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DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 172, 173, 175, and 176

[Docket No. PHMSA-2009-0126 (HM-215K)]

RIN 2137-AE76

Hazardous Materials: Harmonization with the United Nations Recommendations on the Transport of Dangerous Goods: Model Regulations, International Maritime Dangerous Goods Code, and the International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air.

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

ACTION: Final rule.

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

DATES: Effective Date: January 1, 2012.

Voluntary compliance date: PHMSA is authorizing voluntary compliance beginning [INSERT DATE OF PUBLICATION].

ADDRESSES: For access to the docket to read background documents, including those referenced in this document, or to read comments received, go to http://www.regulations.gov at any time and insert "PHMSA-2009-0126" in the "Keyword" box, and then click "Search." You may also view the docket online by visiting the Docket Management Facility in Room W12–140, DOT Building, 1200 New Jersey Avenue, SE, Washington, DC, between 9 a.m. and 5 p.m., e.t. Monday through Friday, except Federal holidays.

Anyone is able to search the electronic form for all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review the U.S. Department of Transportation's (DOT) complete Privacy Act Statement in the **Federal Register** published on January 17, 2008 (73 FR 3316), or you may visit http://edocket.access.gpo.gov/2008/pdf/E8-785.pdf.

FOR FURTHER INFORMATION CONTACT: Michael Stevens, telephone (202) 366-8553, or Shane Kelley, telephone (202) 366-0656, Standards