbers PHMSA–2009–0126 (HM–215K) [78 FR 1101] and PHMSA–2012–0027 (HM–215L) [78 FR 987] to maintain alignment with international standards by incorporating various amendments, including changes to proper shipping names, hazard classes, packing groups, special provisions, packaging authorizations, air transport quantity limitations, and vessel stowage requirements. These revisions were necessary to harmonize the Hazardous Materials Regulations (HMR; 49 CFR parts 171–180) with recent changes made to the International Maritime Dangerous Goods Code (IMDG), the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TI), and the United Nations Recommendations on the Transport of Dangerous Goods—Model Regulations (UN Model Regulations). This final rule responds to four appeals and certain comments concerning amendments in the January 7, 2013 final rules. This rulemaking also corrects various errors made during the development of the rule and the printing process. Because the amendments adopted herein impose no new regulatory burden on any person, these amendments are being made effective without the usual 30-day delay following publication. In addition, because these amendments do not impose new requirements, notice and public comment procedures are unnecessary.

**B. HM–218G**

On April 26, 2012, PHMSA published an NPRM under Docket PHMSA 2011–0138 [77 FR 24885] (HM–218G) that proposed amendments to update and

clarify existing requirements of the HMR. The NPRM and the March 11, 2013 final rule are part of the Department of Transportation's (DOT) Retrospective Regulatory Review (RRR) designed to identify ways to improve the HMR. The NPRM proposed amendments to update and clarify existing requirements by incorporating changes into the HMR based on PHMSA initiatives. We identified the proposed amendments through an extensive review of the HMR and letters of interpretation that we had previously issued. In addition, the NPRM proposed to incorporate a special permit with a longstanding history of safety into the HMR, and included a response to a petition for rulemaking. This rulemaking makes editorial changes to correct errors made during the development of the HM–218G rule.

**C. HM–219**

On May 24, 2012, PHMSA published an NPRM under Docket PHMSA 2011–0142 [77 FR 30976] (HM–219). The NPRM and the March 7, 2013 final rule are part of the DOT's RRR designed to identify ways to improve the HMR. The Administrative Procedure Act (APA) requires Federal agencies to give interested persons the right to petition an agency to issue, amend, or repeal a rule (5 U.S.C. 553(e)). Under PHMSA's rulemaking procedures, you can request a change to the HMR. 49 CFR 106.95 permits you to ask PHMSA to add, amend, or delete a regulation by filing a petition for rulemaking containing adequate support for the requested action. In the NPRM, we responded to eight petitions for rulemaking submitted to us by various stakeholders. We proposed to amend the HMR to update, clarify, or provide relief from miscellaneous regulatory requirements at the request of the regulated community. This rulemaking responds to administrative appeals and makes editorial corrections.

**II. Administrative Appeals****A. HM–215K**

In response to the January 7, 2013 final rule, HMT Associates, L.L.C. (HMT) submitted an administrative appeal as follows:

1. Revised § 173.167 and Reference Therein to § 173.27(f)(2)

In the January 7, 2013 final rule, PHMSA revised section 173.167 for consistency with the ICAO TI. Specifically, the amendments were intended to mirror the stand-alone closure requirements and other provisions prescribed in Packing

Instruction Y963 of the ICAO TI applicable to consumer commodities prepared and intended for transportation by aircraft. In order to accomplish this, packages of consumer commodities prepared under the provisions of § 173.167 required exclusion from the provisions of Subpart B of Part 173 (to include § 173.27).

*PHMSA Response:*

In its administrative appeal, HMT correctly points out that the revisions to § 173.167 in the January 7, 2013 final rule inadvertently provided the opposite effect by excepting such packages from the requirements of Subpart B of Part 173 *except for* § 173.27(f)(2) (emphasis added). Therefore, a correction is necessary and warranted because § 173.27(f)(2)(iv) requires a secondary means of closure for combination packages of liquid limited quantity material. Thus, we are granting HMT's administrative appeal and revise §§ 173.24(i) and 173.167 accordingly for consumer commodities described under ID8000.

**2. Export Shipments of Consumer Commodities (ID8000)**

As previously stated, in the January 7, 2013 final rule, § 173.167 was revised for consistency with the consumer commodity (ID8000) provisions under Packing Instruction Y963 of the ICAO TI. As a result, unintended consequences were forced upon U.S. exporters of such articles and substances. For example, in its administrative appeal, HMT points out that an exporter must comply with:

- Section 171.22(g)(5) when using international standards to prepare shipments;
- Section 171.22(g)(5) prescribes compliance with the general packaging requirements in §§ 173.24 and 173.24(a);
- Section 173.24(i) prescribes compliance with § 173.27; and
- Section 173.27 requires a secondary means of closure on inner packagings of combination packages containing liquids. Such a requirement is inconsistent with Packing Instruction Y963 of the ICAO TI.

*PHMSA Response:*

We agree with HMT. In this final rule, we are granting its administrative appeal by revising §§ 173.24(i) and 173.167. Consequently, revising § 171.22(g)(5) is not necessary.

**B. HM-215L**

In response to the January 7, 2013 final rule, administrative appeals were submitted by the following companies and organizations:

Dangerous Goods Advisory Council, Inc. (DGAC).  
 Kilofarad International.  
 Sporting Arms & Ammunition  
 Manufacturer's Institute (SAAMI).

These administrative appeals are discussed in detail below.

**1. Lithium Cell and Battery Design Tests**

PHMSA received one administrative appeal from DGAC related to our adoption of Amendment 1 to the 5th revised edition of the UN Manual of Tests and Criteria. Specifically, DGAC is concerned that we did not provide in § 173.185(a)(1) for the continued manufacture of lithium cells and batteries of a type tested in accordance with the 5th revised edition of the UN Manual of Tests and Criteria. The DGAC appeal says that this action would seem to require that all cells and batteries first transported after January 1, 2006, will have to be of a type tested in conformance with the newly incorporated edition of the UN Manual of Tests and Criteria.

DGAC recommends that PHMSA clarify that, irrespective of the January 1, 2006 date in § 173.185(a)(1), newly manufactured cells and batteries of a type successfully tested to the UN Manual of Tests and Criteria, 3rd revised edition, Amendment 1, or a later edition, may be transported without the need for the cell or battery type to be retested and that cells and batteries already distributed and tested to a previous edition of the UN Manual of Tests and Criteria may continue to be transported.

*PHMSA Response:*

DGAC correctly points out that we did not, consistent with previous practice, include a grandfather provision for cells and batteries of a type that meets the 5th revised edition. While this does not change our intent to continue to permit the continued manufacture and transportation of lithium cells and batteries of a type meeting the requirements of a previously authorized edition of the UN Manual of Tests and Criteria, we agree this may result in confusion and unnecessary retesting of previously validated designs.

In this final rule, we are accepting DGAC's appeal. We are adopting its recommendation by adding a clarifying amendment to § 173.185. This amendment will provide a straightforward means of permitting the continued manufacture and transport of lithium cell and battery designs that were tested in accordance with the version of the UN Manual of Tests and Criteria effective when the cell/battery was first manufactured.

**2. Capacitors**

PHMSA received administrative appeals from DGAC and Kilofarad International relating to § 173.176. This section was added in the January 7, 2013 final rule (HM-215L) and prescribes the requirements for capacitors. DGAC and Kilofarad International contend that § 173.176 does not align with the ICAO TI, in that an exception for short circuit protection for a capacitor, or a capacitor in a module with an energy storage capacity less than or equal to 10 Wh, provided in special provision of A186 of the ICAO TI, is not provided in § 173.176.

*PHMSA Response:*

Upon review, we agree and grant the appeals of DGAC and Kilofarad International as they pertain to § 173.176. In this final rule, we are correcting this oversight by revising paragraphs (a)(2)(i) and (a)(2)(ii) of § 173.176 to maintain consistency with the ICAO TI. A detailed discussion of this change is included in the Section-by-Section Review for § 173.176.

**3. Class 1 Appeal (Various)**

PHMSA received an administrative appeal from SAAMI regarding various amendments in HM-215L made to requirements for transporting certain Class 1 (explosive) materials. The SAAMI appeal consists of eight separate issues that are summarized and discussed below.

SAAMI notes that in HM-215L the word "None" was removed from Column (6) label codes and replaced with "1.4S" for the entries for UN0012, "Cartridges, small arms" and UN0014, "Cartridges, small arms, blank" in the Hazardous Materials Table (HMT). SAAMI notes that there was no discussion of this change in the preamble to the final rule and that the change was not proposed in the NPRM. SAAMI asks if these changes were inadvertent. We acknowledge that there were inadvertent changes, and therefore we are putting the word "None" back in Column (6) for these two entries.

SAAMI states that for the HMT entry UN0323, "Cartridges, power device" the reference to § 173.63 was removed from Column (8A) and replaced with the word "None." SAAMI requests that PHMSA reinsert the reference to § 173.63 in Column (8A), as the removal of this reference breaks the connection to the ORM-D provisions for this table entry. We agree, and we will reinsert the reference.

In HM-215L, several changes were made to the "Cartridges, small arms" and "Cartridges, power device" HMT entries to ensure these articles would

not be offered as ORM-D-AIR shipments. These HMT entries had Column (9B) quantity limitations for cargo aircraft revised from "30 kg" to "Forbidden" and a new Special Provision 222 was assigned, which states that shipments offered for transport by aircraft may not be reclassified as ORM-D. SAAMI notes in its appeal that these changes were not applied consistently to all ORM-D entries in the HMT, and requests we make similar changes to the ORM-D "Consumer commodity" HMT entry for consistency. We agree, and we are amending the HMT entry for "Consumer commodity" by adding Special Provision 222 to Column (7) and replacing "30 kg" with "Forbidden" in Column (9B).

SAAMI requests that the word "None" should be deleted and left blank in Column (4) for the ORM-D "Cartridges, power device" entry to be consistent with the ORM-D entries for "Cartridges, small arms" and "Consumer commodity". We agree and we will delete the word "None" and leave the column blank for this entry.

SAAMI notes that the packing group entries in Column (5) for UN0501 and UN0509 in the HMT are blank, but for consistency with the other Class 1 (explosive) entries these should be changed to "II". We agree, and we are granting SAAMI's appeal on this issue.

The SAAMI appeal asks that we clarify section 173.63(b) to ensure the terms "Cartridges, power device (used to project fastening devices) and "Cartridges, power device," are appropriately identified within the section. We agree that some clarifying amendments are needed to § 173.63 to ensure proper shipment of "Cartridges, power device" and "Cartridges, power device (used to project fastening devices)."

SAAMI requests that clarifying text be added to indicate that packages properly prepared in accordance with the requirements of § 173.63(b) receive relief from the loading limits in § 175.75. It was never our intent to subject these shipments to these requirements when they have historically received relief from the accessibility requirements of § 175.75. A shipment of UN0012, UN0014, or UN0055 properly packaged and marked in accordance with § 173.63(b), is excepted from the requirements of § 175.75(c) and (e)(1) if it is declared on air transport shipping papers as a limited quantity or not. We agree, and we are granting SAAMI's appeal on this issue by amending the list of materials that are excepted from the inaccessible loading limits in § 175.75.

SAAMI contends that the following language, added to § 173.63 in the January 7, 2013 final rule (HM-215L), constitutes a new requirement for limited quantities of small arms ammunition to be marked with the proper shipping when transported by air that was not required by the final rule published on January 19, 2011 (76 FR 3308, HM-215K):

In addition, packages containing such articles offered for transportation by aircraft must be marked with the proper shipping name as prescribed in the § 172.101 Hazardous Materials Table of this subchapter.

We disagree. The addition of the above language in the January 7, 2013 final rule (HM-215L) clarified that for transportation by air, these articles are required to be marked with the proper shipping name. This clarification did not impose a new or additional marking requirement. The requirement for packages containing these articles to be marked with the proper shipping name, when transported by air, was included in the January 19, 2011 (76 FR 3308, HM-215K) final rule, which provided in § 173.63, "Packages containing such articles must be marked as prescribed in § 172.315." Section 172.315(a) further provides, "Except for transportation by aircraft or as otherwise provided in this subchapter, a package containing a limited quantity of hazardous material is not required to be marked with the proper shipping name and identification (ID) number when marked in accordance with the white square-on-point limited quantity marking \* \* \*". It is clear that under the final rule published on January 19, 2011 (76 FR 3308, HM-215K), packages containing these articles were not excepted from the requirement to be marked with the proper shipping name when transported by air. In addition, this requirement is consistent with the ICAO TI that also requires packages containing these articles to be marked with the proper shipping name. Accordingly, we are denying SAAMI's appeal as it relates to this issue.

#### C. HM-219

In response to the March 7, 2013 final rule, administrative appeals were submitted by the following companies and organizations:

DGAC.  
SAAMI.  
Reusable Industrial Packing Association (RIPA).

#### 1. Smokeless Powder, Division 1.4C (P-1559)

Section 173.171 of the HMR allows smokeless powder for small arms that

has been classed as Division 1.3C (Explosive) to be reclassified for domestic transportation as a Division 4.1 (Flammable Solid) material for transportation by motor vehicle, rail car, vessel, or cargo-only aircraft, subject to certain conditions. In a final rule published on January 14, 2009 under Docket Nos. PHMSA-2007-0065 (HM-224D) and PHMSA-2008-0005 (HM-215J), we added a new description to the HMT for UN0509, "Powder, smokeless, Division 1.4C." However, the rulemaking did not extend the exception provided for Division 1.3C in § 173.171 to Division 1.4C materials.

SAAMI, in a petition (P-1559), requested that we amend § 173.171 to allow Division 1.4C smokeless powder to be reclassified as a Division 4.1 material. SAAMI sought, with proper examination and approval, to allow a Division 1.4C material which, by definition (see § 173.50), poses the lesser safety risk when compared with Division 1.3 explosives, to be reclassified as a Division 4.1 material.

We included SAAMI's proposal, with some modifications, in the HM-219 NPRM. The petition asked that we amend § 173.171(a) by adding the text "and 1.4C" after the text "1.3." In the HM-219 NPRM, we revised § 173.171 to address Division 1.4C explosives and added a new separate paragraph for Division 1.4C explosives to ensure that the allowable net mass in the combination packagings did not exceed the net mass of the material that had been examined and approved. In addition, we proposed to revise Special Provision 16 in § 172.102 to reflect the addition of Division 1.4C explosives. We received a comment to the NPRM from SAAMI stating that they:

[H]ave studied this proposed change, and find that the sole effect is to allow a flammable solid which emanated from a Division 1.4 classification to exceed the current eight pound limit per inner package. Unless a need for this change is substantiated, we see no reason why the flammable solid classification limit for inner packages should be amended. Furthermore this would be unenforceable in the field.

We considered this and the other comments to the NPRM, and published a final rule on March 7, 2013, under Docket Number PHMSA-2011-0142 (HM-219). With regard to the amendments adopted in the final rule for smokeless powder for small arms we modified the amendments proposed in the NPRM as follows:

- Special Provision 16 of § 172.102 was revised to read: "This description applies to smokeless powder and other propellant powders that are used as powder for small arms and have been

classed as Division 1.3C and 1.4C and reclassified to Division 4.1 in accordance with § 173.56 and § 173.58 of this subchapter.”

- The introductory paragraph of § 173.171 was revised to read: “Powders that have been classed in Division 1.3 or Division 1.4C may be reclassified in Division 4.1, for domestic transportation by motor vehicle, rail car, vessel, or cargo-only aircraft, subject to the following conditions.”

- Section 173.171(a) was revised to read: “Powders that have been approved as Division 1.3C or Division 1.4C may be reclassified to Division 4.1 in accordance with §§ 173.56 and 173.58 of this part.”

- Section 173.171(c) was revised to read: “Only combination packagings with inner packagings not exceeding 3.6 kg (8 pounds) net mass and outer packaging of UN 4G fiberboard boxes meeting the Packing Group I standards are authorized. Inner packagings must be arranged and protected so as to prevent simultaneous ignition of the contents. The complete package must be of the same type that has been examined as required in § 173.56 of this part.”

- Section 173.171(d) was revised to read: “The net weight of smokeless powder in any one box (one package) must not exceed 7.3 kg (16 pounds).”

*PHMSA Response:*

On March 17, 2013, SAAMI submitted an appeal to the regulatory changes adopted in the HM–219 final rule with respect to smokeless powder. SAAMI requested that we remove “all changes in the final rule which were not in the proposed rule, except those changes which deleted extraneous text from the proposed rule in response to SAAMI’s comments.” SAAMI also noted in its appeal that HM–219 inadvertently showed “Forbidden” in Column (9B) in conjunction with the listing in the HMT for UN0509, “Smokeless powder, Division 1.4C.”

SAAMI appealed the wording in the HM–219 final rule of Special Provision 16. It indicated that it should read as it did in the NPRM, which was: “[t]his description applies to smokeless powder and other solid propellants that are used as powder for small arms and have been classed as Division 1.3, 1.4 and 4.1 in accordance with § 173.56 of this subchapter.” We revised Special Provision 16 in the final rule because it was our intent to clearly indicate that only smokeless powder or propellant in powder form may qualify for reclassification as Division 4.1, and ensure that powders that have hazard properties different from “propellants” could not be reclassified into Division 4.1. SAAMI indicated that the

introductory text in § 173.171 should read as follows:

Smokeless powder for small arms which has been classed in Division 1.3 or Division 1.4 may be reclassified in Division 4.1, for domestic transportation by motor vehicle, rail car, vessel, or cargo-only aircraft, subject to the following conditions:

As with Special Provision 16, by changing the terminology in the final rule from “solid propellants” to “propellant powders” it was our intent to clearly indicate that only smokeless powder or propellant in powder form may qualify for reclassification as Division 4.1, and we wanted to ensure that powders that have hazard properties different from “propellants” could not be reclassified into Division 4.1. In the HM–219 final rule, we had revised the language in § 173.171(a) to read: “Powders that have been approved as Division 1.3C or Division 1.4C may be reclassified to Division 4.1 in accordance with §§ 173.56 and 173.58 of this part.” SAAMI indicated that § 173.171(a) should read:

(a) The powder must be examined and approved for a Division 1.3 or Division 1.4 and Division 4.1 classification in accordance with §§ 173.56 and 173.58 of this part.

As indicated in the HM–219 final rule, our intent with the revision to §§ 173.171(c) and 173.171(d) was to ensure that the allowable net mass did not exceed the net mass of the material that had been examined and approved. The consequences of the revision detailed in SAAMI’s appeal were unintentional. SAAMI indicated that the amendments to §§ 173.171(c) and 173.171(d) should be retracted. They state:

The deletion of text in paragraph (d) ignores [that paragraph (d) authorizes the intermixing of different inner packaging of tested and approved combination packagings with no further testing provided certain conditions are met and that several packages meeting the condition set forth in § 173.171(d) may be overpacked together if the 100 pound net mass limitation is not exceeded] and prohibits the ability to mix brands and sizes of powder without further EX approval or performance oriented packaging (POP) testing.

In this response to SAAMI’s appeal, we are revising the listing in the HMT for UN0509, “Smokeless powder, Division 1.4C” in Column (9B) to read “75 kg” and revising the vessel stowage codes in Columns (10A) and (10B) to show “2” and “25,” respectively. These were unintentional typographical errors. This was not the intention of the HM–219 rulemaking and we are correcting those errors in this final rule.

We are revising special provision 16 to read as it did in the HM–219 NPRM,

and the introductory language in § 173.171 to read: “Smokeless powder for small arms which has been classed in Division 1.3 or Division 1.4 may be reclassified in Division 4.1, for domestic transportation by motor vehicle, rail car, vessel, or cargo-only aircraft, subject to the following conditions.” We are also reestablishing §§ 173.171(c) and 173.171(d) to read as they did before the amendments of HM–219 were adopted. These amendments were made in the interest of clarification.

As the revisions to the wording to § 173.171(a) in HM–219 were designed to provide relief for shippers of smokeless powder, in that they would not be required to retest powders already classed as Division 1.3C or 1.4C, we are retaining the wording as shown in the HM–219 final rule for § 173.171(a).

## 2. Clarification of Alcohol and Gasoline Mixtures (P–1522)

In HM–219, PHMSA responded to Shell Chemicals’ petition (P–1522) to remove from the HMT the listing for “Gasohol, with not more than 10% ethanol.” Shell Chemicals stated that the proper shipping names for “Gasoline, includes gasoline mixed with ethyl alcohol (ethanol), with not more than 10% alcohol” and “Ethanol and gasoline mixture or Ethanol and motor spirit mixture or Ethanol and petrol mixture with more than 10% ethanol,” provide the necessary entries for accurate and specific descriptions of these fuel blends. Consistent with the removal of Gasohol from the HMT, Shell Chemicals requested that we remove reference to Gasohol in §§ 172.336(c)(4) and 172.336(c)(5), which contain hazard communication requirements for compartmented cargo tanks, tank cars, or cargo tanks containing these fuels. These provisions were amended as the result of a final rule issued on January 28, 2008, under Docket No. PHMSA–05–21812 (HM–218D), and were intended to help emergency responders identify and respond to the hazards unique to fuel blends with high ethanol concentrations.

Shell Chemicals also requested that we remove special provision 172 from Column (7) in association with all packing groups for the Proper Shipping Name “Alcohols, n.o.s.” Special provision 172 states that “this entry includes alcohol mixtures containing up to 5% petroleum products.”

In its petition, Shell Chemicals contended that:

Canada does not permit the use of UN1987, Alcohols, n.o.s.’ for alcohol mixtures containing up to 5% petroleum products. A shipment originating in the United States,

destined for a customer in Canada using the proper shipping name of "UN1987, Alcohols, n.o.s." must change the placard and the proper shipping name and to use the entry "UN3475, Ethanol and Gasoline mixture," when the packaging is returned to the United States. The use of both PSN entries causes a lot of confusion.

For these reasons, Shell Chemicals stated that these blends should not be permitted to be transported under the "UN 1987, Alcohols, n.o.s."; rather, "NA 1987, Denatured alcohol," and "UN 3475, Ethanol and gasoline mixture or Ethanol and motor spirit mixture or Ethanol and petrol mixture," are more appropriate descriptions.

In the HM-219 NPRM, we proposed removal of the entry "Gasohol" from the HMT and we retained special provision 172 in association with "Alcohols, n.o.s." We indicated that, while we agree that "Denatured alcohol" is a more accurate description, this proper shipping name applies to domestic shipments only and may not be available to imported shipments of alcohol mixtures containing up to 5% petroleum products.

DGAC, in its comments to the HM-219 NPRM, agreed with Shell Chemicals and stated that:

[I]n North America, international shipments of gasoline/ethanol mixtures are predominately between the US and Canada by either highway or rail. Canada does not permit the use of UN1987 in the manner permitted by Special Provision 172. Shipments where UN1987 is used for ethanol/gasoline mixtures face frustrations when moving into Canada, requiring placards to be changed to comply with Canadian regulations.

DGAC stated that the full range of gasoline and ethanol concentrations is covered by UN1203 and UN3475, making special provision 172 unnecessary. We agree that the full range of gasoline and ethanol concentrations can be covered by UN1203 and UN3475. However, when the regulations were changed to incorporate UN3475, and the number of shipments and types of gasoline/ethanol blends increased in 2008, stakeholders (including industry, emergency responders, and local, state and Federal government entities) made it apparent that there was a need for that special provision. Special provision 172 was established in response to concerns expressed by stakeholders for the safety of emergency responders. The Emergency Response Guidebook (ERG) directs emergency responders to Guide 128 for ID number 1993, and recommends "regular foam" to fight large fires. Guide 127 for ID number 1987 recommends "alcohol-resistant

foam." Special provision 172, as provided in the entries for "Denatured Alcohol, NA 1987" and "Alcohols, n.o.s., UN 1987," allows solutions of alcohol and petroleum products to be described as either "Denatured Alcohol" or "Alcohols, n.o.s.," provided the solution contains no more than 5% petroleum products, and alerts emergency responders as to the type of foam needed to extinguish a fire. For these reasons, in the HM-219 final rule we amended the HMT by removing the listing for "Gasohol, gasoline mixed with ethyl alcohol, with not more than 10% alcohol," we retained Special provision 172, and we revised § 172.336 to remove all references to "Gasohol" and to add a table to more clearly indicate hazard communication requirements for compartmented cargo tanks, tank cars, or cargo tanks containing these fuels.

*PHMSA Response:*

On April 3, 2013, DGAC appealed the retention of special provision 172 and requested that we provide a one-year effective date for the removal of the listing in the HMT for "Gasohol." DGAC reasoned that special provision 172 should be removed because Canada no longer recognizes it, and that special provision 330 in the UN Model Regulations, which closely resembled special provision 172, was removed in the 14th edition.

With respect to extending the effective date to one year from publication of final rule HM-219 for the removal of the listing for "Gasohol" in the HMT, this is already authorized in § 172.101(l). By operation of law, packages filled prior to the effective date of the amendment may be shipped; and stocks of preprinted shipping papers and package markings to be used, in the manner previously authorized, until depleted or for a one-year period, subsequent to the effective date of the amendment, whichever is less. As stakeholders already have one year to diminish their supplies, it is not necessary for us to extend the effective date for the removal of Gasohol in this final rule.

Regarding special provision 172, it is important to note that we did not propose its removal in the NPRM. While DGAC commented to our intent to retain special provision 172 citing reasons why it should be removed, we disagreed with DGAC in the HM-219 final rule. Although special provision 330 was removed from the UN Model Regulations, we believe that domestically it provides emergency responders with accurate and important response guidance. Furthermore, because we did not propose the removal

of special provision 172 in the HM-219 NPRM, we cannot remove it in this final rule without providing public notice and the opportunity for all interested stakeholders to comment. For these reasons we are retaining special provision 172 in this final rule.

3. Certification Packaging Marking and Recordkeeping Requirements (P-1479)

PHMSA responded to a petition for rulemaking by gh Package & Product, Testing and Consulting, Inc. (PPTC), (P-1479), which requested that we consider amending the HMR to indicate that an entity performing continued packaging certification on a UN certification packaging is not allowed to use the original manufacturer's or third party laboratory's mark unless authorized by the manufacturer or third-party laboratory. PPTC also requested we amend the HMR to provide that packaging test reports be kept for a limited time instead of the current requirement of "until the packaging is no longer manufactured."

Marking

Regarding the manufacturer's or third party tester's mark, PPTC stated that its third-party laboratory performed design qualification testing of a manufacturer's packaging at least three times, and the packaging failed each time. Eleven years after PPTC had tested the packaging, it learned that the packaging that had failed in its laboratory was still being manufactured and that PPTC's third-party laboratory symbol was being used on the packaging as the packaging tester's mark without permission. PPTC is of the opinion that the language in § 178.3 is unclear because it enables anyone to use the manufacturer's mark, which could expose the original third-party test laboratory to potential liability for defective packaging and other packaging violations.

Section 178.3 provides the person who is certifying compliance of a packaging with the option of marking the packaging with a symbol, rather than the company name and address, provided that the symbol is registered with PHMSA's Associate Administrator for Hazardous Materials Safety. While it is implied that the symbol being used is that of the person who has registered the symbol, it is not explicit. PPTC has indicated that since the regulations do not specify who is authorized to use the mark, some third-party retesters that did not initially certify the packaging are continuing to use the original third-party laboratory's symbol to certify compliance. While the symbol is associated with the original manufacturer or third-party laboratory,

that entity has no control over the packaging being retested by someone else.

In the HM-219 NPRM, we proposed to revise § 178.3(a)(2) to clarify that the required marking must identify the person who is certifying that the packaging has passed either the periodic retest or the design qualification test. We further proposed that, unless authorized in writing by the holder of the symbol, symbols must represent either the packaging manufacturer or the approval agency responsible for providing the most recent certification for the packaging through design certification testing or periodic retesting, as applicable.

DGAC disagreed with the proposed changes stating that they would have the effect of replacing, in the UN performance packaging marking, the mark of the person who performed the design qualification tests with the mark of the person who performed the most recent periodic retest. DGAC stated that “periodic retesting does not necessarily confirm compliance with all requirements applicable to a UN design type (e.g., requirements in §§ 178.504–523).” We are aware of the differences between design qualification and periodic retesting, and understand that under the UN Model Regulations the manufacturer’s marking is intended to signify the entity responsible for the design qualification test. Our intent is to ensure that under the HMR, the marking on the packaging is traceable to the entity responsible for certifying the packaging—whether that certification is signifying that the packaging passed the design qualification test or the periodic retest. Currently, the HMR differ from the UN Model Regulations with respect to the testing of packagings because the UN Model Regulations only require a design test and do not require periodic retesting of packagings. For this reason, the UN Model Regulations do not have to account for the potential of unauthorized use of a third-party laboratory’s symbol, nor do they have to distinguish what the mark signifies. In Chapter 6.1, paragraph 6.1.3 of the UN Recommendations, with respect to marking, Note 1 states that: “The marking indicates that the packaging which bears it corresponds to a successfully tested design type and that it complies with the requirements of this Chapter . . .”; whereas the HMR in § 178.503(a)(8) states: “A packaging conforming to a UN standard must be marked as follows: [with] the name and address or symbol of the manufacturer or the approval agency certifying compliance with subpart L and subpart

M of this part.” Subpart M includes both design type and periodic retesting.

Further, DGAC states that:

[A] consequence of the proposed changes is that the UN package marking for a given design type would have to be changed at least every year in the case of single or composite packagings and every two years in the case of combination packagings. It does not appear that PHMSA has considered the costs of changing these package markings at this frequency in its regulatory evaluation. At a minimum, such marking changes could result in considerable administrative costs. In addition, we question whether these changes would provide a meaningful enhancement to safety.

It is our intent that the certification mark indicated on a packaging is that of the person manufacturing the packaging, or testing the packaging, on behalf of the manufacturer. We anticipated the concerns raised by DGAC and as such, provided an allowance for the use of the mark of the person who performed the design qualification tests if authorized in writing by the holder of the mark. An additional option is that the mark is representative of the person who physically manufactured the packaging, in which case, it would not change based on who conducts the design testing or retesting.

For these reasons, we adopted the changes proposed regarding the packaging certifier’s mark in the HM-219 final rule and revised § 178.3 to indicate that the required marking must identify the person who is certifying that the packaging meets the applicable UN Standard. Further, for continued certification of the packaging through periodic retesting, the marking must identify the person who certifies that the packaging continues to meet the applicable UN Standard.

*PHMSA Response:*

In an appeal dated March 27, 2013, DGAC contends that:

[T]he new requirement introduces certain inconsistencies within the HMR, the costs of the change could be significant, and that PHMSA has provided insufficient time to provide for orderly implementation. In addition, considering the lack of discussion, it would appear that PHMSA did not consider the change under requirements of the Paperwork Reduction Act. Contrary to PHMSA’s assertion that the change is a clarification, it is a fundamental change to the regulations.

DGAC also asserts that the effective date of the HM-219 final rule does not provide enough time for users of another entity’s mark to request permission to use the mark. We believe that the allowances provided by the final rule, such as requesting permission from the person who conducted the

design testing, using the mark of the person who physically manufactured the packaging, or using its own mark, are sufficient and timely options.

DGAC further asserts:

Since PHMSA did not discuss the change under the preamble heading “F. Paperwork Reduction Act”, it is assumed that PHMSA’s analysis did not account for the increased information collection required due to this change. Under 5 CFR § 1320.3(c)(1) an *information collection* includes a “posting, notification, labeling, or similar disclosure requirements”. In our opinion, a UN package marking would fall within this category of information collection. In addition, under 5 CFR § 1320.2(b)(1), a *burden* is defined to include: “(v) Adjusting the existing ways to comply with any previously applicable instructions and requirements;” On this basis, we are under the impression that changing the required marking on UN packagings (i.e., replacing the design qualification laboratory symbol with the manufacturer or retest laboratory symbol) constitutes a “burden” as defined by the PRA regulations.

Regarding the Paperwork Reduction Act (PRA), we have not revised the marking requirements. We have simply clarified in the regulations that a person may not use the mark of the person who performed the design qualification testing when marking for a periodic retest without the written permission of the person who performed the design qualification test. We see no difference in the paperwork burden between the current regulations and the changes made under the HM-219 final rule. To underscore this point, we note that the requirements prior to the publication of the HM-219 final rule allowed the person that performed the periodic retest to mark the packaging with its mark. Specifically, for non-bulk packaging, § 178.503(e)(8) requires that the packaging be marked with the name and address or symbol of the manufacturer or the approval agency certifying compliance with Subparts L and M of Part 178. Design qualification testing and periodic retesting requirements are provided in Subpart M of Part 178. The intent of the periodic retest is to ensure that each packaging produced by the manufacturer is capable of passing the design qualification tests.

Therefore, we have not amended the marking requirements. Rather, we have merely clarified that a person who retests and marks a packaging may use its own mark, but may not use the mark of another testing entity without the written permission of that entity. For these reasons, we are retaining the revisions made in the HM-219 final rule to § 178.3(a)(2) and are not extending

the effective date with respect to these requirements.

4. Test Reports

The record retention requirements for packaging testing in sections 178.601(l), 178.801(l), and 178.955(i), indicate that the test report must be maintained at each location where the packaging is manufactured and each location where the design qualification tests are conducted for as long as the packaging is produced and for at least two years thereafter. As described in PPTC's petition, the original packaging manufacturer or third-party packaging testing laboratory is often not aware that a packaging is still being made, but is required to retain records until the packaging is no longer made. PPTC contends that a third-party laboratory should not be responsible for providing information on packaging that it has no control or approval over.

In the HM-219 NPRM, we proposed to revise § 178.601(l), which specifies recordkeeping requirements for testing non-bulk packaging; § 178.801(l), which specifies recordkeeping requirements for testing Intermediate Bulk Containers (IBCs); and § 178.955(i), which specifies recordkeeping requirements for testing large packagings, to indicate that records must be maintained by:

- The manufacturer for as long as the packaging is made and two years thereafter;

- The person performing the design testing until the next periodic retest is successfully performed, a new test report is produced, and five years thereafter; and

- The person performing the periodic retest until the next periodic retest is successfully performed and a new test report produced.

In its comments to the HM-219 NPRM, DGAC opposed this change, stating that:

PHMSA may alter the required frequency based on an approval and, in the case of IBCs and Large packagings, PHMSA may substitute a quality control program for required periodic retesting (see § 178.801(e)(2)). As such, the periodic retest date is not a date certain, raising the question of how the person who conducted the design qualification tests can know the actual time period for retaining records. If PHMSA maintains the proposed record retention requirements in some form, we recommend the retention period be tied to the date of the design qualification testing rather than the date of periodic retesting. When the required packaging retest frequency is based on an approval and, in the case of IBCs and Large packagings, a quality control program is substituted for required periodic retesting, records would have to be maintained predicated on the specifications of each approval.

We agreed with DGAC that retest dates may vary depending on a variety of factors (e.g. the manufacturer may choose a higher frequency than

required, PHMSA may alter the required frequency based on an approval and, in the case of IBCs and large packagings, PHMSA may substitute a quality control program for required periodic retesting). In the HM-219 final rule, we added the word "required" in conjunction with the design qualification and periodic retesting recordkeeping requirements to clarify that records of the retest must be kept only for the specified duration after the HMR-required test is performed successfully. Specifically, we revised the language proposed in the HM-219 NPRM in § 178.601(l), which specified recordkeeping requirements for testing non-bulk packaging; § 178.801(l), which specified recordkeeping requirements for testing IBCs; and § 178.955(i), which specified recordkeeping requirements for testing large packagings, to indicate that records are maintained until the next *required* periodic retest is successfully performed and a new test report produced. In all other respects, we amended the HMR as proposed in the HM-219 NPRM. In doing so, we limited the document retention period for persons conducting initial design testing to five years beyond the next successful required periodic retest. In addition, we provided a table to clearly identify the retention requirements for test reports. The table appeared as follows in the HM-219 final rule:

| Responsible party                          | Duration  |
|--|---|
| Person manufacturing the packaging .....   | As long as manufactured and two years thereafter.   |
| Person performing design testing .....     | Until next required periodic retest is successfully performed, a new test report produced, and five years thereafter. |
| Person performing periodic retesting ..... | Until next required periodic retest is successfully performed and a new test report produced.                         |

*PHMSA Response:*

In an appeal dated March 28, 2013, RIPA asked that we reconsider the record retention requirement changes to § 178.601(l), for testing non-bulk packaging; § 178.801(l), for testing IBCs;

and § 178.955(i) for large packagings. RIPA states:

As other commentators have pointed out, design type tests and periodic retests are not necessarily equivalent, e.g. paper or fiberboard. We wonder why PHMSA would allow the original design type test to

disappear at any time during the production life of a packaging.

Further, RIPA suggests that instead of the recordkeeping requirements published in HM-219 final rule, the following recordkeeping requirements should apply:

| Responsible party                          | Duration   |
|--|--|
| Person manufacturing the packaging .....   | Design test and most recent periodic retest maintained as long as manufactured and two years thereafter. |
| Person performing design testing .....     | Design test maintained for six years after the test is successfully performed.                           |
| Person performing periodic retesting ..... | Until next required periodic retest is successfully performed and a new test report produced.            |

The amendment to the recordkeeping requirements for packaging testing was intended to limit the record retention time period for the person performing

the design type test. We did this because the third-party packaging testing laboratory is often not aware that a packaging is still being made. We

provided that the design test results are kept until the next required periodic retest is successfully performed, a new test report produced, and five years

thereafter. For single or composite packagings, the record retention duration would have been six years, as the suggested language shows in the RIPA appeal. However, for combination packagings and packagings intended for infectious substances, the record retention duration would have been for seven years. With respect to the retester's recordkeeping requirements, we stated that the retester must keep records until the next periodic retest is successfully performed, which would be one year for single or composite packagings and two years for

combination packagings or packagings intended for infectious substances. We agree with RIPA regarding its suggested revisions to the recordkeeping requirement for persons performing the design testing, but we also will clarify in this final rule that the recordkeeping requirements for combination packagings and packagings intended for infectious substances is seven years. Instead of requiring periodic retesters to keep records until the next required periodic retest is successfully performed and a new test report produced, we are clarifying that the duration the records must be kept are one year after the test

has been successfully performed for single or composite packagings and two years after the test has been successfully performed for combination packagings or packagings intended for infectious substances. In its appeal to the HM-219 final rule, RIPA questions why PHMSA would allow the original design type test to disappear. We have always intended for the manufacturer to retain all test records, including the design qualification and all periodic retest. In this final rule we are revising the tables in §§ 178.601(l), 178.801(l) and 178.955(i) as follows:

| Responsible party                          | Duration  |
|--|---|
| Person manufacturing the packaging .....   | As long as manufactured and two years thereafter.   |
| Person performing design testing .....     | Design test maintained for a single or composite packaging for six years after the test is successfully performed and for a combination packaging or packaging intended for infectious substances for seven years after the test is successfully performed.   |
| Person performing periodic retesting ..... | Performance test maintained for a single or composite packaging for one year after the test is successfully performed and for a combination packaging or packaging intended for infectious substances for two years after the test is successfully performed. |

**III. Section-by-Section Review of Changes**

In this final rule, we are making editorial corrections and clarifying amendments to sections that were amended by the final rules HM-215K and HM-215L both published January 7, 2013; HM-218G published March 11, 2013; and HM-219 published March 7, 2013, for consistency with grammatical conventions and for consistency with similar provisions within the HMR. We are also making conforming amendments to sections in the HMR affected by these four final rules. The clarifying or conforming amendments in this final rule do not impose new requirements but rather are intended to provide a better understanding of the requirements adopted in the final rules. The corrections and amendments are as follows:

*Part 171*

Section 171.7

This section lists material incorporated by reference into the HMR. In the January 7, 2013 final rule PHMSA-2012-0027 (HM-215L), we incorporated UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria, fifth revised edition, Amendment 1 (2011) (Manual of Tests and Criteria), which was intended to supplement UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria, fifth revised edition (2009), however we replaced the reference to

the fifth revised edition (2009) with the supplement (Amendment 1) only. In this final rule, we are revising § 171.7(dd) by adding UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria, fifth revised edition (2009).

Section 171.8

This section defines terms generally used throughout the HMR that have broad or multi-modal applicability. In the January 7, 2013 final rule PHMSA-2012-0027 (HM-215L), we introduced the definition *Aircraft Battery* in the section-by-section review, however, it was not added to the regulatory text. In this final rule, we are adding the defined term *Aircraft Battery* to mean “a battery designed in accordance with a recognized aircraft battery design standard (e.g. FAA technical standard order) that is capable of meeting all aircraft airworthiness requirements and operating regulations.”

Section 171.23

This section prescribes requirements for specific materials and packagings transported under the ICAO TI, IMDG, Transport Canada TDG Regulations or the IAEA Regulations. In paragraph (b)(8), the Organic Peroxide Table incorrectly referenced as § 173.225(b) and should be § 173.225(c). In this rule, we are correcting this error.

*Part 172*

Section 172.101

This section prescribes the purpose and instructions for use of the § 172.102 Hazardous Materials Table (HMT). In the January 7, 2013 final rule PHMSA-2012-0027 (HM-215L), we added “Chemical under pressure, n.o.s.” entries to the HMT to address shipments of liquids or solids (e.g., adhesives, coatings, and cleaners) combined with a gas or gas mixtures utilized to expel the contents from pressure vessels. We authorized UN Portable Tanks by referencing 173.313 in Column (8C) bulk packaging authorizations, but inadvertently failed to authorize the use of DOT specification tanks. We are adding “315” to Column (8C) for the “Chemical under pressure, n.o.s.” entries authorizing use of DOT specification tanks.

In the January 7, 2013 final rule PHMSA-2012-0027 (HM-215L), we attempted to remove an erroneous entry for “Aerosols, poison, (each not exceeding 1 L capacity), UN1950” from the table. This entry was not removed during publishing, and resulted in two entries for “Aerosols, poison” currently existing in the HMT. In this final rule we are removing the duplicative entry for “Aerosols, poison, (each not exceeding 1 L capacity).”

In the January 19, 2011 final rule (PHMSA-2009-0126 [HM-215K]), PHMSA revised several organometallic substance entries in the HMT by adding

the new portable tank special provision TP36. A number of entries were erroneously duplicated in the publication process and, in this final rule, we are removing the duplicate entries. Additionally, in the January 19, 2011 final rule, the sour crude oil entry under UN3494 was added to the HMT and erroneously placed between the Packing Group II and III petroleum oil entries under NA1270. This final rule corrects that error.

PHMSA identified a typographical error as a result of revisions made in the HM-219 final rule. In the HMT, the listing for “self-reactive solid type E” showed an incorrect ID number in Column (4), and incorrect quantity limitations in Columns (9A) and (9B). Upon publication of the HM-219 NPRM, PHMSA did not receive any comment on the unintended typographical errors in the HMT and, therefore, PHMSA adopted the changes as proposed in the final rule. PHMSA acknowledges that these typographical errors in HM-219 were not intended. In addition, an error occurred during publishing that caused in the listing for “Self-reactive solid type E” to be removed and the listing for “Self-reactive solid type F” to be duplicated. In this final rule, we are removing the duplicate listing for “Self-reactive solid type F” and correcting the entry in the HMT for “Self-reactive solid type E,” to indicate “UN3228” in Column (4) and “10 kg” in Column (9A) and “25 kg” in Column (9B) by re-adding the listing that was removed in error.

We are making a number of editorial corrections to several entries in the HMT. The editorial corrections are as follows:

#### Amendments to Column (1) Symbols

For the entry “Sulfuric acid, fuming with 30 percent or more free sulfur trioxide, UN1831,” the “+” Symbol in Column (1) is removed as it was inadvertently added when the entry was amended in HM-218G.

#### Amendments to Column (4) Identification Numbers

- For the entry “Cartridges power device (used to project fastening devices), ORM-D,” the Identification Number in Column (4) is amended to indicate a blank entry consistent with the remaining ORM-D entries in the HMT.

- For the entry for “Self-reactive solid type E,” the Identification Number in column (4) is revised to read “UN3228.”

#### Amendments to Column (5) Packing Group

- For the entry “Powder, smokeless, UN0509,” the Packing Group in Column (5) is corrected to read “II.”
- For the entry “Propellant, solid, UN0501,” the Packing Group in Column (5) is corrected to read “II.”

#### Amendments to Column (6) Label Codes

For the entry “Cartridges for weapons, blank or Cartridges, small arms, blank or Cartridges for tools, blank, UN0014,” the Label Code in Column (6) is corrected to read “None.”

- For the entry “Cartridges for weapons, inert projectile or Cartridges, small arms, UN0012,” the Label Code in Column (6) is corrected to read “None.”

#### Amendments to Column (7) Special Provisions

- For the entry “Consumer commodity, ORM-D,” special provision 222 is added in Column (7) for consistency with the other ORM-D entries in the HMT.

- For the entries “Substances, explosive, n.o.s.,” assigned to UN numbers UN0357, UN0358, and UN0359, special provision 101 is added in Column (7) as intended and mentioned in the preamble to the HM-215L final rule.

- For the entry “Other regulated substances, liquid, n.o.s.,” special provision A189 is added in Column (7) as indicated by the preamble discussion in the HM-215L final rule to help direct shippers to the most appropriate entry for shipments of formaldehyde solutions containing varying amounts of formaldehyde.

#### Amendments to Column (8A) Packaging Exceptions

- For the entry “Cartridges, power device, UN0323,” the Packaging Exception in Column (8A) is corrected to read “63.”

#### Amendments to Column (8C) Bulk Packaging Authorizations

- For the “Chemical under pressure, n.o.s.” entries, the packaging authorization “315” is added to Column (8C) to authorize use of DOT specification tanks in addition to UN portable tanks.

#### Amendments to Column (9) Quantity Limitations

- For the entry “Consumer commodity, ORM-D,” the Quantity Limitation in Column (9B) is revised to read “Forbidden,” consistent with the other ORM-D entries in the HMT.

- For the entry for “Powder, smokeless, 1.4C,” the Quantity

Limitation in Column (9B) is revised to read “75kg.”

- For the entry for “Self-reactive solid type E,” the Quantity Limitation in Column (9) is revised to read “10 kg” in column (9A) and “25 kg” in Column (9B).

#### Amendments to Column (10) Vessel Stowage Requirements

- For the entry “Model rocket motor, NA0276,” the Vessel Stowage in Column (10) is corrected to read “02” in Column (10A) and “25” in Column (10B).

- For the entry “Model rocket motor, UN0323,” the Vessel Stowage in Column (10) is corrected to read “01” in Column (10A) and “25” in Column (10B).

- Corrections are made to the following entries in Column (10A) of the HMT for Vessel Stowage Location codes by adding a “0” preceding a single digit entry; for example, “1” is corrected to read “01”:

- Revised to read “01”: NA0337, UN0173, UN0174, UN0193, UN0345, UN0373, UN0376, UN0481, UN0506, UN0507;

- Revised to read “02”: UN0191, UN0197, UN0306, UN0320, UN0344, UN0347, UN0370, UN0407, UN0425, UN0435, UN0438, UN0453, UN0479, UN0480, UN0485, UN0493, UN0501, UN0502, UN0505;

- Revised to read “03”: UN0192, UN0194, UN0195, UN0196, UN0212, UN0238, UN0240, UN0313, UN0319, UN0424, UN0434, UN0476, UN0478, UN0482, UN0487, UN0492;

- Revised to read “04”: UN0153, UN0154, UN0155, UN0159, UN0160, UN0161, UN0168, UN0169, UN0181, UN0182, UN0183, UN0186, UN0207, UN0208, UN0209, UN0213, UN0214, UN0215, UN0216, UN0217, UN0218, UN0219, UN0220, UN0221, UN0234, UN0235, UN0236, UN0280, UN0281, UN0286, UN0287, UN0329, UN0346, UN0374, UN0375, UN0386, UN0387, UN0388, UN0389, UN0390, UN0391, UN0394, UN0433, UN0436, UN0437, UN0451, UN0474, UN0475, UN0477, UN0495, UN0497, UN0498, UN0499, UN0504;

- Revised to read “05”: UN0167, UN0180, UN0190, UN0204, UN0250, UN0295, UN0296, UN0322, UN0324, UN0330, UN0357, UN0358, UN0359, UN0369, UN0371, UN0377, UN0378, UN0395, UN0396, UN0397, UN0398, UN0426, UN0427, UN0449, UN0450, UN0473.

#### Section 172.102

Section 172.102 sets forth the text of the special provisions referenced in the HMT. PHMSA revised special provision

16 in the HM-219 final rule to read: "This description applies to smokeless powder and other propellant powders that are used as powder for small arms and have been classed as Division 1.3C and 1.4C and reclassified to Division 4.1 in accordance with § 173.56 and § 173.58 of this subchapter." By making this revision, we intended to clearly indicate that only smokeless powder or propellant in powder form may qualify for reclassification into Division 4.1, and ensure that powders that have hazard properties different from "propellants" could not be reclassified into Division 4.1. In response to SAAMI's appeal to HM-219, in this final rule we are revising special provision 16 to read: "This description applies to smokeless powder and other solid propellants that are used as powder for small arms and have been classed as Division 1.3C, 1.4C and Division 4.1 in accordance with § 173.56 of this subchapter."

#### Section 172.202

This section establishes requirements for shipping descriptions on shipping papers. As part of the shipping description requirements, in many situations a net quantity or gross mass of the hazardous materials transported must be shown. In the January 7, 2013 final rule (HM-215L) we revised § 172.202 by adding a new paragraph (a)(6)(vii) to harmonize with the ICAO TI as to whether, for limited quantities, the net quantity or gross mass is required to be shown on the shipping document, including when different hazardous materials are packed together in the same outer packaging. In the final rule, we associated this requirement with Column (9) of the HMT. After receiving several comments, and upon further review, in this final rule we are revising § 172.202(a)(6)(vii) to associate this requirement for limited quantities with column 4 of the § 173.27 Table 3, as this is a better alignment with the ICAO TI. Specifically, we are revising paragraph (a)(6)(vii) to state that for hazardous materials in limited quantities, the total net quantity per package must be shown unless a gross mass is indicated in column 4 of § 173.27 Table 3, in which case the total gross mass per package must be shown. Where different hazardous materials in limited quantities are packed together in the same outer packaging, when a gross mass is indicated column 4 of the § 173.27 Table 3, the net quantity of each hazardous material must be shown in addition to the gross mass of the completed package.

#### Section 172.301

Section 172.301 prescribes the general marking requirements for non-bulk packagings. In the HM-215L final rule, § 172.301(a)(1)(i) was amended with a minor grammatical error stating "paragraph this" instead of "this paragraph." In this final rule, we are correcting this grammatical error.

#### Section 172.315

Section 172.315 prescribes the requirements applicable to marking packages of limited quantity material. In the section-by-section review in the January 7, 2013 final rule (HM-215K) we stated our intent to authorize continued use of the alternative limited quantity marking (i.e., square-on-point and Identification Number) prescribed in § 172.315(d), in effect on October 1, 2010, until December 31, 2015. However, an incorrect date was published in the regulatory text. In this document, we are authorizing use of the alternative limited quantity marking prescribed in § 172.315(d) until December 31, 2015.

#### Section 172.316

Section 172.316 prescribes the marking requirements for packages of ORM-D material. In this final rule, we are revising paragraph (a) for clarity as the reclassification to ORM-D-AIR is no longer authorized as of January 1, 2013.

#### Section 172.336

Section 172.336 sets forth exceptions to the identification number marking requirements on various tanks. In the HM-219 final rule, we removed references to Gasohol in § 172.336 and established a table to better indicate where identification marks should be displayed on each tank type. In so doing, we identified that the requirements for nurse tanks were unclear. In this final rule, we are clarifying the identification number marking requirements for nurse tanks to state that they are not required on one end of nurse tanks if that end contains valves, fittings, regulators or gauges when those appurtenances prevent the markings and placard from being properly placed and visible as set forth in § 173.315(m).

#### Part 173

##### Section 173.6

Section 173.6 prescribes exceptions from certain requirements of the HMR for the transportation of hazardous materials defined as materials of trade (MOTS) when transported by motor vehicle. In the January 7, 2013 final rule (HM-215K), we adopted revisions to the

paragraph (d) exceptions that reflect the phase-out of the ORM-D system on December 31, 2020, and applied the exception provided ORM-D material to hazardous materials authorized for transportation as a limited quantity under Subparts C through E and Subpart G of Part 173 of the HMR. We are removing, in response to public comment received subsequent to the issuance of the January 7, 2013 final rule (HM-215K), the reference to limited quantities prepared in accordance with § 173.27 in § 173.6(a)(6). MOTS is a highway-transport-only exception.

##### Section 173.22

Section 173.22 prescribes various shipper responsibilities. In this final rule, the word "filed" in the last sentence of paragraph (a)(4)(ii) is corrected to read "filled." Additionally, paragraph (a)(4)(iii) is revised for clarity by specifying the duration of record retention for compliance with Selective Testing Variation 1 as prescribed in § 178.601(g)(1).

##### Section 173.24

Section 173.24 prescribes the general requirements for packagings and packages. In this final rule, we are revising paragraph (i) for editorial purposes. Currently, except as provided in Subpart C of part 171 of this Subchapter, packages offered or intended for transportation by aircraft must conform to the general requirements for transportation by aircraft in § 173.27. This would include packages of consumer commodities prepared in accordance with § 173.167. This was never intended to be the case as the requirements of § 173.167 are meant to be stand-alone as they are in Packing Instruction Y963 of the ICAO TI.

##### Section 173.25

Section 173.25 prescribes requirements for the transportation of authorized packages in overpacks used for protection or convenience of handling or to consolidate packages. In this final rule, paragraphs (a)(6) and (a)(7) are revised by removing the italicized font in each heading for consistency within the section and adding an em dash after each heading.

##### Section 173.27

Section 173.27 prescribes the general requirements for transportation by aircraft. In this final rule, we are revising the Class 8 list of articles and substances not authorized limited quantity status in paragraph (f)(2)(i)(F) by adding Identification Number

UN3506 (Mercury in manufactured articles). In the HM-215L rulemaking, we inadvertently overlooked this new international entry and failed to add it to the list of ineligible substances and articles not authorized as limited quantities consistent with the 2013–2014 ICAO TI. Additionally, in Table 3 of paragraph (f)(3), we are correcting the Class 9 liquid and solid entries to include the identification numbers “UN3334” and “UN3335” in the second and third columns of the table.

#### Section 173.62

Section 173.62 prescribes the specific packaging requirements for explosives. In final rule published on January 7, 2013 (HM-215L), we revised various packaging provisions in the “Table of Packing Methods” in this section to align with changes adopted in the 17th Revised Edition of the UN Model Regulations. The revisions to the authorized packaging methods provided greater flexibility when packaging explosives while retaining an appropriate level of safety. These changes included, but were not limited to, permitting various explosives to be transported in closed head drums in addition to the already permitted removable head drums and adding the option to utilize wooden inner and intermediate packagings in various packaging provisions. We revised § 173.62(c), Table of Packing Methods, packing instruction 130, to include additional options for outer packagings. Specifically, the use of boxes and drums constructed of metal other than steel or aluminum (4N) and the use of closed head drums in addition to the already permitted removable head drums.

In a subsequent final rule published on March 11, 2013, under Docket No. PHMSA 2011–0138 (HM-218G), entitled “Hazardous Materials; Miscellaneous Amendments (RRR),” we again revised § 173.62(c), Table of Packing Methods, packing instruction 130 to add the following language that was inadvertently removed from the first column of the packing instruction:

2. Subject to approval by the Associate Administrator, large explosive articles, as part of their operational safety and suitability tests, subjected to testing that meets the intentions of Test Series 4 of the UN Manual of Tests and Criteria with successful test results, may be offered for transportation in accordance with the requirements of this subchapter.

When reinstating the removed language in the HM-218G final rule, we inadvertently removed the additional options for outer packagings authorized in the packing instruction 130 in the HM-215L final rule. We did not intend

to remove these outer packagings from packing instruction 130 and unnecessarily limit the transport of large explosive articles. Therefore, we are correcting § 173.62(c), Table of Packing Methods, packing instruction 130, to reinstate the additional options for outer packagings inadvertently removed from the third column of packing instruction 130.

In addition to the correction to packing instruction 130, the HM-215L final rule also revised packing instruction 112(b). The outer packaging authorization was inadvertently changed from “bags” to “boxes.” As such, we are revising packing instruction 112(b) by correcting the outer packaging authorization to “bags.”

#### Section 173.63

Section 173.63 details packaging exceptions for specific types of low hazard explosive materials including certain detonators, small arms ammunition, cartridges power device and detonating cord. We received an appeal to the HM-215L rulemaking from SAAMI requesting multiple changes to § 173.63.

SAAMI requested clarifying edits to § 173.63(b) to ensure provisions in place for ORM-D shipments of “Cartridges, power device (*used to project fastening devices*)” prior to HM-215L are maintained. We are amending the introductory text to §§ 173.63(b)(1)(i), (b)(1)(ii), and (b)(1)(iii) to ensure proper use of the modifying phrase “used to project fastening devices” and modifying §§ 173.63(b)(1)(iii)(G) and 173.63(b)(2)(v) to ensure ORM-D shipments of these “Cartridges, power device (*used to project fastening devices*)” when appropriately packaged may utilize the ORM-D exception provided in § 173.63.

#### Section 173.144

Section 173.144 defines “Other Regulated Materials, ORM-D.” We are amending the definition to include “Cartridges, power device (*used to project fastening devices*),” “Cartridges for tools, blank,” and “Cases, cartridge, empty with primer” as authorized in § 173.63(b)(iii).

#### Section 173.150

Section 173.150 provides exceptions from the HMR for certain Class 3 flammable liquid material. Specifically, § 173.150(d) provides exceptions for alcoholic beverages for all modes of transport. Generally, the HMR is harmonized with the ICAO TI with regard to the exceptions provided for alcoholic beverages shipped by passenger-carrying and cargo-only

aircraft. However, prior to the publication of the HM-218G final rule, for cargo-only aircraft, the HMR did not align with the ICAO TI. This lack of harmonization led to frustration of shipments of these types of materials in international air transport.

To address this issue, we proposed in the HM-218G NPRM, to revise the exceptions in § 173.150(d) to harmonize the alcoholic beverages exception via aircraft with the requirements in the ICAO TI, and to restructure the exceptions in § 173.150(d) to provide clarity on the requirements for the transport of alcoholic beverages by each mode of transport including passenger-carrying and cargo-only aircraft.

We did not receive any negative comments on this proposed change and one comment suggesting revised regulatory text to promote clarity. In a subsequent HM-218G final rule, we adopted the revised § 173.150(d)(2) to harmonize the HMR with the ICAO TI for the air transportation of alcoholic beverages.

Upon further review of the regulatory language adopted in the HM-218G final rule, we identified an unintended error in need of correction. Specifically, §§ 173.150(d)(2)(ii) and 173.150(d)(2)(iii) use the language “but less than 70% alcohol by volume” when describing the upper limit of the exception. This implies that beverages containing exactly 70% alcohol by volume would not be permitted to use this exception. Section 175.10(a)(4)(ii) and in ICAO TI, Special Provision A9 use the language “not more than 70 per cent alcohol by volume” permitting alcohols containing exactly 70% alcohol by volume to use the exception. While these two phrases seem similar, “but less than 70% alcohol by volume” adopted in the HM-218G final rule is unintentionally more stringent, and is inconsistent with the ICAO TI or inconsistent and § 175.10(a)(4)(ii). Therefore, we are revising §§ 173.150(d)(2)(ii) and 173.150(d)(2)(iii) by replacing the phrase “but less than 70% alcohol by volume” with the phrase “not more than 70 per cent alcohol by volume.” This will ensure consistency within the HMR and harmonize fully the HMR and ICAO TI with regard to the alcoholic beverages exception.

#### Section 173.156

Section 173.156 prescribes exceptions for limited quantity and ORM material. In this final rule, we are correcting an error made to paragraph (b)(1) in the January 7, 2013 HM-215K final rule. In that paragraph, we except certain shipments from the limited quantity and

ORM-D marking requirements of the HMR if they are so marked. This is incorrect. This rule corrects that inconsistency by allowing them to remain excepted from the marking provisions as they were prior to the January 7, 2013 final rule. Additionally, we are removing the redundant paragraph (b)(2)(vi).

#### Section 173.165

This section prescribes the requirements for polyester resin kits. In both January 7, 2013 final rules, HM-215K and HM-215L, revisions were made to § 173.165 inadvertently resulting in duplicate paragraphs concerning consumer commodities and omitting the HM-215L paragraph (c), limited quantities. We are revising § 173.165 by removing the duplicate paragraph concerning commodities and replacing paragraph (c) with the limited quantity language from the HM-215L final rule.

#### Section 173.167

Section 173.167 prescribes the requirements for consumer commodities intended for air transportation. In this final rule, we are revising paragraph (a) for editorial purposes. Currently, except as provided in Subpart C of Part 171 of this Subchapter, packages offered or intended for transportation by aircraft must conform to the general requirements for transportation by aircraft in § 173.27. This would include packages of consumer commodities prepared in accordance with § 173.167. This was never intended to be the case. The requirements of § 173.167 are meant to be stand-alone, as they are in Packing Instruction Y963 of the ICAO TI.

#### Section 173.171

Section 173.171 provides exceptions for Smokeless powder for small arms that has been classed as an explosive and reclassified as a Division 4.1 for domestic transportation by motor vehicle, rail car, vessel, or cargo-only aircraft, subject to certain conditions. In the HM-219 final rule, we revised the introductory paragraph of § 173.171 to read: "Powders that have been classed in Division 1.3 or Division 1.4C may be reclassified in Division 4.1, for domestic transportation by motor vehicle, rail car, vessel, or cargo-only aircraft, subject to the following conditions"; we revised § 173.171(a) to read: "Powders that have been approved as Division 1.3C or Division 1.4C may be reclassified to Division 4.1 in accordance with §§ 173.56 and 173.58 of this part"; we revised § 173.171 (c) to read: "Only combination packagings with inner packagings not exceeding 3.6 kg (8

pounds) net mass and outer packaging of UN 4G fiberboard boxes meeting the Packing Group I standards are authorized. Inner packagings must be arranged and protected so as to prevent simultaneous ignition of the contents. The complete package must be of the same type that has been examined as required in § 173.56 of this part"; and we revised § 173.171(d) to read: "The net weight of smokeless powder in any one box (one package) must not exceed 7.3 kg (16 pounds)." In response to SAAMI's appeal to HM-219, in this final rule we are revising the introductory language in § 173.171 to read: "Smokeless powder for small arms which has been classed in Division 1.3 or Division 1.4 may be reclassified in Division 4.1, for domestic transportation by motor vehicle, rail car, vessel, or cargo-only aircraft, subject to the following conditions."

We are also reestablishing §§ 173.171(c) and 173.171(d) to read as they did before the amendments of HM-219 were adopted. As the revisions to the wording to § 173.171(a) in HM-219 were designed to provide relief for shippers of smokeless powder, in that they would not be required to retest powders already classed as Division 1.3C or 1.4C, we are retaining the wording as shown in the HM-219 final rule for § 173.171(a).

#### Section 173.176

This section was added in the January 7, 2013 HM-215L final rule and prescribes the requirements for capacitors. In the ICAO TI, capacitors, UN3499, are assigned to Packing Instruction 971 which provides, "The capacitor or, when fitted in a module, the module must be fitted with a metal strap connecting the terminals." This requirement in Packing Instruction 971 differs from the requirement adopted in Special Provision A186 of the ICAO TI assigned to UN3499 which provides, "When a capacitor's energy storage capacity is less than or equal to 10 Wh or when the energy storage capacity of each capacitor in a module is less than or equal to 10 Wh, the capacitor or module shall be protected against short circuit or be fitted with a metal strap connecting the terminals." In the January 7, 2013 HM-215L final rule, in § 173.176, for transportation by air, we inadvertently considered only the short circuit protection requirement contained in Packing Instruction 971 and did not account for the Special Provision A186 short circuit requirement for capacitors or capacitors in a module with an energy storage capacity less than or equal to 10 Wh. In their appeals, DGAC and Kilofarad

International brought this inconsistency to our attention. We acknowledge this oversight and in this final rule we are revising paragraphs (a)(2)(i) and (a)(2)(ii) of § 173.176 by removing the references to "transport by air" to maintain consistency with Special Provision A186 of the ICAO TI.

#### Section 173.185

This section prescribes packaging requirements and certain conditional exceptions for the transport of lithium batteries. As DGAC correctly pointed out in their appeal, we did not include a grandfather provision for cells and batteries of a type that meets the 5th revised edition consistent with previous practice. While this does not change our intent to continue to permit the continued manufacture and transportation of lithium cells and batteries of a type meeting the requirements a previously authorized edition of the UN Manual of Tests and Criteria, we agree this may result in confusion and unnecessary retesting of previously validated designs. We are revising § 173.185 by clarifying that, irrespective of the January 1, 2006 date in § 173.185(a)(1), newly manufactured cells and batteries of a type successfully tested to the UN Manual of Tests and Criteria 3rd edition amendment 1 or a later edition may be transported without the need for the cell or battery type to be retested and that cells and batteries already distributed and tested to a previous edition of the Manual may continue to be transported.

#### Section 173.225

Section 173.225 prescribes the packaging requirements and other provisions for organic peroxides. Paragraph (c) of this section contains and describes the organic peroxide table and how specific organic peroxides are to be transported. In addition, paragraph (e) contains a separate table that prescribes the packaging requirements for organic peroxides packaged in IBCs.

In the HM-215L final rule, we made several changes to the § 173.225(c) Organic Peroxide Table. The instruction to the **Federal Register** for the revision of Diisopropyl peroxydicarbonate, UN 3115, was not clear and the incorrect table entry was modified in error. In this document we are re-adding Diisopropyl peroxydicarbonate, UN3112, to the table and removing the entry for Diisopropyl peroxydicarbonate, UN3115, ≤28 Concentration (mass %), ≥72 Diluent (mass %) A. For clarity, we are removing all entries for Diisopropyl peroxydicarbonate and re-adding in the correct sequence.

In the HM-215L final rule, we made several changes to the § 173.225(e) Organic Peroxide IBC Table. The instruction to the **Federal Register** was not clear for the addition of UN3119 “Diisobutyl peroxide, not more than 28% as a stable dispersion in water” and UN3119, “Diisobutyl peroxide, not more than 42% as a stable dispersion in water” and the entries were incorrectly added under the UN3109 table entries. The IBC Type “31A” was inadvertently removed from the entry for “Di-(3, 5, 5-trimethylhexanoyl) peroxide, not more than 52% in diluent type A”. We are republishing the complete Organic Peroxide IBC Table to correct the errors provided above and properly alphabetize the entries.

#### Section 173.230

Section 173.230 prescribes the transport requirements for fuel cell cartridges containing hazardous material. In this final rule, we are revising § 173.230(f)(3) to correct a minor grammatical error by removing the duplicative instance of the word “to”, published in the HM-215L final rule.

#### Section 173.301b

Section 173.301b provides additional general requirements for shipment of UN pressure receptacles. We are revising § 173.301b(d)(1) to correct a minor grammatical error in the HM-215L final rule by replacing a period with a semicolon.

#### Part 175

##### Section 175.10

Section 175.10 specifies the conditions for which passengers, crew members, or an operator may carry hazardous materials aboard an aircraft. We are correcting several editorial errors published in the HM-215L final rule. Paragraph (a)(15)(v)(C) is amended to correctly reference Special Provision 130. In paragraphs (a)(19)(vii) and (a)(19)(viii) the International Electrotechnical Commission (IEC) reference standard is corrected. Paragraph (a)(21) is revised to correct the numbering sequence. Paragraph (a)(24) is amended from 2.8 g to correctly state “equivalent to a 28 g carbon dioxide cartridge,” consistent with the ICAO TI.

##### Section 175.25

Section 175.25 prescribes the notification that operators must provide to passengers regarding restrictions on the types of hazardous material they may or may not carry aboard an aircraft on their person or in checked or carry-

on baggage. The January 19, 2011 HM-215K final rule revised provisions in § 175.25 applicable to notification and acknowledgement of the types of hazardous materials that a passenger may or may not carry aboard an aircraft by updating the ticketing and flight check-in provisions of the HMR based on current technologies used to perform such functions.

Subsequent to issuance of the final rule, PHMSA and FAA received several administrative appeals, and, at an August 16, 2012 public meeting, received written and oral comments requesting additional time for affected entities to implement the new provisions in a more effective and cooperative manner. PHMSA and FAA agreed that a delay in the compliance date of the revised § 175.25 was warranted, particularly if a delay supported the implementation of more effective methods for increasing passenger awareness of, and compliance with, the HMR. Therefore, PHMSA and FAA provided notification of extending the compliance date for all new provisions adopted in the January 19, 2011 final rule until January 1, 2015.

In this final rule, PHMSA is revising paragraphs (b) and (c) by removing the first sentence in each paragraph for editorial purposes and clarity as the two sentences are redundant. Because the requirements of paragraphs (a), (b), and (c) are not mutually exclusive, the two sentences are extraneous and not necessary. Lastly, existing paragraph (c)(2) is redesignated as new paragraph (d) for clarity.

We want to emphasize these clarifications are for editorial purposes only and do not impose any new requirements. Further, such clarifications do not remove or relax any current or future § 175.25 regulatory requirements.

##### Section 175.75

Section 175.75 prescribes quantity limitation and cargo location requirements for hazardous materials carried aboard passenger-carrying and cargo-only aircraft. In this final rule, we are amending the list of materials that are excepted from the inaccessible loading restrictions in paragraphs (c), (d), and note 1 of the table in paragraph (f) to include articles with Identification Numbers UN0012, UN0014, and UN0055, that are properly prepared under the provisions prescribed in § 173.63(b). These amendments are in response to an administrative appeal submitted by SAAMI. In its appeal, SAAMI requested clarification to ensure that shipments of these three commodities, properly prepared in

accordance with the requirements of § 173.63(b), are eligible for relief from the loading limits in § 175.75. It was never our intent to subject these articles that have historically received relief from the accessibility requirements of § 175.75 to these requirements. An article with Identification Numbers UN0012, UN0014, or UN0055, properly packaged and marked in accordance with § 173.63(b), is excepted from the requirements of § 175.75(c) and (e)(1) if it is declared on air transport shipping papers as a limited quantity or not.

In the January 19, 2011 HM-215K final rule, the HMR was amended to align with international standards by revising the notes to the paragraph (f) Quantity and Loading Table that excepted certain cargo-aircraft only packages from the accessible loading restrictions. For example, Note (a) to Note 1 was revised to except cargo-only flammable liquids substances of Class 3, Packing Group III from the accessible loading restrictions unless it was labeled with a corrosive (Class 8) subsidiary risk. However, Note (b) to Note 1 was not revised by excepting a cargo-only toxic liquid substance of Division 6.1 from the accessible loading restrictions unless it was labeled with a subsidiary risk other than flammable liquid (Class 3). As a result, revised Note (a) conflicts with existing Note (b). Therefore, in this final rule, we are revising Note (b) to align with the international standards by clarifying the accessible loading restrictions prescribed in § 175.75(f) do not apply to a cargo-only toxic liquid substance of Division 6.1 unless it is labeled with a subsidiary risk other than flammable liquid (Class 3).

#### Part 176

##### Section 176.905

Section 176.905 prescribes specific requirements for motor vehicles or mechanical equipment powered by internal combustion engines that are offered for transportation and transported by vessel. In this final rule, we are correcting a numbering error that occurred in the January 7, 2013 final rule in paragraph (i).

#### Part 178

##### Sections 178.601, 178.801 and 178.955

Sections 178.601, 178.801, and 178.955, set forth recordkeeping requirements for packaging manufacturers, design type testers, and periodic testers. In the HM-219 final rule, we revised the language in § 178.601(l), which specified recordkeeping requirements for testing non-bulk packaging; § 178.801(l), which

specified recordkeeping requirements for testing IBCs; and § 178.955(i), which specified recordkeeping requirements for testing large packagings, to indicate that records must be maintained by the manufacturer for as long as the packaging is made and two years thereafter; the person performing the design testing until the next required periodic retest is successfully performed, a new test report is produced, and five years thereafter; and the person performing the periodic retest until the next required periodic retest is successfully performed and a new test report produced. We received an administrative appeal from RIPA that indicated that the revisions made in the HM-219 final rule to §§ 178.601, 178.801, and 178.955, may be unclear. In response to that appeal, we are revising the recordkeeping for design testers to require that the design test is maintained for a single or composite packaging for six years after the test is successfully performed and for a combination packaging or packaging intended for infectious substances for seven years after the test is successfully performed.

#### IV. Regulatory Analyses and Notices

##### A. Statutory/Legal Authority for This Rulemaking

This final rule is published under the following statutory authorities:

1. 49 U.S.C. 5103(b) authorizes the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce. This final rule responds to appeals and corrects various errors made during the development of the two January 7, 2013, the March 7, 2013, and the March 11, 2013 final rules and printing process. To this end, as discussed in detail earlier in this preamble, the two January 7, 2013 final rules amended the HMR to more fully align it with the biennial updates of the UN Recommendations, the IMDG Code and the ICAO TI to facilitate the transport of hazardous materials in international commerce.

2. 49 U.S.C. 5120(b) authorizes the Secretary of Transportation to ensure that, to the extent practicable, regulations governing the transportation of hazardous materials in commerce are consistent with standards adopted by international authorities. This final rule responds to appeals and corrects errors made during the development of the two January 7, 2013, the March 7, 2013, and the March 11, 2013 final rules and printing process and makes

amendments to conform to amendments made in these four final rules.

##### B. Executive Orders 12866 and 13563 and DOT Regulatory Policies and Procedures

This final rule is not considered a significant regulatory action under section 3(f) of Executive Order 12866 (“Regulatory Planning and Review”) and, therefore, was not reviewed by the Office of Management and Budget. This final rule is not considered a significant rule under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034). Additionally, E.O. 13563 (“Improving Regulation and Regulatory Review”) supplements and reaffirms E.O. 12866, stressing that, to the extent permitted by law, an agency rulemaking action must be based on benefits that justify its costs, impose the least burden, consider cumulative burdens, maximize benefits, use performance objectives, and assess available alternatives. The revisions adopted in this final rule do not alter the cost-benefit analysis and conclusions contained in the Regulatory Evaluations in the two January 7, 2013 final rules. The Regulatory Evaluations are available for review in the public docket.

##### C. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria in Executive Order 13132 (“Federalism”). This final rule does not adopt any regulation that: (1) Has substantial direct effects on the states, the relationship between the national government and the states, or the distribution of power and responsibilities among the various levels of government; or (2) imposes substantial direct compliance costs on state and local governments. PHMSA is not aware of any state, local or Indian tribe requirements that would be preempted by correcting editorial errors and making minor regulatory changes. This final rule does not have sufficient federalism impacts to warrant the preparation of a federalism assessment.

##### D. Executive Order 13175

This final rule was analyzed in accordance with the principles and criteria contained in Executive Order 13175 (“Consultation and Coordination with Indian Tribal Governments”). Because this final rule does not have tribal implications and, does not impose substantial direct compliance costs the funding and consultation requirements of Executive Order 13175 do not apply.

##### E. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities unless the agency determines that a rule is not expected to have a significant impact on a substantial number of small entities. The corrections and revisions contained in this final rule will have little or no effect on the regulated industry. Based on the assessment in the regulatory evaluation, to the two January 7, 2013 final rules, I hereby certify that, while this rule applies to a substantial number of small entities, there will not be a significant economic impact on those small entities. A detailed Regulatory Flexibility analysis is available for review in the docket.

This final rule has been developed in accordance with Executive Order 13272 (“Proper Consideration of Small Entities in Agency Rulemaking”) and DOT’s procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts of final rules on small entities are properly considered.

##### F. Paperwork Reduction Act

This final rule imposes no new information collection requirements.

##### G. Regulation Identifier Number (RIN)

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center generally publishes the Unified Agenda in April and October of each year. The RIN contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

##### H. Unfunded Mandates Reform Act

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of \$141.3 million or more, adjusted for inflation, to either State, local, or tribal governments, in the aggregate, or to the private sector in any one year, and is the least burdensome alternative that achieves the objective of the rule.

##### I. Environmental Assessment

The National Environmental Policy Act, 42 U.S.C. 4321–4375 requires that Federal agencies consider the consequences of major Federal actions and prepare a detailed statement on actions significantly affecting the quality of the human environment. In final rules PHMSA–2009–0126 (HM–

215K), PHMSA–2012–0027 (HM–215L), PHMSA–2011–0138 (HM–218G), and PHMSA–2011–0142 (HM–219), we developed environmental assessments to determine the effects of these revisions on the environment and whether they resulted in significant environmental impacts. These assessments resulted in a Finding of No Significant Impact. The purpose of this rulemaking is to correct editorial errors, makes minor regulatory changes and, in response to requests for clarification, improves the clarity of certain provisions in the HMR. The intended effect of this rule is to enhance the accuracy and reduce misunderstandings of the regulations. The amendments contained in this rule are non-substantive changes and do not impose new requirements. Therefore, PHMSA has determined that the implementation of this final rule will not have any significant impact on the quality of the human environment. For interested parties, environmental assessments are included in the PHMSA–2009–0126 (HM–215K), PHMSA–2012–0027 (HM–215L), PHMSA–2011–0138 (HM–218G), and PHMSA–2011–0142 (HM–219) final rules which are available in the public docket.

*J. Privacy Act*

Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comments (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT’s complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78) which may be viewed at <http://www.dot.gov/privacy>.

*K. Executive Order 13609 and International Trade Analysis*

Under E.O. 13609, agencies must consider whether the impacts associated with significant variations between domestic and international regulatory approaches are unnecessary or may impair the ability of American business to export and compete internationally. In meeting shared challenges involving health, safety, labor, security, environmental, and other issues, international regulatory cooperation can identify approaches that are at least as protective as those that are or would be adopted in the absence of such cooperation. International regulatory cooperation can also reduce, eliminate, or prevent unnecessary differences in regulatory requirements.

Similarly, the Trade Agreements Act of 1979 (Pub. L. 96–39), as amended by the Uruguay Round Agreements Act (Pub. L. 103–465), prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. For purposes of these requirements, Federal agencies may participate in the establishment of international standards, so long as the standards have a legitimate domestic objective, such as providing for safety, and do not operate to exclude imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards.

PHMSA participates in the establishment of international standards to protect the safety of the American public, and we have assessed the effects of this final rule to ensure that it does not cause unnecessary obstacles to foreign trade. In fact, the rule is designed to facilitate international trade. Accordingly, this rulemaking is consistent with E.O. 13609 and PHMSA’s obligations under the Trade Agreement Act, as amended.

**List of Subjects**

*49 CFR Part 171*

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

*49 CFR Part 172*

Education, Hazardous materials transportation, Hazardous waste, Incorporation by reference, Labeling, Markings, Packaging and containers, Reporting and recordkeeping requirements.

*49 CFR Part 173*

Hazardous materials transportation, Incorporation by reference, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

*49 CFR Part 175*

Air carriers, Hazardous materials transportation, Incorporation by reference, Radioactive materials, Reporting and recordkeeping requirements.

*49 CFR Part 176*

Hazardous materials transportation, Incorporation by reference, Maritime carriers, Radioactive materials, Reporting and recordkeeping requirements.

*49 CFR Part 178*

Hazardous materials transportation, Incorporation by reference, Motor vehicle safety, Packaging and containers, Reporting and recordkeeping requirements.

In consideration of the foregoing, PHMSA is amending 49 CFR Chapter I as follows:

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

■ 1. The authority citation for part 171 continues to read as follows:

**Authority:** 49 U.S.C. 5101–5128, 44701; 49 CFR 1.81 and 1.97; Pub. L. 101–410 section 4 (28 U.S.C. 2461 note); Pub. L. 104–134 section 31001.

■ 2. In § 171.7, paragraph (dd)(2) is revised to read as follows:

**§ 171.7 Reference material.**

\* \* \* \* \*

(dd) \* \* \*  
(2) UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria, (Manual of Tests and Criteria), into §§ 172.102; 173.21; 173.56; 173.57; 173.58; 173.60; 173.115; 173.124; 173.125; 173.127; 173.128; 173.137; 173.185; 173.220; part 173, appendix H; 178.274:

(i) Fifth revised edition (2009).  
(ii) Fifth revised edition, amendment 1 (2011).

\* \* \* \* \*

■ 3. In § 171.8, the definition of “Aircraft battery” is added in alphabetical order to read as follows:

**§ 171.8 Definitions and abbreviations.**

\* \* \* \* \*

*Aircraft battery* means a battery designed in accordance with a recognized aircraft battery design standard (e.g. FAA technical standard order) that is capable of meeting all aircraft airworthiness requirements and operating regulations.

\* \* \* \* \*

■ 4. In § 171.23, paragraph (b)(8) is revised to read as follows:

**§ 171.23 Requirements for specific materials and packagings transported under the ICAO Technical Instructions, IMDG Code, Transport Canada TDG Regulations, or the IAEA Regulations.**

\* \* \* \* \*

(b) \* \* \*  
(8) *Organic peroxides.* Organic peroxides not identified by technical name in the Organic Peroxide Table in § 173.225(c) of this subchapter must be approved by the Associate Administrator in accordance with § 173.128(d) of this subchapter.

\* \* \* \* \*

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

■ 5. The authority citation for part 172 continues to read as follows:

Authority: 49 U.S.C. 5101–5128; 44701; 49 CFR 1.81 and 1.97.

■ 6. In § 172.101, the Hazardous Materials Table is amended by removing the entries under “[REMOVE]”, and revising entries under “[REVISE]” and adding entries under “[ADD]” in alphabetical order.

The revisions and additions read as follows:

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

\* \* \* \* \*

| (1) Sym-bols | (2) Hazardous materials descriptions and proper shipping names | (3) Hazard class or division | (4) Identification numbers | (5) PG | (6) Label codes | (7) Special provisions (§ 172.102) | (8) Packaging (§ 173.***) |          |      | (9) Quantity limitations (see §§ 173.27 and 175.75) |                     | (10) Vessel stowage |             |
|--------------|--|------------------------------|----------------------------|--------|-----------------|------------------------------------|---------------------------|----------|------|---|---------------------|---------------------|-------------|
|              |  |                              |                            |        |                 |                                    | Excep-tions               | Non-bulk | Bulk | Passenger aircraft/rail                             | Cargo aircraft only |                     |             |
| (1)          | (2)  | (3)                          | (4)                        | (5)    | (6)             | (7)                                | (8A)                      | (8B)     | (8C) | (9A)  | (9B)                | (10A)               | (10B)       |
|              | [REMOVE]   |                              |                            |        |                 |                                    |                           |          |      |   |                     |                     |             |
|              | Aerosols, poison, (each not exceeding 1 L capacity).           | 2.2                          | UN1950                     |        | 2.2, 6.1        |                                    | 306                       | None     | None | Forbidden   | Forbidden           | A                   | 48, 87, 126 |
| G            | Organometallic substance, liquid, pyrophoric.                  | 4.2                          | UN3392                     | I      | 4.2             | B11, T21, TP2, TP7, TP36.          | None                      | 181      | 244  | Forbidden   | Forbidden           | D                   | 78          |
| G            | Organometallic substance, liquid, pyrophoric, water-reactive.  | 4.2                          | UN3394                     | I      | 4.2, 4.3        | B11, T21, TP2, TP7, TP36.          | None                      | 181      | 244  | Forbidden   | Forbidden           | D                   | 78          |
| G            | Organometallic substance, liquid, water-reactive.              | 4.3                          | UN3398                     | I      | 4.3             | T13, TP2, TP7, TP36.               | None                      | 201      | 244  | Forbidden   | 1 L                 | E                   | 40, 52      |
|              |  |                              |                            | II     | 4.3             | IB1, T7, TP2, TP7, TP36.           | None                      | 202      | 243  | 1 L   |                     | E                   | 40, 52      |
|              |  |                              |                            | III    | 4.3             | IB2, T7, TP2, TP7, TP36.           | None                      | 203      | 242  | 5 L   |                     | E                   | 40, 52      |
| G            | Organometallic substance, liquid, water-reactive, flammable.   | 4.3                          | UN3399                     | I      | 4.3, 3          | T13, TP2, TP7, TP36.               | None                      | 201      | 244  | Forbidden   | 1 L                 | D                   | 40, 52      |
|              |  |                              |                            | II     | 4.3, 3          | IB1, IP2, T7, TP2, TP7, TP36.      | None                      | 202      | 243  | 1 L   |                     | D                   | 40, 52      |
|              |  |                              |                            | III    | 4.3, 3          | IB2, IP4, T7, TP2, TP7, TP36.      | None                      | 203      | 242  | 5 L   |                     | E                   | 40, 52      |
| G            | Organometallic substance, solid, pyrophoric.                   | 4.2                          | UN3391                     | I      | 4.2             | T21, TP7, TP33, TP36.              | None                      | 187      | 244  | Forbidden   | Forbidden           | D                   |             |
| G            | Organometallic substance, solid, pyrophoric, water-reactive.   | 4.2                          | UN3393                     | I      | 4.2, 4.3        | B11, T21, TP7, TP33.               | None                      | 187      | 244  | Forbidden   | Forbidden           | D                   | 52          |
|              |  |                              |                            | II     | 4.2             | IB6, T3, TP33, TP36.               | None                      | 212      | 242  | 15 kg   |                     | C                   |             |
|              |  |                              |                            | III    | 4.2             | IB8, T1, TP33, TP36.               | None                      | 213      | 242  | 25 kg   |                     | C                   |             |
| G            | Organometallic substance, solid, water-reactive.               | 4.3                          | UN3395                     | I      | 4.3             | N40, T9, TP7, TP33, TP36.          | None                      | 211      | 242  | Forbidden   | 15 kg               | E                   | 40, 52      |
|              |  |                              |                            | II     | 4.3             | IB4, T3, TP33, TP36.               | 151                       | 212      | 242  | 15 kg   |                     | E                   | 40, 52      |
|              |  |                              |                            | III    | 4.3             | IB6, T1, TP33, TP36.               | 151                       | 213      | 241  | 25 kg   |                     | E                   | 40, 52      |
| G            | Organometallic substance, solid, water-reactive, flammable.    | 4.3                          | UN3396                     | I      | 4.3, 4.1        | N40, T9, TP7, TP33, TP36.          | None                      | 211      | 242  | Forbidden   | 15 kg               | E                   | 40, 52      |
|              |  |                              |                            | II     | 4.3, 4.1        | IB4, T3, TP33, TP36.               | 151                       | 212      | 242  | 15 kg   |                     | E                   | 40, 52      |
|              |  |                              |                            | III    | 4.3, 4.1        | IB6, T1, TP33, TP36.               | 151                       | 213      | 241  | 25 kg   |                     | E                   | 40, 52      |
| G            | Organometallic substance, solid, water-reactive, self-heating. | 4.3                          | UN3397                     | I      | 4.3, 4.2        | N40, T9, TP7, TP33, TP36.          | None                      | 211      | 242  | Forbidden   | 15 kg               | E                   | 40, 52      |
|              |  |                              |                            | II     | 4.3, 4.2        | IB4, T3, TP33, TP36.               | None                      | 212      | 242  | 15 kg   |                     | E                   | 40, 52      |
|              |  |                              |                            | III    | 4.3, 4.2        | IB6, T1, TP33, TP36.               | None                      | 213      | 241  | 25 kg   |                     | E                   | 40, 52      |
| G            | Organometallic substance, solid, pyrophoric.                   | 4.2                          | UN3391                     | I      | 4.2             | T21, TP7, TP33                     | None                      | 187      | 244  | Forbidden   | Forbidden           | D                   |             |

| Class | Substance  | UN/NA      | Section   | Sub-section | Other | None | 187  | 244       | Forbidden | Forbidden | D      | 52 |
|-------|--|------------|---|-------------|-------|------|------|-----------|-----------|-----------|--------|----|
| G     | Organometallic substance, solid, pyrophoric, water-reactive.   | 4.2 UN3393 | B11, T21, TP7, TP33.  |             | None  | 187  | 244  | Forbidden | Forbidden | D         | 52     |    |
| G     | Organometallic substance, solid, self-heating.                 | 4.2 UN3400 | IB6, T3, TP33   |             | None  | 212  | 242  | 15 kg     | 50 kg     | C         |        |    |
| G     | Organometallic substance, solid, water-reactive.               | 4.3 UN3395 | IB8, T1, TP33<br>N40, T9, TP7, TP33   |             | None  | 203  | 242  | 25 kg     | 100 kg    | C         |        |    |
| G     | Organometallic substance, solid, water-reactive, flammable.    | 4.3 UN3396 | IB4, T3, TP33<br>IB6, T1, TP33<br>N40, T9, TP7, TP33                                    |             | 151   | 212  | 242  | 15 kg     | 50 kg     | E         | 40, 52 |    |
| G     | Organometallic substance, solid, water-reactive, self-heating. | 4.3 UN3397 | IB4, T3, TP33<br>IB6, T1, TP33<br>N40, T9, TP7, TP33                                    |             | 151   | 213  | 241  | 25 kg     | 100 kg    | E         | 40, 52 |    |
| D     | Petroleum oil  | 3 NA1270   | 144, T11, TP1<br>144, IB2, T7, TP1, TP8, TP28.  |             | None  | 201  | 243  | 1 L       | 30 L      | E         |        |    |
| I     | Petroleum sour crude oil, flammable, toxic.                    | 3 UN3494   | 343, T14, TP2, TP13.  |             | None  | 201  | 243  | Forbidden | 30 L      | D         | 40     |    |
| G     | Self-reactive solid type F                                     | 4.1 UN3230 | 144, B1, IB3, T4, TP1, TP29.  |             | 150   | 203  | 242  | 60 L      | 220 L     | A         |        |    |
| [ADD] |  |            |   |             | 151   | 224  | None | 10 kg     | 25 kg     | D         | 52, 53 |    |
| G     | Organometallic substance, liquid, pyrophoric.                  | 4.2 UN3392 | B11, T21, TP2, TP7, TP36.   |             | None  | 181  | 244  | Forbidden | Forbidden | D         | 78     |    |
| G     | Organometallic substance, liquid, pyrophoric, water-reactive.  | 4.2 UN3394 | B11, T21, TP2, TP7, TP36.   |             | None  | 181  | 244  | Forbidden | Forbidden | D         | 78     |    |
| G     | Organometallic substance, liquid, water-reactive, active.      | 4.3 UN3398 | T13, TP2, TP7, TP36.  |             | None  | 201  | 244  | Forbidden | 1 L       | E         | 40, 52 |    |
| G     | Organometallic substance, liquid, water-reactive, flammable.   | 4.3 UN3399 | IB1, T7, TP2, TP7, TP36.<br>IB2, T7, TP2, TP7, TP36.<br>T13, TP2, TP7, TP36.            |             | None  | 202  | 243  | 1 L       | 5 L       | E         | 40, 52 |    |
| G     | Organometallic substance, solid, pyrophoric.                   | 4.2 UN3391 | IB1, IP2, T7, TP2, TP7, TP36.<br>IB2, IP4, T7, TP2, TP7, TP36.<br>T21, TP7, TP33, TP36. |             | None  | 202  | 243  | 1 L       | 5 L       | D         | 40, 52 |    |
| G     | Organometallic substance, solid, pyrophoric.                   | 4.2 UN3393 | B11, T21, TP7, TP33, TP36.  |             | None  | 187  | 244  | Forbidden | Forbidden | D         | 52     |    |
| G     | Organometallic substance, solid, self-heating.                 | 4.2 UN3400 | IB6, T3, TP33, TP36.  |             | None  | 212  | 242  | 15 kg     | 50 kg     | C         |        |    |
| G     | Organometallic substance, solid, self-heating.                 | 4.2 UN3400 | IB8, T1, TP33, TP36.  |             | None  | 213  | 242  | 25 kg     | 100 kg    | C         |        |    |

| Sym-bols | Hazardous materials descriptions and proper shipping names                                     | Hazard class or division | Identification numbers | PG   | Label codes | Special provisions (§ 172.102) | Packaging (§ 173.***) |          |         | Quantity limitations (see §§ 173.27 and 175.75) |                     | Vessel stowage |        |
|----------|--|--------------------------|------------------------|------|-------------|--------------------------------|-----------------------|----------|---------|---|---------------------|----------------|--------|
|          |  |                          |                        |      |             |                                | Excep-tions           | Non-bulk | Bulk    | Passenger aircraft/rail                         | Cargo aircraft only | Location       | Other  |
| (1)      | (2)  | (3)                      | (4)                    | (5)  | (6)         | (7)                            | (8A)                  | (8B)     | (8C)    | (9A)  | (9B)                | (10A)          | (10B)  |
| G        | Organometallic sub-stance, solid, water-re-active.   | 4.3                      | UN3395                 | I    | 4.3         | N40, T9, TP7, TP33, TP36.      | None                  | 211      | 242     | Forbidden                                       | 15 kg               | E              | 40, 52 |
|          |  |                          |                        | II   | 4.3         | IB4, T3, TP33, TP36.           | 151                   | 212      | 242     | 15 kg   | 50 kg               | E              | 40, 52 |
|          |  |                          |                        | III  | 4.3         | IB6, T1, TP33, TP36.           | 151                   | 213      | 241     | 25 kg   | 100 kg              | E              | 40, 52 |
| G        | Organometallic sub-stance, solid, water-re-active, flammable.                                  | 4.3                      | UN3396                 | I    | 4.3, 4.1    | N40, T9, TP7, TP33, TP36.      | None                  | 211      | 242     | Forbidden                                       | 15 kg               | E              | 40, 52 |
|          |  |                          |                        | II   | 4.3, 4.1    | IB4, T3, TP33, TP36.           | 151                   | 212      | 242     | 15 kg   | 50 kg               | E              | 40, 52 |
|          |  |                          |                        | III  | 4.3, 4.1    | IB6, T1, TP33, TP36.           | 151                   | 213      | 241     | 25 kg   | 100 kg              | E              | 40, 52 |
| G        | Organometallic sub-stance, solid, water-re-active, self-heating.                               | 4.3                      | UN3397                 | I    | 4.3, 4.2    | N40, T9, TP7, TP33, TP36.      | None                  | 211      | 242     | Forbidden                                       | 15 kg               | E              | 40, 52 |
|          |  |                          |                        | II   | 4.3, 4.2    | IB4, T3, TP33, TP36.           | None                  | 212      | 242     | 15 kg   | 50 kg               | E              | 40, 52 |
|          |  |                          |                        | III  | 4.3, 4.2    | IB6, T1, TP33, TP36.           | None                  | 213      | 241     | 25 kg   | 100 kg              | E              | 40, 52 |
| D        | Petroleum oil  | 3                        | NA1270                 | I    | 3           | 144, T11, TP1                  | None                  | 201      | 243     | 1 L   | 30 L                | E              |        |
|          |  |                          |                        | II   | 3           | 144, IB2, T7, TP1, TP8, TP28.  | 150                   | 202      | 242     | 5 L   | 60 L                | B              |        |
|          |  |                          |                        | III  | 3           | 144, B1, IB3, T4, TP1, TP29.   | 150                   | 203      | 242     | 60 L  | 220 L               | A              |        |
| I        | Petroleum sour crude oil, flammable, toxic.  | 3                        | UN3494                 | I    | 3, 6.1      | 343, T14, TP2, TP13.           | None                  | 201      | 243     | Forbidden                                       | 30 L                | D              | 40     |
| G        | Self-reactive solid type E   | 4.1                      | UN3228                 | II   | 4.1         |                                | 151                   | 224      | None    | 10 kg   | 25 kg               | D              | 52, 53 |
|          | [REVISE]   |                          |                        |      |             |                                |                       |          |         |   |                     |                |        |
|          | Cartridges for weapons, blank or Cartridges, small arms, blank or Cartridges for tools, blank. | 1.4S                     | UN0014                 | II   | None        |                                | 63                    | 62       | None    | 25 kg   | 100 kg              | 01             | 25     |
|          | Cartridges for weapons, inert projectile or Cartridges, small arms.                            | 1.4S                     | UN0012                 | II   | None        |                                | 63                    | 62       | None    | 25 kg   | 100 kg              | 01             | 25     |
|          | Cartridges, power device   | 1.4S                     | UN0323                 | II   | 1.4S        | 110, 347                       | 63                    | 62       | 62      | 25 kg   | 100 kg              | 01             | 25     |
| D        | Cartridges power device (used to project fastening devices).                                   | ORM-D                    |                        | None | None        | 222                            | 63                    | None     | None    | 30 kg gross                                     | Forbidden           | A              |        |
| D        | Consumer commodity   | ORM-D                    |                        | None | None        | 222                            | 156, 306              | 156, 306 | None    | 30 kg gross                                     | Forbidden           | A              |        |
| G        | Chemical under pres-sure, corrosive, n.o.s.  | 2.2                      | UN3503                 |      | 2.2, 8      | 362, T50, TP40                 | None                  | 335      | 313,315 | Forbidden                                       | 100 kg              | D              | 40     |
| G        | Chemical under pres-sure, flammable, corro-sive, n.o.s.  | 2.1                      | UN3505                 |      | 2.1, 8      | 362, T50, TP40                 | None                  | 335      | 313,315 | Forbidden                                       | 75 kg               | D              | 40     |

|   |      |        |  |          |                    |      |     |         |           |           |    |         |
|---|------|--------|--|----------|--------------------|------|-----|---------|-----------|-----------|----|---------|
| G | 2.1  | UN3501 | Chemical under pressure, flammable, n.o.s.   | 2.1      | 362, T50, TP40     | None | 335 | 313.315 | Forbidden | 75 kg     | D  | 40      |
| G | 2.1  | UN3504 | Chemical under pressure, flammable, toxic, n.o.s.  | 2.1, 6.1 | 362, T50, TP40     | None | 335 | 313.315 | Forbidden | 75 kg     | D  | 40      |
| G | 2.2  | UN3500 | Chemical under pressure, n.o.s.  | 2.2      | 362, T50, TP40     | None | 335 | 313.315 | 75 kg     | 150 kg    | B  |         |
| G | 2.2  | UN3502 | Chemical under pressure, toxic, n.o.s.   | 2.2, 6.1 | 362, T50, TP40     | None | 335 | 313.315 | Forbidden | 100 kg    | D  | 40      |
| D | 1.4C | NA0276 | Model rocket motor   | 1.4C     | 51                 | None | 62  | None    | Forbidden | 75 kg     | 02 | 25      |
| D | 1.4S | NA0323 | Model rocket motor   | 1.4S     | 51                 | None | 62  | None    | 25 kg     | 100 kg    | 01 | 25      |
| D | 9    | NA3082 | Other regulated substances, liquid, n.o.s.   | 9        | A189, IB3, T2, TP1 | 155  | 203 | 241     | No limit  | No limit  | A  |         |
| D | 1.4C | UN0509 | Powder, smokeless  | 1.4C     | 16                 | 171  | 62  | None    | Forbidden | 75 kg     | 02 | 25      |
|   | 1.4S | UN0044 | Primers, cap type  | 1.4S     |                    | None | 62  | None    | 25 kg     | 100 kg    | 01 | 25      |
|   | 1.1B | UN0377 | Primers, cap type  | 1.1B     |                    | None | 62  | None    | Forbidden | Forbidden | 05 | 25      |
|   | 1.4B | UN0378 | Primers, cap type  | 1.4B     |                    | None | 62  | None    | Forbidden | 75 kg     | 05 | 25      |
|   | 1.3G | UN0319 | Primers, tubular   | 1.3G     |                    | None | 62  | None    | Forbidden | Forbidden | 03 | 25      |
|   | 1.4G | UN0320 | Primers, tubular   | 1.4G     |                    | None | 62  | None    | 25 kg     | 75 kg     | 02 | 25      |
|   | 1.4S | UN0376 | Primers, tubular   | 1.4S     |                    | None | 62  | None    | 25 kg     | 100 kg    | 01 | 25      |
|   | 1.4S | UN0345 | Projectiles, inert with tracer.  | 1.4S     |                    |      | 62  | 62      | 25 kg     | 100 kg    | 01 | 25      |
|   | 1.3G | UN0424 | Projectiles, inert, with tracer.   | 1.3G     |                    |      | 62  | 62      | Forbidden | Forbidden | 03 | 25      |
|   | 1.4G | UN0425 | Projectiles, inert, with tracer.   | 1.4G     |                    |      | 62  | 62      | Forbidden | 75 kg     | 02 | 25      |
|   | 1.2D | UN0346 | Projectiles, with burster or expelling charge.   | 1.2D     |                    |      | 62  | 62      | Forbidden | Forbidden | 04 | 25      |
|   | 1.4D | UN0347 | Projectiles, with burster or expelling charge.   | 1.4D     |                    |      | 62  | 62      | Forbidden | 75 kg     | 02 | 25      |
|   | 1.2F | UN0426 | Projectiles, with burster or expelling charge.   | 1.2F     |                    |      | 62  | None    | Forbidden | Forbidden | 05 | 25      |
|   | 1.4F | UN0427 | Projectiles, with burster or expelling charge.   | 1.4F     |                    |      | 62  | None    | Forbidden | Forbidden | 05 | 25      |
|   | 1.2G | UN0434 | Projectiles, with burster or expelling charge.   | 1.2G     |                    |      | 62  | 62      | Forbidden | Forbidden | 03 | 25      |
|   | 1.4G | UN0435 | Projectiles, with burster or expelling charge.   | 1.4G     |                    |      | 62  | 62      | Forbidden | 75 kg     | 02 | 25      |
|   | 1.1F | UN0167 | Projectiles, with bursting charge.   | 1.1F     |                    |      | 62  | None    | Forbidden | Forbidden | 05 | 25      |
|   | 1.1D | UN0168 | Projectiles, with bursting charge.   | 1.1D     |                    |      | 62  | 62      | Forbidden | Forbidden | 04 | 25      |
|   | 1.2D | UN0169 | Projectiles, with bursting charge.   | 1.2D     |                    |      | 62  | 62      | Forbidden | Forbidden | 04 | 25      |
|   | 1.2F | UN0324 | Projectiles, with bursting charge.   | 1.2F     |                    |      | 62  | None    | Forbidden | Forbidden | 05 | 25      |
|   | 1.4D | UN0344 | Projectiles, with bursting charge.   | 1.4D     |                    |      | 62  | 62      | Forbidden | 75 kg     | 02 | 25      |
|   | 1.3C | UN0495 | Propellant, liquid   | 1.3C     | 37                 | None | 62  | None    | Forbidden | Forbidden | 04 | 25      |
|   | 1.1C | UN0497 | Propellant, liquid   | 1.1C     | 37                 | None | 62  | None    | Forbidden | Forbidden | 04 | 25      |
|   | 1.1C | UN0498 | Propellant, solid  | 1.1C     |                    | None | 62  | None    | Forbidden | Forbidden | 04 | 25, 26E |
|   | 1.3C | UN0499 | Propellant, solid  | 1.3C     |                    | None | 62  | None    | Forbidden | Forbidden | 04 | 25, 26E |
|   | 1.4C | UN0501 | Propellant, solid  | 1.4C     |                    | None | 62  | None    | Forbidden | Forbidden | 02 | 25, 24E |
|   | 1.1D | UN0391 | RDX and HMX mixtures, wetted with not less than 15 percent water by mass or RDX and HMX mixtures, desensitized with not less than 10 percent phlegmatizer by mass. | 1.1D     |                    | None | 62  | None    | Forbidden | Forbidden | 04 | 25      |

| Sym-bols | Hazardous materials descriptions and proper shipping names                 | Hazard class or division | Identification numbers | PG  | Label codes | Special provisions (§ 172.102) | Packaging (§ 173.***) |          |      | Quantity limitations (see §§ 173.27 and 175.75) |                     |           | Vessel stowage |              |
|----------|--|--------------------------|------------------------|-----|-------------|--------------------------------|-----------------------|----------|------|---|---------------------|-----------|----------------|--------------|
|          |  |                          |                        |     |             |                                | Excep-tions           | Non-bulk | Bulk | Passenger aircraft/rail                         | Cargo aircraft only | Location  |                |              |
| (1)      | (2)  | (3)                      | (4)                    | (5) | (6)         | (7)                            | (8A)                  | (8B)     | (8C) | (9A)  | (9B)                | (10A)     | (10B)          |              |
|          | Release devices, explo-sive.   | 1.4S                     | UN0173                 | II  | 1.4S        | *                              | None                  | 62       | 62   | 25 kg   | *                   | 100 kg    | 01             | 25           |
|          | Rivets, explosive  | 1.4S                     | UN0174                 | II  | 1.4S        | *                              | None                  | 62       | 62   | 25 kg   | *                   | 100 kg    | 01             | 25           |
|          | Rocket motors  | 1.3C                     | UN0186                 | II  | 1.3C        | *                              | None                  | 62       | 62   | Forbidden                                       | *                   | 220 kg    | 04             | 25           |
|          | Rocket motors  | 1.1C                     | UN0280                 | II  | 1.1C        | 109                            | None                  | 62       | 62   | Forbidden                                       | .....               | Forbidden | 04             | 25           |
|          | Rocket motors  | 1.2C                     | UN0281                 | II  | 1.2C        | 109                            | None                  | 62       | 62   | Forbidden                                       | .....               | Forbidden | 04             | 25           |
|          | Rocket motors, liquid fueled.  | 1.2J                     | UN0395                 | II  | 1.2J        | 109                            | None                  | 62       | None | Forbidden                                       | .....               | Forbidden | 05             | 25, 23E      |
|          | Rocket motors, liquid fueled.  | 1.3J                     | UN0396                 | II  | 1.3J        | 109                            | None                  | 62       | None | Forbidden                                       | .....               | Forbidden | 05             | 25, 23E      |
|          | Rocket motors with hypergolic liquids with or without an expelling charge. | 1.3L                     | UN0250                 | II  | 1.3L        | 109                            | None                  | 62       | None | Forbidden                                       | .....               | Forbidden | 05             | 25, 14E, 15E |
|          | Rocket motors with hypergolic liquids with or without an expelling charge. | 1.2L                     | UN0322                 | II  | 1.2L        | 109                            | None                  | 62       | None | Forbidden                                       | .....               | Forbidden | 05             | 25, 14E, 15E |
|          | Rockets, line-throwing   | 1.2G                     | UN0238                 | II  | 1.2G        | .....                          | None                  | 62       | None | Forbidden                                       | .....               | Forbidden | 03             | 25           |
|          | Rockets, line-throwing   | 1.3G                     | UN0240                 | II  | 1.3G        | .....                          | None                  | 62       | None | Forbidden                                       | .....               | 75 kg     | 03             | 25           |
|          | Rockets, line-throwing   | 1.4G                     | UN0453                 | II  | 1.4G        | .....                          | None                  | 62       | None | Forbidden                                       | .....               | 75 kg     | 02             | 25           |
|          | Rockets, liquid fueled with bursting charge.                               | 1.1J                     | UN0397                 | II  | 1.1J        | .....                          | None                  | 62       | None | Forbidden                                       | .....               | Forbidden | 05             | 25, 23E      |
|          | Rockets, liquid fueled with bursting charge.                               | 1.2J                     | UN0398                 | II  | 1.2J        | .....                          | None                  | 62       | None | Forbidden                                       | .....               | Forbidden | 05             | 25, 23E      |
|          | Rockets, with bursting charge.   | 1.1F                     | UN0180                 | II  | 1.1F        | .....                          | None                  | 62       | None | Forbidden                                       | .....               | Forbidden | 05             | 25           |
|          | Rockets, with bursting charge.   | 1.1E                     | UN0181                 | II  | 1.1E        | .....                          | None                  | 62       | 62   | Forbidden                                       | .....               | Forbidden | 04             | 25           |
|          | Rockets, with bursting charge.   | 1.2E                     | UN0182                 | II  | 1.2E        | .....                          | None                  | 62       | 62   | Forbidden                                       | .....               | Forbidden | 04             | 25           |
|          | Rockets, with bursting charge.   | 1.2F                     | UN0295                 | II  | 1.2F        | .....                          | None                  | 62       | None | Forbidden                                       | .....               | Forbidden | 05             | 25           |
|          | Rockets, with expelling charge.  | 1.2C                     | UN0436                 | II  | 1.2C        | .....                          | None                  | 62       | 62   | Forbidden                                       | .....               | Forbidden | 04             | 25           |
|          | Rockets, with expelling charge.  | 1.3C                     | UN0437                 | II  | 1.3C        | .....                          | None                  | 62       | 62   | Forbidden                                       | .....               | Forbidden | 04             | 25           |
|          | Rockets, with expelling charge.  | 1.4C                     | UN0438                 | II  | 1.4C        | .....                          | None                  | 62       | 62   | Forbidden                                       | .....               | 75 kg     | 02             | 25           |
|          | Rockets, with inert head   | 1.3C                     | UN0183                 | II  | 1.3C        | .....                          | None                  | 62       | 62   | Forbidden                                       | .....               | Forbidden | 04             | 25           |
|          | Rockets, with inert head   | 1.2C                     | UN0502                 | II  | 1.2C        | .....                          | None                  | 62       | 62   | Forbidden                                       | .....               | Forbidden | 02             | 25, 5E       |
| G        | Samples, explosive, other than initiating explosives.                      | .....                    | UN0190                 | II  | *           | 113                            | None                  | 62       | None | Forbidden                                       | *                   | Forbidden | 05             | 25           |
|          | Signal devices, hand   | 1.4G                     | UN0191                 | II  | 1.4G        | .....                          | None                  | 62       | None | Forbidden                                       | *                   | 75 kg     | 02             | 25           |
|          | Signal devices, hand   | 1.4S                     | UN0373                 | II  | 1.4S        | .....                          | None                  | 62       | None | 25 kg   | .....               | 100 kg    | 01             | 25           |
|          | Signal devices, ship   | 1.1G                     | UN0194                 | II  | 1.1G        | .....                          | None                  | 62       | None | Forbidden                                       | .....               | Forbidden | 03             | 25           |
|          | Signal devices, ship   | 1.3G                     | UN0195                 | II  | 1.3G        | .....                          | None                  | 62       | None | Forbidden                                       | .....               | 75 kg     | 03             | 25           |
|          | Signal devices, ship   | 1.4G                     | UN0505                 | II  | 1.4G        | .....                          | None                  | 62       | None | Forbidden                                       | .....               | 75 kg     | 02             | 25           |
|          | Signal devices, ship   | 1.4S                     | UN0506                 | II  | 1.4S        | .....                          | None                  | 62       | None | 25 kg   | .....               | 100 kg    | 01             | 25           |
|          | Signals, railway track, explosive.   | 1.1G                     | UN0192                 | II  | 1.1G        | .....                          | None                  | 62       | None | Forbidden                                       | *                   | Forbidden | 03             | 25           |
|          | Signals, railway track, explosive.   | 1.4S                     | UN0193                 | II  | 1.4S        | .....                          | None                  | 62       | None | 25 kg   | .....               | 100 kg    | 01             | 25           |

|   |      |        |       |          |       |      |       |     |       |      |       |           |       |    |       |              |
|---|------|--------|-------|----------|-------|------|-------|-----|-------|------|-------|-----------|-------|----|-------|--------------|
| Signals, railway track, explosive.  | 1.3G | UN0492 | ..... | 1.3G     | ..... | None | ..... | 62  | ..... | None | ..... | Forbidden | ..... | 03 | ..... | 25           |
| Signals, railway track, explosive.  | 1.4G | UN0493 | ..... | 1.4G     | ..... | None | ..... | 62  | ..... | None | ..... | Forbidden | ..... | 02 | ..... | 25           |
| Signals, smoke  | 1.1G | UN0196 | ..... | *        | ..... | None | ..... | 62  | ..... | *    | ..... | Forbidden | ..... | 03 | ..... | 25           |
| Signals, smoke  | 1.4G | UN0197 | ..... | II 1.1G  | ..... | None | ..... | 62  | ..... | None | ..... | Forbidden | ..... | 03 | ..... | 25           |
| Signals, smoke  | 1.2G | UN0313 | ..... | II 1.4G  | ..... | None | ..... | 62  | ..... | None | ..... | Forbidden | ..... | 02 | ..... | 25           |
| Signals, smoke  | 1.3G | UN0487 | ..... | II 1.2G  | ..... | None | ..... | 62  | ..... | None | ..... | Forbidden | ..... | 03 | ..... | 25           |
| Signals, smoke  | 1.4S | UN0507 | ..... | II 1.3G  | ..... | None | ..... | 62  | ..... | None | ..... | Forbidden | ..... | 03 | ..... | 25           |
| Sodium dinitro-oresolate, dry or wetted with less than 15 percent water, by mass. | 1.3C | UN0234 | ..... | 1.4S     | ..... | None | ..... | 62  | ..... | None | ..... | 25 kg     | ..... | 01 | ..... | 25           |
| Sodium picramate, dry or wetted with less than 20 percent water, by mass.         | 1.3C | UN0235 | ..... | II 1.3C  | ..... | None | ..... | 62  | ..... | None | ..... | Forbidden | ..... | 04 | ..... | 25, 5E       |
| Sounding devices, explosive.  | 1.2F | UN0204 | ..... | *        | ..... | None | ..... | 62  | ..... | *    | ..... | Forbidden | ..... | 05 | ..... | 25           |
| Sounding devices, explosive.  | 1.1F | UN0296 | ..... | II 1.2F  | ..... | None | ..... | 62  | ..... | 62   | ..... | Forbidden | ..... | 05 | ..... | 25           |
| Sounding devices, explosive.  | 1.1D | UN0374 | ..... | II 1.1F  | ..... | None | ..... | 62  | ..... | 62   | ..... | Forbidden | ..... | 04 | ..... | 25           |
| Sounding devices, explosive.  | 1.2D | UN0375 | ..... | II 1.1D  | ..... | None | ..... | 62  | ..... | 62   | ..... | Forbidden | ..... | 04 | ..... | 25           |
| Substances, explosive, n.o.s.   | 1.1L | UN0357 | ..... | II 1.2D  | ..... | None | ..... | 62  | ..... | 62   | ..... | Forbidden | ..... | 04 | ..... | 25           |
| Substances, explosive, n.o.s.   | 1.2L | UN0358 | ..... | II 1.1L  | ..... | None | ..... | 62  | ..... | None | ..... | Forbidden | ..... | 05 | ..... | 25, 14E, 15E |
| Substances, explosive, n.o.s.   | 1.3L | UN0359 | ..... | II 1.2L  | ..... | None | ..... | 62  | ..... | None | ..... | Forbidden | ..... | 05 | ..... | 25, 14E, 15E |
| Substances, explosive, n.o.s.   | 1.1A | UN0473 | ..... | II 1.3L  | ..... | None | ..... | 62  | ..... | None | ..... | Forbidden | ..... | 05 | ..... | 25, 14E, 15E |
| Substances, explosive, n.o.s.   | 1.1C | UN0474 | ..... | II 1.1A  | ..... | None | ..... | 62  | ..... | None | ..... | Forbidden | ..... | 05 | ..... | 25           |
| Substances, explosive, n.o.s.   | 1.1D | UN0475 | ..... | II 1.1C  | ..... | None | ..... | 62  | ..... | None | ..... | Forbidden | ..... | 04 | ..... | 25           |
| Substances, explosive, n.o.s.   | 1.1G | UN0476 | ..... | II 1.1D  | ..... | None | ..... | 62  | ..... | None | ..... | Forbidden | ..... | 04 | ..... | 25           |
| Substances, explosive, n.o.s.   | 1.3C | UN0477 | ..... | II 1.1G  | ..... | None | ..... | 62  | ..... | None | ..... | Forbidden | ..... | 03 | ..... | 25           |
| Substances, explosive, n.o.s.   | 1.3G | UN0478 | ..... | II 1.3C  | ..... | None | ..... | 62  | ..... | None | ..... | Forbidden | ..... | 04 | ..... | 25           |
| Substances, explosive, n.o.s.   | 1.4C | UN0479 | ..... | II 1.3G  | ..... | None | ..... | 62  | ..... | None | ..... | Forbidden | ..... | 03 | ..... | 25           |
| Substances, explosive, n.o.s.   | 1.4D | UN0480 | ..... | II 1.4C  | ..... | None | ..... | 62  | ..... | None | ..... | 75 kg     | ..... | 02 | ..... | 25           |
| Substances, explosive, n.o.s.   | 1.4S | UN0481 | ..... | II 1.4D  | ..... | None | ..... | 62  | ..... | None | ..... | 75 kg     | ..... | 02 | ..... | 25           |
| Substances, explosive, n.o.s.   | 1.4G | UN0485 | ..... | II 1.4S  | ..... | None | ..... | 62  | ..... | None | ..... | 75 kg     | ..... | 01 | ..... | 25           |
| Substances, explosive, n.o.s.   | 1.5D | UN0482 | ..... | II 1.4G  | ..... | None | ..... | 62  | ..... | None | ..... | 75 kg     | ..... | 02 | ..... | 25           |
| Sulfuric acid, fuming with 30 percent or more free sulfur trioxide.               | 8    | UN1831 | ..... | II 1.5D  | ..... | None | ..... | 62  | ..... | None | ..... | Forbidden | ..... | 03 | ..... | 25           |
| Tetrahydrofuran   | 1.1D | UN0207 | ..... | I 8, 6.1 | ..... | None | ..... | 227 | ..... | 244  | ..... | Forbidden | ..... | C  | ..... | .....        |

| (1)<br>Sym-bols | (2)<br>Hazardous materials descriptions and proper shipping names                      | (3)<br>Hazard class or division | (4)<br>Identification numbers | (5)<br>PG | (6)<br>Label codes | (7)<br>Special provisions (§ 172.102) | (8)<br>Packaging (§ 173.***) |                  |              | (9)<br>Quantity limitations (see §§ 173.27 and 175.75) |                             |                   | (10)<br>Vessel stowage |                |
|-----------------|--|---------------------------------|-------------------------------|-----------|--------------------|---------------------------------------|------------------------------|------------------|--------------|--|-----------------------------|-------------------|------------------------|----------------|
|                 |  |                                 |                               |           |                    |                                       | (8A)<br>Excep-tions          | (8B)<br>Non-bulk | (8C)<br>Bulk | (9A)<br>Passenger aircraft/rail                        | (9B)<br>Cargo aircraft only | (10A)<br>Location |                        | (10B)<br>Other |
|                 | Tetrazol-1-acetic acid ....  | 1.4C                            | UN0407                        | II        | 1.4C               | *                                     | None                         | 62               | None         | None   | Forbidden                   | 75 kg             | 02                     | 25             |
|                 | 1H-Tetrazole .....   | 1.1D                            | UN0504                        |           | 1.1D               |                                       | None                         | 62               | None         | None   | Forbidden                   | Forbidden         | 04                     | 25, 5E         |
|                 | Torpedoes, liquid fueled, with inert head.   | 1.3J                            | UN0450                        | II        | 1.3J               | *                                     |                              | 62               | None         | None   | Forbidden                   | Forbidden         | 05                     | 25, 23E        |
|                 | Torpedoes, liquid fueled, with or without bursting charge.                             | 1.1J                            | UN0449                        | II        | 1.1J               | *                                     |                              | 62               | None         | None   | Forbidden                   | Forbidden         | 05                     | 25, 23E        |
|                 | Torpedoes with bursting charge.  | 1.1E                            | UN0329                        | II        | 1.1E               | *                                     |                              | 62               | 62           | 62   | Forbidden                   | Forbidden         | 04                     | 25             |
|                 | Torpedoes with bursting charge.  | 1.1F                            | UN0330                        | II        | 1.1F               | *                                     |                              | 62               | None         | None   | Forbidden                   | Forbidden         | 05                     | 25             |
|                 | Torpedoes with bursting charge.  | 1.1D                            | UN0451                        | II        | 1.1D               | *                                     |                              | 62               | 62           | 62   | Forbidden                   | Forbidden         | 04                     | 25             |
| D               | Toy Caps .....   | 1.4S                            | NA0337                        | II        | 1.4S               | *                                     | None                         | 62               | None         | None   | 25 kg                       | 100 kg            | 01                     | 25             |
|                 | Tracers for ammunition ..  | 1.3G                            | UN0212                        | II        | 1.3G               | *                                     | None                         | 62               | None         | None   | Forbidden                   | Forbidden         | 03                     | 25             |
|                 | Tracers for ammunition ..  | 1.4G                            | UN0306                        | II        | 1.4G               | *                                     | None                         | 62               | None         | None   | Forbidden                   | 75 kg             | 02                     | 25             |
|                 | Trinitro-m-cresol .....  | 1.1D                            | UN0216                        | II        | 1.1D               | *                                     | None                         | 62               | None         | None   | Forbidden                   | Forbidden         | 04                     | 25, 5E         |
|                 | Trinitroaniline or Picramide.  | 1.1D                            | UN0153                        | II        | 1.1D               | *                                     | None                         | 62               | None         | None   | Forbidden                   | Forbidden         | 04                     | 25             |
|                 | Trinitroanisole .....  | 1.1D                            | UN0213                        | II        | 1.1D               | *                                     | None                         | 62               | None         | None   | Forbidden                   | Forbidden         | 04                     | 25             |
|                 | Trinitrobenzene, dry or wetted with less than 30 percent water, by mass.               | 1.1D                            | UN0214                        | II        | 1.1D               | *                                     | None                         | 62               | None         | None   | Forbidden                   | Forbidden         | 04                     | 25             |
|                 | Trinitrobenzenesulfonic acid.  | 1.1D                            | UN0386                        | II        | 1.1D               | *                                     | None                         | 62               | None         | None   | Forbidden                   | Forbidden         | 04                     | 25, 5E         |
|                 | Trinitrobenzoic acid, dry or wetted with less than 30 percent water, by mass.          | 1.1D                            | UN0215                        | II        | 1.1D               | *                                     | None                         | 62               | None         | None   | Forbidden                   | Forbidden         | 04                     | 25             |
|                 | Trinitrochlorobenzene or Picryl chloride.  | 1.1D                            | UN0155                        | II        | 1.1D               | *                                     | None                         | 62               | None         | None   | Forbidden                   | Forbidden         | 04                     | 25             |
|                 | Trinitrofluorenone .....   | 1.1D                            | UN0387                        | II        | 1.1D               | *                                     | None                         | 62               | None         | None   | Forbidden                   | Forbidden         | 04                     | 25             |
|                 | Trinitronaphthalene .....  | 1.1D                            | UN0217                        | II        | 1.1D               | *                                     | None                         | 62               | None         | None   | Forbidden                   | Forbidden         | 04                     | 25             |
|                 | Trinitrophenetole .....  | 1.1D                            | UN0218                        | II        | 1.1D               | *                                     | None                         | 62               | None         | None   | Forbidden                   | Forbidden         | 04                     | 25             |
|                 | Trinitrophenol or Picric acid, dry or wetted with less than 30 percent water, by mass. | 1.1D                            | UN0154                        | II        | 1.1D               | *                                     | None                         | 62               | None         | None   | Forbidden                   | Forbidden         | 04                     | 25, 5E         |
|                 | Trinitrophenylmethylnitramine or Tetryl.   | 1.1D                            | UN0208                        | II        | 1.1D               | *                                     | None                         | 62               | None         | None   | Forbidden                   | Forbidden         | 04                     | 25             |

|   |             |         |      |    |      |           |           |    |        |
|---|-------------|---------|------|----|------|-----------|-----------|----|--------|
| Tritiroresorcinol or Styphnic acid, dry or wetted with less than 20 percent water, or mixture of alcohol and water, by mass.  | 1.1D UN0219 | II 1.1D | None | 62 | None | Forbidden | Forbidden | 04 | 25, 5E |
| Tritiroresorcinol, wetted or Styphnic acid, wetted with not less than 20 percent water, or mixture of alcohol and water by mass.                                      | 1.1D UN0394 | II 1.1D | None | 62 | None | Forbidden | Forbidden | 04 | 25, 5E |
| Tritrotoluene and Trinitrobenzene mixtures or TNT and trinitrobenzene mixtures or TNT and hexanitrosilbene mixtures or Trinitrotoluene and hexanitrosilbene mixtures. | 1.1D UN0388 | II 1.1D | None | 62 | None | Forbidden | Forbidden | 04 | 25     |
| Tritrotoluene mixtures containing Trinitrobenzene and Hexanitrosilbene or TNT mixtures containing trinitrobenzene and hexanitrosilbene.                               | 1.1D UN0389 | II 1.1D | None | 62 | None | Forbidden | Forbidden | 04 | 25     |
| Tritrotoluene or TNT, dry or wetted with less than 30 percent water, by mass.   | 1.1D UN0209 | II 1.1D | None | 62 | None | Forbidden | Forbidden | 04 | 25     |
| Tritonal  | 1.1D UN0390 | II 1.1D | None | 62 | None | Forbidden | Forbidden | 04 | 25     |
| Urea nitrate, dry or wetted with less than 20 percent water, by mass.   | 1.1D UN0220 | II 1.1D | None | 62 | None | Forbidden | Forbidden | 04 | 25     |
| Warheads, rocket with burster or expelling charge.  | 1.4D UN0370 | II 1.4D | None | 62 | 62   | Forbidden | 75 kg     | 02 | 25     |
| Warheads, rocket with burster or expelling charge.  | 1.4F UN0371 | II 1.4F | None | 62 | None | Forbidden | Forbidden | 05 | 25     |
| Warheads, rocket with bursting charge.  | 1.1D UN0286 | II 1.1D | None | 62 | 62   | Forbidden | Forbidden | 04 | 25     |
| Warheads, rocket with bursting charge.  | 1.2D UN0287 | II 1.2D | None | 62 | 62   | Forbidden | Forbidden | 04 | 25     |
| Warheads, rocket with bursting charge.  | 1.1F UN0369 | II 1.1F | None | 62 | None | Forbidden | Forbidden | 05 | 25     |
| Warheads, torpedo with bursting charge.   | 1.1D UN0221 | II 1.1D | None | 62 | 62   | Forbidden | Forbidden | 04 | 25     |
| Zirconium picramate, dry or wetted with less than 20 percent water, by mass.  | 1.3C UN0236 | II 1.3C | None | 62 | None | Forbidden | Forbidden | 04 | 25, 5E |

■ 7. In § 172.102, in paragraph (c)(1), special provision 16 is revised as follows:

**§ 172.102 Special provisions**

\* \* \* \* \*

- (c) \* \* \*
- (1) \* \* \*

16 This description applies to smokeless powder and other solid propellants that are used as powder for small arms and have been classed as Division 1.3C, 1.4C and Division 4.1 in accordance with § 173.56 of this subchapter.

\* \* \* \* \*

■ 8. In § 172.202, paragraph (a)(6)(vii) is revised as follows;

**§ 172.202 Descripton of hazardous material on shipping papers.**

- (a) \* \* \*
- (6) \* \* \*

(vii) For hazardous materials in limited quantities, the total net quantity per package must be shown unless a gross mass is indicated in Column 4 of § 173.27 Table 3, in which case the total gross mass per package must be shown. Where different hazardous materials in limited quantities are packed together in the same outer packaging, when a gross mass is indicated Column 4 of § 173.27

Table 3, the net quantity of each hazardous material must be shown in addition to the gross mass of the completed package.

\* \* \* \* \*

■ 9. In § 172.301, paragraph (a)(1)(i) is revised to read as follows:

**§ 172.301 General marking requirements for non-bulk packagings.**

- (a) \* \* \*
- (1) \* \* \*

(i) *Transitional exception.* For domestic transportation, until January 1, 2017, the identification number markings are not subject to the minimum size requirements specified in this paragraph (a)(1).

\* \* \* \* \*

■ 10. In § 172.315, paragraph (d)(1) is revised to read as follows:

**§ 172.315 Limited quantities.**

\* \* \* \* \*

(d) *Transitional exceptions.* (1) *Alternative markings.* Except for transportation by aircraft and until December 31, 2015, a package containing a limited quantity may continue to be marked in accordance with the requirements of this section in effect on October 1, 2010 (i.e., square-

on-point with identification number only) as an alternative to the marking required by paragraph (a) of this section.

\* \* \* \* \*

■ 11. In § 172.316, paragraph (a) is revised to read as follows:

**§ 172.316 Packagings containing materials classed as ORM-D.**

(a) Each non-bulk packaging containing a material classed as ORM-D must be marked on at least one side or end with the ORM-D designation immediately following or below the proper shipping name of the material. The ORM designation must be placed within a rectangle that is approximately 6.3 mm (0.25 inches) larger on each side than the designation. Until December 31, 2020, the designation ORM-D is for an ORM-D material, as defined in § 173.144, that is packaged in accordance with §§ 173.63(b), 173.150 through 173.156, and 173.306.

\* \* \* \* \*

■ 12. In § 172.336, paragraph (c) is revised to read as follows:

**§ 172.336 Identification numbers.**

\* \* \* \* \*

(c) Identification Numbers are not required:

| Packaging:  | When:  | Then the alternative marking requirement is:  |
|---|--|---|
| On the ends of portable tanks, cargo tanks, or tank cars.   | They have more than one compartment and hazardous materials with different identification numbers are being transported therein. | The identification numbers on the sides of the tank are displayed in the same sequence as the compartments containing the materials they identify.  |
| On cargo tanks .....  | They contain only gasoline .....   | The tank is marked "Gasoline" on each side and rear in letters no less than 50 mm (2 inches) high, or is placarded in accordance with § 172.542(c).   |
| On cargo tanks .....  | They contain only fuel oil .....   | The cargo tank is marked "Fuel Oil" on each side and rear in letters no less than 50 mm (2 inches) high, or is placarded in accordance with § 172.544(c).   |
| On one end of nurse tanks if that end contains valves, fittings, regulators or gauges when those appurtenances prevent the markings and placard from being properly placed and visible. | They meet the provisions of § 173.315(m) of this subchapter.   | N/A.  |
| On cargo tanks, including compartmented cargo tanks, or tank cars.  | They contain more than one petroleum distillate fuel.  | The identification number for the liquid petroleum distillate fuel having the lowest flash point is displayed. If the cargo tank also contains gasoline and alcohol fuel blends consisting of more than 10% ethanol the identification number "3475" or "1987," as appropriate, must also be displayed. |

\* \* \* \* \*

**PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS**

■ 13. The authority citation for part 173 continues to read as follows:

**Authority:** 49 U.S.C. 5101–5128, 44701; 49 CFR 1.81 and 1.97.

■ 14. In § 173.6, in paragraph (a)(6), the first sentence is revised to read as follows:

**§ 173.6 Materials of trade exceptions.**

\* \* \* \* \*

- (a) \* \* \*

(6) A limited quantity package prepared in accordance with §§ 173.63(b), 173.150, 173.151(b) and (c), 173.152, 173.153, 173.154, 173.155,

173.161, 173.165, 173.167, 173.306(i), or 173.309(d) of this subchapter. \* \* \*

■ 15. In § 173.22, paragraphs (a)(4)(ii) and (iii) are revised to read as follows:

**§ 173.22 Shipper's responsibility.**

- (a) \* \* \*
- (4) \* \* \*

(ii) For other than a bulk package or a cylinder, a person must retain a copy of the manufacturer's notification,

including closure instructions (see § 178.2(c) of this subchapter). For a bulk package or a cylinder, a person must retain a copy of the manufacturer's notification, including closure instructions (see § 178.2(c) of this subchapter), unless permanently embossed or printed on the package. A copy of the manufacturer's notification, including closure instructions (see § 178.2(c) of this subchapter), unless permanently embossed or printed on the package when applicable, must be made available for inspection by a representative of the Department upon request for at least 90 days once the package is offered to the initial carrier for transportation in commerce. Subsequent offerors of a filled and otherwise properly prepared unaltered package are not required to maintain manufacturer notification (including closure instructions).

(iii) When applicable, a person must retain a copy of any supporting documentation used to determine an equivalent level of performance under the selective testing variation in § 178.601(g)(1) of this subchapter. Such documentation is to be retained by the

person certifying compliance with § 178.601(g)(1), as prescribed in § 178.601(l), and retained as prescribed in paragraph (a)(4)(ii) of this section.

■ 16. In § 173.24, paragraph (i) is revised to read as follows:

**§ 173.24 General requirements for packagings and packages.**

(i) *Air transportation.* Except as provided in subpart C of part 171 of this subchapter, packages prepared under § 173.167 of this part, or packages prepared under Packing Instruction Y963 of the ICAO Technical Instructions, packages offered or intended for transportation by aircraft must conform to the general requirements for transportation by aircraft in § 173.27.

■ 17. In § 173.25, paragraphs (a)(6) and (7) are revised to read as follows:

**§ 173.25 Authorized packagings and overpacks.**

(a) (6) For limited quantities and ORM material, the overpack is marked with a

limited quantity marking prescribed in § 172.315 of this subchapter or, the ORM marking prescribed in § 172.316 of this subchapter, unless a limited quantity or ORM marking representative of the hazardous material in the overpack is visible.

(7) For excepted quantities, the overpack is marked with the required marking of § 173.4a of this part unless visible.

■ 18. In § 173.27, paragraph (f)(2)(i)(F) is revised and in paragraph (f)(3), the Class 9 entries in Table 3 are revised to read as follows:

**§ 173.27 General requirements for transportation by aircraft.**

(f) (2) (i) (F) Class 8 (corrosive) materials UN2794, UN2795, UN2803, UN2809, UN3028, UN3506; and

(3) (3) \* \* \*

TABLE 3—MAXIMUM NET QUANTITY OF EACH INNER AND OUTER PACKAGING FOR MATERIALS AUTHORIZED FOR TRANSPORTATION AS LIMITED QUANTITY BY AIRCRAFT

| Hazard class or division   | Maximum authorized net quantity of each inner packaging |  | Maximum authorized net quantity of each outer package               | Notes   |
|----------------------------|---|--|---|---|
|                            | Glass, earthenware or fiber inner packagings            | Metal or plastic inner packagings                      |   |   |
| Class 9 (liquid material). | 30 mL (UN3316); 5.0L (UN1941, UN1990, UN3082, UN3334).  | 30 mL (UN3316); 5.0L (UN1941, UN1990, UN3082, UN3334). | 1 kg (UN3316); 30 kg gross (all other authorized Class 9 material). | <i>Authorized materials:</i> UN1941, UN1990, UN2071, UN3077, UN3082, UN3334, and UN3335. Additionally, Consumer commodity (ID8000) in accordance with § 173.167 of this part and Chemical kit or First aid kit (UN3316) in accordance with § 173.161 of this part are authorized. |
| Class 9 (solid material).  | 100 g (UN3316); 5.0 kg (UN2071, UN3077, UN3335).        | 100 g (UN3316); 5.0 kg (UN2071, UN3077, UN3335).       | 1 kg (UN3316); 30 kg gross (all other authorized Class 9 material). |   |

■ 19. In § 173.62, in paragraph (c), in the Table of Packing Methods, Packing

Instructions 112(b), 116, and 130 are revised to read as follows:

**§ 173.62 Specific packaging requirements for explosives.**

(c) \* \* \*

TABLE OF PACKING METHODS

| Packing instruction | Inner packagings    | Intermediate packagings | Outer packagings |
|---------------------|---------------------|-------------------------|------------------|
| 112(b) .....        | Bags .....          | Bags .....              | Bags.            |
| 130 .....           | Not necessary ..... | Not necessary .....     | Boxes.           |

Particular Packaging Requirements:

TABLE OF PACKING METHODS—Continued

| Packing instruction  | Inner packagings | Intermediate packagings | Outer packagings  |
|--|------------------|-------------------------|---|
| <p>1. The following applies to UN 0006, 0009, 0010, 0015, 0016, 0018, 0019, 0034, 0035, 0038, 0039, 0048, 0056, 0137, 0138, 0168, 0169, 0171, 0181, 0182, 0183, 0186, 0221, 0238, 0243, 0244, 0245, 0246, 0254, 0280, 0281, 0286, 0287, 0297, 0299, 0300, 0301, 0303, 0321, 0328, 0329, 0344, 0345, 0346, 0347, 0362, 0363, 0370, 0412, 0424, 0425, 0434, 0435, 0436, 0437, 0438, 0451, 0459 and 0488. Large and robust explosives articles, normally intended for military use, without their means of initiation or with their means of initiation containing at least two effective protective features, may be carried unpackaged. When such articles have propelling charges or are self-propelled, their ignition systems must be protected against stimuli encountered during normal conditions of transport. A negative result in Test Series 4 on an unpackaged article indicates that the article can be considered for transport unpackaged. Such unpackaged articles may be fixed to cradles or contained in crates or other suitable handling devices.</p> <p>2. Subject to approval by the Associate Administrator, large explosive articles, as part of their operational safety and suitability tests, subjected to testing that meets the intentions of Test Series 4 of the UN Manual of Tests and Criteria with successful test results, may be offered for transportation in accordance with the requirements of this subchapter</p> | .....            | .....                   | <p>Steel (4A). Aluminum (4B). Other metal (4N). Wood natural, ordinary (4C1). Wood natural, sift-proof walls (4C2). Plywood (4D). Reconstituted wood (4F). Fiberboard (4G). Plastics, expanded (4H1). Plastics, solid (4H2). Drums. Steel (1A1 or 1A2). Aluminum (1B1 or 1B2). Other metal (1N1 or 1N2). Plywood (1D). Fiber (1G). Plastics (1H1 or 1H2). Large Packagings. Steel (50A). Aluminum (50B). Metal other than steel or aluminum (50N). Rigid plastics (50H). Natural wood (50C). Plywood (50D). Reconstituted wood (50F). Rigid fiberboard (50G).</p> |
| *  | *                | *                       | *   |

■ 20. In § 173.63 paragraph (b) is revised to read as follows:

**§ 173.63 Packaging exceptions.**

\* \* \* \* \*

(b) *Limited quantities of Cartridges, small arms, Cartridges, power device, Cartridges for tools, blank, and Cases, cartridge, empty with primer.* (1)(i) Cartridges, small arms, Cartridges, power device (*used to project fastening devices*), Cartridges for tools, blank, and Cases, cartridge, empty with primer that have been classed as Division 1.4S explosive may be offered for transportation and transported as limited quantities when packaged in accordance with paragraph (b)(2) of this section. Packages containing such articles may be marked with either the marking prescribed in § 172.315(a) or (b) of this subchapter and offered for transportation and transported by any mode. For transportation by aircraft, the package must conform to the applicable requirements of § 173.27 of this part. In addition, packages containing such articles offered for transportation by aircraft must be marked with the proper shipping name as prescribed in the

§ 172.101 Hazardous Materials Table of this subchapter. Packages containing such articles are not subject to the shipping paper requirements of subpart C of part 172 of this subchapter unless the material meets the definition of a hazardous substance, hazardous waste, marine pollutant, or is offered for transportation and transported by aircraft or vessel. Additionally, packages containing such articles are excepted from the requirements of subparts E (Labeling) and F (Placarding) of part 172 of this subchapter.

(ii) Until December 31, 2012, a package containing such articles may be marked with the proper shipping name “Cartridges, small arms” or “Cartridges, power device (*used to project fastening devices*)” and reclassified as “ORM–D–AIR” material if it contains properly packaged articles as authorized by this subchapter on October 1, 2010. Additionally, for transportation by aircraft, Cartridge, power devices must be successfully tested under the UN Test Series 6(d) criteria for reclassification as ORM–D–AIR material effective July 1, 2011. Until December 31, 2020, a package containing such

articles may be marked with the proper shipping name “Cartridges, small arms” or “Cartridges, power device (*used to project fastening devices*),” “Cartridges for tools, blank,” and “Cases, cartridge empty with primer” and reclassified as “ORM–D” material if it contains properly packaged articles as authorized by this subchapter on October 1, 2010.

(iii) Cartridges, small arms, Cartridges, power device (*used to project fastening devices*), Cartridges for tools, blank, and Cases, cartridge empty with primer that may be shipped as a limited quantity or ORM–D material are as follows:

- (A) Ammunition for rifle, pistol or shotgun;
- (B) Ammunition with inert projectiles or blank ammunition;
- (C) Ammunition having no tear gas, incendiary, or detonating explosive projectiles;
- (D) Ammunition not exceeding 12.7 mm (50 caliber or 0.5 inch) for rifle or pistol, cartridges or 8 gauge for shotshells;
- (E) Cartridges for tools, blank; and
- (F) Cases, cartridge, empty with primer.

(G) Cartridges, power device (*used to project fastening devices*).

(2) Packaging for Cartridges, small arms, Cartridges for tools, blank, Cases, cartridge empty with primer, and eligible Cartridges, power device as limited quantity or ORM-D material must be as follows:

(i) Ammunition must be packed in inside boxes, or in partitions that fit snugly in the outside packaging, or in metal clips;

(ii) Primers must be protected from accidental initiation;

(iii) Inside boxes, partitions or metal clips must be packed in securely-closed strong outside packagings;

(iv) Maximum gross weight is limited to 30 kg (66 pounds) per package; and

(v) Cartridges for tools, blank, Cartridges, power devices which are used to project fastening devices, Cases, cartridge, empty with primer, and 22 caliber rim-fire cartridges may be packaged loose in strong outside packagings.

\* \* \* \* \*

■ 21. Section 173.144 is revised to read as follows:

**§ 173.144 Other Regulated Material (ORM)—Definitions.**

Until December 31, 2020 and for the purposes of this subchapter, “ORM-D material” means a material such as a Consumer commodity, Cartridges, small arms, Cartridges, power devices (*used to project fastening devices*), Cartridges for tools, blank, and Cases, cartridge, empty with primer, which, although otherwise subject to the regulations of this subchapter, presents a limited hazard during transportation due to its form, quantity and packaging. The article or substance must be a material for which exceptions are provided in Column (8A) of the § 172.101 Hazardous Materials Table.

■ 22. In § 173.150, paragraphs (d)(2)(ii) and (iii) are revised to read as follows:

**§ 173.150 Exceptions for Class 3 (flammable and combustible liquids).**

\* \* \* \* \*

(d) \* \* \*

(2) \* \* \*

(ii) For transportation aboard a passenger-carrying aircraft, contains more than 24% but not more than 70% alcohol by volume when in unopened retail packagings not exceeding 5 liters (1.3 gallons) carried in carry-on or checked baggage, with a total net quantity per person of 5 liters (1.3 gallons) (See § 175.10(a)(4) of this subchapter); or

(iii) When carried as cargo, contains more than 24% but not more than 70% alcohol by volume in an inner

packaging not exceeding 5 L (1.3 gallons).

\* \* \* \* \*

■ 23. In Section 173.156:

■ a. Paragraph (b)(1) introductory text is revised.

■ b. Paragraph (b)(2)(vi) is removed.

The revision reads as follows:

**§ 173.156 Exceptions for limited quantity and ORM.**

\* \* \* \* \*

(b) \* \* \*

(1) Strong outer packagings as specified in this part, marking requirements specified in subpart D of part 172 of this subchapter, and the 30 kg (66 pounds) gross weight limitation when—

\* \* \* \* \*

■ 24. Section 173.165 is revised to read as follows:

**§ 173.165 Polyester resin kits.**

(a) Polyester resin kits consisting of a base material component (Class 3, Packing Group II or III) and an activator component (Type D, E, or F organic peroxide that does not require temperature control)—

(1) The organic peroxide component must be packed in inner packagings not over 125 mL (4.22 fluid ounces) net capacity each for liquids or 500 g (17.64 ounces) net capacity each for solids.

(2)(i) Except for transportation by aircraft, the flammable liquid component must be packaged in suitable inner packagings.

(ii) For transportation by aircraft, a Packing Group II base material is limited to a quantity of 5 L (1.3 gallons) in metal or plastic inner packagings and 1 L (0.3 gallons) in glass inner packagings. A Packing Group III base material is limited to a quantity of 10 L (2.6 gallons) in metal or plastic inner packagings and 2.5 L (0.66 gallons) in glass inner packagings.

(3) If the flammable liquid component and the organic peroxide component will not interact dangerously in the event of leakage, they may be packed in the same outer packaging.

(4) The Packing Group assigned will be II or III, according to the criteria for Class 3, applied to the base material. Additionally, polyester resin kits must be packaged in specification combination packagings, based on the performance level required of the base material (II or III) contained within the kit, as prescribed in §§ 173.202 or 173.203 of this subchapter, as appropriate.

(5) For transportation by aircraft, the following additional requirements apply:

(i) Closures on inner packagings containing liquids must be secured by secondary means;

(ii) Inner packagings containing liquids must be capable of meeting the pressure differential requirements prescribed in § 173.27(c); and

(iii) The total quantity of activator and base material may not exceed 5 kg (11 lbs) per package for a Packing Group II base material. The total quantity of activator and base material may not exceed 10 kg (22 lbs) per package for a Packing Group III base material. The total quantity of polyester resin kits per package is calculated on a one-to-one basis (i.e., 1 L equals 1 kg).

(b) Polyester resin kits are eligible for the Small Quantity exceptions in § 173.4 and the Excepted Quantity exceptions in § 173.4a, as applicable.

(c) *Limited quantities.* Limited quantity packages of polyester resin kits are excepted from labeling requirements, unless the material is offered for transportation or transported by aircraft, and are excepted from the specification packaging requirements of this subchapter when packaged in combination packagings according to this paragraph. For transportation by aircraft, only hazardous material authorized aboard passenger-carrying aircraft may be transported as a limited quantity. A limited quantity package that conforms to the provisions of this section is not subject to the shipping paper requirements of subpart C of part 172 of this subchapter, unless the material meets the definition of a hazardous substance, hazardous waste, marine pollutant, or is offered for transportation and transported by aircraft or vessel, and is eligible for the exceptions provided in § 173.156 of this part. In addition, shipments of limited quantities are not subject to subpart F (Placarding) of part 172 of this subchapter. Each package must conform to the general packaging requirements of subpart B of this part and may not exceed 30 kg (66 pounds) gross weight.

(1) For other than transportation by aircraft, the organic peroxide component must be packed in inner packagings not over 125 mL (4.22 fluid ounces) net capacity each for liquids or 500 g (17.64 ounces) net capacity each for solids. For transportation by aircraft, the organic peroxide component must be packed in inner packagings not over 30 mL (4.22 fluid ounces) net capacity each for liquids or 100 g (17.64 ounces) net capacity each for solids.

(2) Except for transportation by aircraft, the flammable liquid component must be packed in inner packagings not over 5 L (1.3 gallons) net capacity each for a Packing Group II and

Packing Group III liquid. For transportation by aircraft, the flammable liquid component must be packed in inner packagings not over 1 L (0.26 gallons) net capacity each for a Packing Group II material. The flammable liquid component must be packed in metal or plastic inner packagings not over 5.0 L (1.3 gallons) net capacity each or glass inner packagings not over 2.5 L (0.66 gallons) net capacity each for a Packing Group III material.

(3) If the flammable liquid component and the organic peroxide component will not interact dangerously in the event of leakage, they may be packed in the same outer packaging.

(4) For transportation by aircraft, the following additional requirements apply:

(i) Closures on inner packagings containing liquids must be secured by secondary means as prescribed in § 173.27(d);

(ii) Inner packagings containing liquids must be capable of meeting the pressure differential requirements prescribed in § 173.27(c);

(iii) The total quantity of activator and base material may not exceed 1 kg (2.2 lbs) per package for a Packing Group II base material. The total quantity of activator and base material may not exceed 5 kg (11 lbs) per package for a Packing Group III base material. The total quantity of polyester resin kits per package is calculated on a one-to-one basis (i.e., 1 L equals 1 kg);

(iv) *Drop test capability.* Fragile inner packagings must be packaged to prevent failure under conditions normally incident to transport. Packages of consumer commodities must be capable of withstanding a 1.2 m drop on solid concrete in the position most likely to cause damage; and

(v) *Stack test capability.* Packages of consumer commodities must be capable of withstanding, without failure or leakage of any inner packaging and without any significant reduction in effectiveness, a force applied to the top surface for a duration of 24 hours equivalent to the total weight of identical packages if stacked to a height of 3.0 m (including the test sample).

(d) *Consumer commodities.* Until December 31, 2020, a limited quantity package of polyester resin kits that are also consumer commodities as defined in § 171.8 of this subchapter may be renamed "Consumer commodity" and reclassified as ORM-D or, until December 31, 2012, as ORM-D-AIR material and offered for transportation and transported in accordance with the

applicable provisions of this subchapter in effect on October 1, 2010.

■ 25. In § 173.167, paragraph (a) introductory text is revised to read as follows:

**§ 173.167 Consumer commodities.**

(a) Effective January 1, 2013, a "consumer commodity" (see § 171.8 of this subchapter) when offered for transportation by aircraft may only include articles or substances of Class 2 (non-toxic aerosols only), Class 3 (Packing Group II and III only), Division 6.1 (Packing Group III only), UN3077, UN3082, UN3175, UN3334, and UN3335, provided such materials do not have a subsidiary risk and are authorized aboard a passenger-carrying aircraft. Consumer commodities are excepted from the specification outer packaging requirements of this subchapter. Packages prepared under the requirements of this section are excepted from labeling and shipping papers when transported by highway or rail. Except as indicated in § 173.24(i), each completed package must conform to §§ 173.24 and 173.24a of this subchapter. Additionally, except for the pressure differential requirements in § 173.27(c), the requirements of § 173.27 do not apply to packages prepared in accordance with this section. Packages prepared under the requirements of this section may be offered for transportation and transported by all modes. As applicable, the following apply:

\* \* \* \* \*

■ 26. In § 173.171, the introductory text and paragraphs (a), (c), and (d) are revised to read as follows:

**§ 173.171 Smokeless powder for small arms.**

Smokeless powder for small arms which has been classed in Division 1.3 or Division 1.4 may be reclassified in Division 4.1, for domestic transportation by motor vehicle, rail car, vessel, or cargo-only aircraft, subject to the following conditions:

(a) Powders that have been approved as Division 1.3C or Division 1.4C may be reclassified to Division 4.1 in accordance with §§ 173.56 and 173.58 of this part.

\* \* \* \* \*

(c) Only combination packagings with inner packagings not exceeding 3.6 kg (8 pounds) net mass are authorized. Inner packagings must be arranged and protected so as to prevent simultaneous ignition of the contents. The complete package must be of the same type which has been examined as required in § 173.56 of this part.

(d) Inside packages that have been examined and approved by the Associate Administrator may be packaged in UN 4G fiberboard boxes meeting the Packing Group I performance level, provided all inside containers are packed to prevent shifting and the net weight of smokeless powder in any one box does not exceed 7.3 kg (16 pounds).

■ 27. In § 173.176, paragraphs (a)(2)(i) and (ii) are revised to read as follows:

**§ 173.176 Capacitors.**

(a) \* \* \*

(2) \* \* \*

(i) When a capacitor's energy storage capacity is less than or equal to 10 Wh or when the energy storage capacity of each capacitor in a module is less than or equal to 10 Wh, the capacitor or module must be protected against short circuit or be fitted with a metal strap connecting the terminals; or

(ii) When the energy storage capacity of a capacitor or a capacitor in a module is more than 10 Wh, the capacitor or module must be fitted with a metal strap connecting the terminals;

\* \* \* \* \*

■ 28. In § 173.185, paragraph (a)(1) is revised to read as follows:

**§ 173.185 Lithium cells and batteries.**

(a) \* \* \*

(1) Cells and batteries manufactured according to a type meeting the requirements of sub-section 38.3 of the Manual of Tests and Criteria, Revision 3, Amendment 1 or any subsequent revision and amendment applicable at the date of the type testing may continue to be transported, unless otherwise provided in this subchapter. Cell and battery types only meeting the requirements of the Manual of Tests and Criteria, Revision 3, are no longer valid. However, cells and batteries manufactured in conformity with such types before July 2003 may continue to be transported if all other applicable requirements are fulfilled.

\* \* \* \* \*

■ 29. In § 173.225, the paragraph (c) "Organic Peroxide Table" and the paragraph (e) "Organic Peroxide IBC Table" are amended by removing the entries under "[REMOVE]" and adding entries under "[ADD]" in alphabetical order to read as follows:

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

\* \* \* \* \*

(c) \* \* \*

ORGANIC PEROXIDE TABLE

| Technical name<br>(1)          | ID No.<br>(2) | Concentration<br>(mass %)<br>(3) | Diluent (mass %) |           |           | Water<br>(mass %)<br>(5) | Packing<br>method<br>(6) | Temperature ( °C) |                   | Notes<br>(8) |
|--------------------------------|---------------|----------------------------------|------------------|-----------|-----------|--------------------------|--------------------------|-------------------|-------------------|--------------|
|                                |               |                                  | A<br>(4a)        | B<br>(4b) | I<br>(4c) |                          |                          | Control<br>(7a)   | Emergency<br>(7b) |              |
| <b>[REMOVE]</b>                |               |                                  |                  |           |           |                          |                          |                   |                   |              |
| Diisopropyl peroxydicarbonate. | UN3115 ...    | ≤32                              | ≥68              |           |           |                          | OP7                      | -15               | -5                |              |
| Diisopropyl peroxydicarbonate. | UN3115 ...    | ≤52                              |                  | ≥48       |           |                          | OP7                      | -20               | -10               |              |
| Diisopropyl peroxydicarbonate. | UN3115 ...    | ≤28                              | ≥72              |           |           |                          | OP7                      | -15               | -5                |              |
| <b>[ADD]</b>                   |               |                                  |                  |           |           |                          |                          |                   |                   |              |
| Diisopropyl peroxydicarbonate. | UN3112 ...    | >52-100                          |                  |           |           |                          | OP2                      | -15               | -5                |              |
| Diisopropyl peroxydicarbonate. | UN3115 ...    | ≤52                              |                  | ≥48       |           |                          | OP7                      | -20               | -10               |              |
| Diisopropyl peroxydicarbonate. | UN3115 ...    | ≤32                              | ≥68              |           |           |                          | OP7                      | -15               | -5                |              |

\* \* \* \* \* (e) \* \* \*

ORGANIC PEROXIDE IBC TABLE

| UN No.          | Organic peroxide   | Type of IBC | Maximum quantity (liters) | Control temperature | Emergency temperature |
|-----------------|--|-------------|---------------------------|---------------------|-----------------------|
| <b>[REMOVE]</b> |  |             |                           |                     |                       |
| 3109            | ORGANIC PEROXIDE, TYPE F, LIQUID.  |             |                           |                     |                       |
|                 | tert-Butyl hydroperoxide, not more than 72% with water                           | 31A         | 1250                      |                     |                       |
|                 | tert-Butyl peroxyacetate, not more than 32% in diluent type A                    | 31A         | 1250                      |                     |                       |
|                 |  | 31HA1       | 1000                      |                     |                       |
|                 | tert-Butyl peroxybenzoate, not more than 32% in diluent type A.                  | 31A         | 1250                      |                     |                       |
|                 | tert-Butyl peroxy-3,5,5-trimethylhexanoate, not more than 37% in diluent type A. | 31A         | 1250                      |                     |                       |
|                 |  | 31HA1       | 1000                      |                     |                       |
|                 | Cumyl hydroperoxide, not more than 90% in diluent type A                         | 31HA1       | 1250                      |                     |                       |
|                 | Dibenzoyl peroxide, not more than 42% as a stable dispersion                     | 31H1        | 1000                      |                     |                       |
|                 | Di-tert-butyl peroxide, not more than 52% in diluent type B                      | 31A         | 1250                      |                     |                       |
|                 |  | 31HA1       | 1000                      |                     |                       |
|                 | 1,1-Di-(tert-Butylperoxy) cyclohexane, not more than 37% in diluent type A.      | 31A         | 1250                      |                     |                       |
|                 | 1,1-Di-(tert-butylperoxy) cyclohexane, not more than 42% in diluent type A.      | 31H1        | 1000                      |                     |                       |
|                 | Dicumyl peroxide, less than or equal to 100%                                     | 31A         | 1250                      |                     |                       |
|                 |  | 31HA1       | 1000                      |                     |                       |
|                 | Diisobutyl peroxide, not more than 28% as a stable dispersion in water.          | 31HA1       | 1000                      | -20 °C              | -10 °C                |
|                 |  | 31A         | 1250                      | -20 °C              | -10 °C                |
|                 | Diisobutyl peroxide, not more than 42% as a stable dispersion in water.          | 31HA1       | 1000                      | -25 °C              | -15 °C                |
|                 |  | 31A         | 1250                      | -25 °C              | -15 °C                |
|                 | Dilauroyl peroxide, not more than 42%, stable dispersion, in water.              | 31HA1       | 1000                      |                     |                       |
|                 | Isopropyl cumyl hydroperoxide, not more than 72% in diluent type A.              | 31HA1       | 1250                      |                     |                       |
|                 | p-Menthyl hydroperoxide, not more than 72% in diluent type A                     | 31HA1       | 1250                      |                     |                       |
|                 | Peroxyacetic acid, stabilized, not more than 17%                                 | 31A         | 1500                      |                     |                       |
|                 |  | 31H1        | 1500                      |                     |                       |
|                 |  | 31H2        | 1500                      |                     |                       |
|                 |  | 31HA1       | 1500                      |                     |                       |
|                 | Peroxyacetic acid, with not more than 26% hydrogen peroxide                      | 31A         | 1500                      |                     |                       |

ORGANIC PEROXIDE IBC TABLE—Continued

| UN No. | Organic peroxide   | Type of IBC | Maximum quantity (liters) | Control temperature | Emergency temperature |
|--------|--|-------------|---------------------------|---------------------|-----------------------|
| 3110   | ORGANIC PEROXIDE TYPE F, SOLID.<br>Dicumyl peroxide, less than or equal to 100%                  | 31HA1       | 1500                      |                     |                       |
|        |  | 31A         | 1500                      |                     |                       |
|        |  | 31HA1       | 1500                      |                     |                       |
| 3119   | ORGANIC PEROXIDE, TYPE F, LIQUID, TEMPERATURE CONTROLLED.  |             |                           |                     |                       |
|        | tert-Amyl peroxyvalate, not more than 32% in diluent type A                                      | 31A         | 1250                      | +10 °C              | +15 °C                |
|        | tert-Butyl peroxy-2-ethylhexanoate, not more than 32% in diluent type B.                         | 31HA1       | 1000                      | +30 °C              | +35 °C                |
|        | tert-Butyl peroxyneodecanoate, not more than 32% in diluent type A.                              | 31A         | 1250                      | +30 °C              | +35 °C                |
|        | tert-Butyl peroxyneodecanoate, not more than 32% in diluent type A.                              | 31A         | 1250                      | 0 °C                | +10 °C                |
|        | tert-Butyl peroxyneodecanoate, not more than 52%, stable dispersion, in water.                   | 31A         | 1250                      | -5 °C               | +5 °C                 |
|        | tert-Butyl peroxyvalate, not more than 27% in diluent type B                                     | 31HA1       | 1000                      | +10 °C              | +15 °C                |
|        | Dicyclohexylperoxydicarbonate, not more than 42% as a stable dispersion, in water.               | 31A         | 1250                      | +10 °C              | +15 °C                |
|        | Di-(4-tert-butylcyclohexyl) peroxydicarbonate, not more than 42%, stable dispersion, in water.   | 31A         | 1250                      | +10 °C              | +15 °C                |
|        | Dicetyl peroxydicarbonate, not more than 42%, stable dispersion, in water.                       | 31HA1       | 1000                      | +30 °C              | +35 °C                |
|        | Di-(2-ethylhexyl) peroxydicarbonate, not more than 62%, stable dispersion, in water.             | 31A         | 1250                      | -20 °C              | -10 °C                |
|        | Dimyristyl peroxydicarbonate, not more than 42%, stable dispersion, in water.                    | 31HA1       | 1000                      | +15 °C              | +20 °C                |
|        | Di-(3,5,5-trimethylhexanoyl) peroxide, not more than 52% in diluent type A.                      | 31HA1       | 1000                      | +10 °C              | +15 °C                |
|        | Di-(2-neodecanoylperoxyisopropyl) benzene, not more than 42%, stable dispersion, in water.       | 31A         | 1250                      | -15 °C              | -5 °C                 |
|        | 3-Hydroxy-1,1-dimethylbutyl peroxy-neodecanoate, not more than 52%, stable dispersion, in water. | 31A         | 1250                      | -15 °C              | -5 °C                 |
|        | Di-(3,5,5-trimethylhexanoyl) peroxide, not more than 52%, stable dispersion, in water.           | 31A         | 1250                      | +10 °C              | +15 °C                |
|        | 1,1,3,3-Tetramethylbutyl peroxyneodecanoate, not more than 52%, stable dispersion, in water.     | 31A         | 1250                      | -5 °C               | +5 °C                 |
|        |  | 31HA1       | 1000                      | -5 °C               | +5 °C                 |
| *      | *  | *           | *                         | *                   | *                     |
| 3109   | [ADD]<br>ORGANIC PEROXIDE, TYPE F, LIQUID.   |             |                           |                     |                       |
|        | tert-Butyl hydroperoxide, not more than 72% with water   | 31A         | 1250                      |                     |                       |
|        | tert-Butyl peroxyacetate, not more than 32% in diluent type A                                    | 31A         | 1250                      |                     |                       |
|        |  | 31HA1       | 1000                      |                     |                       |
|        | tert-Butyl peroxybenzoate, not more than 32% in diluent type A.                                  | 31A         | 1250                      |                     |                       |
|        | tert-Butyl peroxy-3,5,5-trimethylhexanoate, not more than 37% in diluent type A.                 | 31A         | 1250                      |                     |                       |
|        |  | 31HA1       | 1000                      |                     |                       |
|        | Cumyl hydroperoxide, not more than 90% in diluent type A   | 31HA1       | 1250                      |                     |                       |
|        | Dibenzoyl peroxide, not more than 42% as a stable dispersion                                     | 31H1        | 1000                      |                     |                       |
|        | Di-tert-butyl peroxide, not more than 52% in diluent type B                                      | 31A         | 1250                      |                     |                       |
|        |  | 31HA1       | 1000                      |                     |                       |
|        | 1,1-Di-(tert-Butylperoxy) cyclohexane, not more than 37% in diluent type A.                      | 31A         | 1250                      |                     |                       |
|        | 1,1-Di-(tert-butylperoxy) cyclohexane, not more than 42% in diluent type A.                      | 31H1        | 1000                      |                     |                       |
|        | Dicumyl peroxide, less than or equal to 100%   | 31A         | 1250                      |                     |                       |
|        |  | 31HA1       | 1000                      |                     |                       |
|        | Dilauroyl peroxide, not more than 42%, stable dispersion, in water.                              | 31HA1       | 1000                      |                     |                       |
|        | Isopropyl cumyl hydroperoxide, not more than 72% in diluent type A.                              | 31HA1       | 1250                      |                     |                       |
|        | p-Menthyl hydroperoxide, not more than 72% in diluent type A                                     | 31HA1       | 1250                      |                     |                       |
|        | Peroxyacetic acid, stabilized, not more than 17%   | 31A         | 1500                      |                     |                       |
|        |  | 31H1        | 1500                      |                     |                       |
|        | 31H2   | 1500        |                           |                     |                       |

ORGANIC PEROXIDE IBC TABLE—Continued

| UN No. | Organic peroxide  | Type of IBC | Maximum quantity (liters) | Control temperature | Emergency temperature |
|--------|---|-------------|---------------------------|---------------------|-----------------------|
| 3110   | ORGANIC PEROXIDE TYPE F, SOLID.<br>Dicumyl peroxide, less than or equal to 100%   | 31HA1       | 1500                      |                     |                       |
|        |   | 31A         | 1500                      |                     |                       |
|        |   | 31HA1       | 1500                      |                     |                       |
|        |   | 31A         | 1500                      |                     |                       |
| 3119   | ORGANIC PEROXIDE, TYPE F, LIQUID, TEMPERATURE CONTROLLED.<br>tert-Butyl peroxy-2-ethylhexanoate, not more than 32% in diluent type B.   | 31A         | 2000                      |                     |                       |
|        |   | 31H1        |                           |                     |                       |
| 3119   | ORGANIC PEROXIDE, TYPE F, LIQUID, TEMPERATURE CONTROLLED.<br>tert-Amyl peroxyvalate, not more than 32% in diluent type A<br>tert-Butyl peroxyneodecanoate, not more than 32% in diluent type A.<br>tert-Butyl peroxyneodecanoate, not more than 52%, stable dispersion, in water.<br>tert-Butyl peroxyvalate, not more than 27% in diluent type B<br>Di-(4-tert-butylcyclohexyl) peroxydicarbonate, not more than 42%, stable dispersion, in water.<br>Dicetyl peroxydicarbonate, not more than 42%, stable dispersion, in water.<br>Dicyclohexylperoxydicarbonate, not more than 42% as a stable dispersion, in water.<br>Di-(2-ethylhexyl) peroxydicarbonate, not more than 62%, stable dispersion, in water.<br>Diisobutyl peroxide, not more than 28% as a stable dispersion in water.<br>Diisobutyl peroxide, not more than 42% as a stable dispersion in water.<br>Dimyristyl peroxydicarbonate, not more than 42%, stable dispersion, in water.<br>Di-(2-neodecanoylperoxyisopropyl) benzene, not more than 42%, stable dispersion, in water.<br>Di-(3,5,5-trimethylhexanoyl) peroxide, not more than 52% in diluent type A.<br>Di-(3,5,5-trimethylhexanoyl) peroxide, not more than 52%, stable dispersion, in water.<br>3-Hydroxy-1,1-dimethylbutyl peroxy-neodecanoate, not more than 52%, stable dispersion, in water.<br>1,1,3,3-Tetramethylbutyl peroxyneodecanoate, not more than 52%, stable dispersion, in water. | 31A         | 1250                      | +10 °C              | +15 °C                |
|        |   | 31HA1       | 1000                      | +30 °C              | +35 °C                |
|        |   | 31A         | 1250                      | +30 °C              | +35 °C                |
|        |   | 31A         | 1250                      | 0 °C                | +10 °C                |
|        |   | 31A         | 1250                      | -5 °C               | +5 °C                 |
|        |   | 31HA1       | 1000                      | +10 °C              | +15 °C                |
|        |   | 31A         | 1250                      | +10 °C              | +15 °C                |
|        |   | 31HA1       | 1000                      | +30 °C              | +35 °C                |
|        |   | 31HA1       | 1000                      | +30 °C              | +35 °C                |
|        |   | 31A         | 1250                      | +10 °C              | +15 °C                |
|        |   | 31A         | 1250                      | -20 °C              | -10 °C                |
|        |   | 31HA1       | 1000                      | -20 °C              | -10 °C                |
|        |   | 31A         | 1250                      | -20 °C              | -10 °C                |
|        |   | 31HA1       | 1000                      | -25 °C              | -15 °C                |
|        |   | 31A         | 1250                      | -25 °C              | -15 °C                |
|        |   | 31HA1       | 1000                      | +15 °C              | +20 °C                |
|        |   | 31A         | 1250                      | -15 °C              | -5 °C                 |
|        |   | 31HA1       | 1000                      | +10 °C              | +15 °C                |
|        |   | 31A         | 1250                      | +10 °C              | +15 °C                |
|        |   | 31A         | 1250                      | +10 °C              | +15 °C                |
| 31A    | 1250  | -15 °C      | -5 °C                     |                     |                       |
| 31A    | 1250  | -5 °C       | +5 °C                     |                     |                       |
|        |   | 31HA1       | 1000                      | -5 °C               | +5 °C                 |

§ 173.230 [Amended]

■ 30. In § 173.230, paragraph (f)(3), remove the duplicate “to” preceding “IEC 62282 6–100”

§ 173.301b [Amended]

■ 31. In § 173.301b, paragraph (d)(1), remove the period at the end of the sentence and add in its place a semicolon.

PART 175—CARRIAGE BY AIRCRAFT

■ 32. The authority citation for part 175 is revised to read as follows:

Authority: 49 U.S.C. 5101–5128; 44701; 49 CFR 1.81 and 1.97.

■ 33. In § 175.10:

- a. Paragraphs (a)(15)(v)(C) and (a)(19)(vii) and (viii) are revised.
  - b. Paragraph (a)(21), the fourth paragraph, the second designation (ii) is redesignated as (iii).
  - c. Paragraph (a)(24) is revised.
- The revisions read as follows:

§ 175.10 Exceptions for passengers, crewmembers, and air operators.

- (a) \* \* \*
- (15) \* \* \*
- (v) \* \* \*

(C) Is removed and placed in a strong, rigid packaging marked with the words “not restricted” in accordance with paragraph (c)(2) of § 172.102, Special provision 130, of this subchapter; or

\* \* \* \* \*

(19) \* \* \*

(vii) Each fuel cell and fuel cell cartridge must conform to IEC 62282–6–100 and IEC 62282–6–100 Amend. 1 (IBR; see § 171.7 of this subchapter) and must be marked with a manufacturer’s certification that it conforms to the specification. In addition, each fuel cell cartridge must be marked with the

maximum quantity and type of fuel in the cartridge;

(viii) Interaction between fuel cells and integrated batteries in a device must conform to IEC 62282-6-100 and IEC 62282-6-100 Amend. 1 (IBR, see § 171.7 of this subchapter). Fuel cells whose sole function is to charge a battery in the device are not permitted; and

\* \* \* \* \*

(24) Small cartridges fitted into devices with no more than four small cylinders of carbon dioxide or other suitable gas in Division 2.2. The water capacity of each cylinder must not exceed 50 mL (equivalent to a 28 g carbon dioxide cartridge), with the approval of the operator.

\* \* \* \* \*

■ 34. Section 175.25 is revised to read as follows:

**§ 175.25 Notification at air passenger facilities of hazardous materials restrictions.**

(a) *Notices of requirements.* Each person who engages in for-hire air transportation of passengers must display notices of the requirements applicable to the carriage of hazardous materials aboard aircraft, and the penalties for failure to comply with those requirements in accordance with this section. Each notice must be legible, and be prominently displayed so it can be seen by passengers in locations where the aircraft operator issues tickets, checks baggage, and maintains aircraft boarding areas. At a minimum, each notice must communicate the following information:

(1) Federal law forbids the carriage of hazardous materials aboard aircraft in your luggage or on your person. A violation can result in five years' imprisonment and penalties of \$250,000 or more (49 U.S.C. 5124). Hazardous materials include explosives, compressed gases, flammable liquids and solids, oxidizers, poisons, corrosives and radioactive materials. Examples: Paints, lighter fluid, fireworks, tear gases, oxygen bottles, and radio-pharmaceuticals.

(2) There are special exceptions for small quantities (up to 70 ounces total) of medicinal and toilet articles carried in your luggage and certain smoking materials carried on your person. For further information contact your airline representative.

(b) *Ticket purchase.* During the ticket purchase process, regardless if the process is completed remotely (e.g., via the Internet or phone) or when completed at the airport, with or without assistance from another person (e.g., automated check-in facility), the

aircraft operator must ensure that information on the types of hazardous materials a passenger is forbidden to transport aboard an aircraft is provided to passengers. Information may be in text or in pictorial form and, effective January 1, 2015, must be such that the final ticket purchase cannot be completed until the passenger or a person acting on the passenger's behalf has indicated that it understands the restrictions on hazardous materials in baggage.

(c) *Check-in.* Effective January 1, 2015, when the flight check-in process is conducted remotely (e.g., via the Internet or phone) or when completed at the airport, without assistance from another person (e.g., automated check-in kiosk), the aircraft operator must ensure that information on the types of hazardous materials a passenger is forbidden to transport aboard an aircraft is provided to passengers. Information may be in text or in pictorial form and should be such that the check in process cannot be completed until the passenger or a person acting on the passenger's behalf has indicated that it understands the restrictions on hazardous materials in baggage.

(d) *Signage.* When the check in process is not conducted remotely (e.g., at the airport with the assistance of an airline representative), passenger notification of permitted and forbidden hazardous materials may be completed through signage (electronic or otherwise), provided it is legible and prominently displayed.

■ 35. In § 175.75:

■ a. Paragraph (c) is revised.

■ b. Paragraph (e)(1) is revised.

■ c. In paragraph (f), in the QUANTITY AND LOADING TABLE, in Note 1, paragraphs b and d are revised and paragraph e is added.

The revisions and addition read as follows:

**§ 175.75 Quantity limitations and cargo location.**

\* \* \* \* \*

(c) For each package containing a hazardous material acceptable for carriage aboard passenger-carrying aircraft, no more than 25 kg (55 pounds) net weight of hazardous material may be loaded in an inaccessible manner. In addition to the 25 kg limitation, an additional 75 kg (165 pounds) net weight of Division 2.2 (non-flammable compressed gas) may be loaded in an inaccessible manner. The requirements of this paragraph do not apply to Class 9, articles of Identification Numbers UN0012, UN0014, or UN0055 also meeting the requirements of § 173.63(b),

and Limited or Excepted Quantity material.

\* \* \* \* \*

(e) \* \* \*

(1) Class 3, PG III (unless the substance is also labeled CORROSIVE), Class 6.1 (unless the substance is also labeled for any hazard class or division except FLAMMABLE LIQUID), Division 6.2, Class 7 (unless the hazardous material meets the definition of another hazard class), Class 9, articles of Identification Numbers UN0012, UN0014, or UN0055 also meeting the requirements of § 173.63(b), and those marked as a Limited Quantity or Excepted Quantity material.

\* \* \* \* \*

(f) \* \* \*

Note 1: \* \* \*

b. Division 6.1 (unless the substance is also labeled for any hazard class or division except FLAMMABLE LIQUID)

\* \* \* \* \*

d. Class 9, Limited Quantity or Excepted Quantity material.

e. Articles of Identification Numbers UN0012, UN0014, or UN0055 also meeting the requirements of § 173.63(b).

\* \* \* \* \*

**PART 176—CARRIAGE BY VESSEL**

■ 36. The authority citation for part 176 is revised to read as follows:

**Authority:** 49 U.S.C. 5101-5128; 49 CFR 1.81 and 1.97.

■ 37. In § 176.905, paragraph (i) is revised to read as follows:

**§ 176.905 Stowage of motor vehicles or mechanical equipment.**

\* \* \* \* \*

(i) Exceptions—A vehicle or mechanical equipment is excepted from the requirements of this subchapter if any of the following are met:

(1) The vehicle or mechanical equipment has an internal combustion engine using liquid fuel that has a flashpoint less than 38 °C (100 °F), the fuel tank is empty, and the engine is run until it stalls for lack of fuel;

(2) The vehicle or mechanical equipment has an internal combustion engine using liquid fuel that has a flashpoint of 38 °C (100 °F) or higher, the fuel tank contains 418 L (110 gallons) of fuel or less, and there are no fuel leaks in any portion of the fuel system;

(3) The vehicle or mechanical equipment is stowed in a hold or compartment designated by the administration of the country in which the vessel is registered as specially designed and approved for vehicles and mechanical equipment and there are no

signs of leakage from the battery, engine, fuel cell, compressed gas cylinder or accumulator, or fuel tank, as appropriate. For vehicles with batteries connected and fuel tanks containing gasoline transported by U.S. vessels, see 46 CFR 70.10-1 and 90.10-38;

(4) The vehicle or mechanical equipment is electrically powered solely by wet electric storage batteries (including nonspillable batteries) or sodium batteries; or

(5) The vehicle or mechanical equipment is equipped with liquefied petroleum gas or other compressed gas fuel tanks, the tanks are completely

emptied of liquefied or compressed gas and the positive pressure in the tank does not exceed 2 bar (29 psig), the line from the fuel tank to the regulator and the regulator itself is drained of all traces of liquefied or compressed gas, and the fuel shut-off valve is closed.

\* \* \* \* \*

**PART 178—SPECIFICATIONS FOR PACKAGINGS**

■ 38. The authority citation for part 178 continues to read as follows:

**Authority:** 49 U.S.C. 5101-5128; 49 CFR 1.81 and 1.97.

■ 39. In § 178.601, paragraphs (l) introductory text, (l)(1), and (l)(2) introductory text are revised to read as follows:

**§ 178.601 General requirements.**

\* \* \* \* \*

(l) *Record retention.* Following each design qualification test and each periodic retest on a packaging, a test report must be prepared.

(1) The test report must be maintained at each location where the packaging is manufactured, certified, and a design qualification test or periodic retest is conducted as follows:

| Responsible party                          | Duration  |
|--|---|
| Person manufacturing the packaging .....   | As long as manufactured and two years thereafter.   |
| Person performing design testing .....     | Design test maintained for a single or composite packaging for six years after the test is successfully performed and for a combination packaging or packaging intended for infectious substances for seven years after the test is successfully performed.   |
| Person performing periodic retesting ..... | Performance test maintained for a single or composite packaging for one year after the test is successfully performed and for a combination packaging or packaging intended for infectious substances for two years after the test is successfully performed. |

(2) The test report must be made available to a user of a packaging or a representative of the Department upon request. The test report, at a minimum, must contain the following information:

\* \* \* \* \*

■ 40. In § 178.801, paragraph (l) is revised to read as follows:

**§ 178.801 General requirements.**

\* \* \* \* \*

(l) *Record retention.* Following each design qualification test and each

periodic retest on an IBC, a test report must be prepared.

(1) The test report must be maintained at each location where the packaging is manufactured, certified, and a design qualification test or periodic retest is conducted as follows:

| Responsible party                          | Duration  |
|--|---|
| Person manufacturing the packaging .....   | As long as manufactured and two years thereafter.   |
| Person performing design testing .....     | Design test maintained for a single or composite packaging for six years after the test is successfully performed and for a combination packaging or packaging intended for infectious substances for seven years after the test is successfully performed.   |
| Person performing periodic retesting ..... | Performance test maintained for a single or composite packaging for one year after the test is successfully performed and for a combination packaging or packaging intended for infectious substances for two years after the test is successfully performed. |

(2) The test report must be made available to a user of a packaging or a representative of the Department upon request. The test report, at a minimum, must contain the following information:

- (i) Name and address of test facility;
- (ii) Name and address of the person certifying the IBC;
- (iii) A unique test report identification;
- (iv) Date of test report;
- (v) Manufacturer of the IBC;
- (vi) Description of the IBC design type (e.g., dimensions, materials, closures,

- thickness, representative service equipment, etc.);
- (viii) Maximum IBC capacity;
- (ix) Characteristics of test contents;
- (x) Test descriptions and results (including drop heights, hydrostatic pressures, tear propagation length, etc.); and
- (xi) The signature of the person conducting the test, and name of the person responsible for testing.

■ 41. In § 178.955, paragraph (i) introductory text, (i)(1), and (i)(2)

introductory text are revised to read as follows:

**§ 178.955 General Requirements.**

\* \* \* \* \*

(i) *Record retention.* Following each design qualification test and each periodic retest on a Large Packaging, a test report must be prepared.

(1) The test report must be maintained at each location where the packaging is manufactured, certified, and a design qualification test or periodic retest is conducted as follows:

| Responsible party                        | Duration  |
|--|---|
| Person manufacturing the packaging ..... | As long as manufactured and two years thereafter. |

| Responsible party                          | Duration  |
|--|---|
| Person performing design testing .....     | Design test maintained for a single or composite packaging for six years after the test is successfully performed and for a combination packaging or packaging intended for infectious substances for seven years after the test is successfully performed.   |
| Person performing periodic retesting ..... | Performance test maintained for a single or composite packaging for one year after the test is successfully performed and for a combination packaging or packaging intended for infectious substances for two years after the test is successfully performed. |

(2) The test report must be made available to a user of a Large Packaging or a representative of the Department of Transportation upon request. The test

report, at a minimum, must contain the following information:

\* \* \* \* \*

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**Cynthia L. Quarterman,**  
*Administrator, Pipeline and Hazardous Materials Safety Administration.*

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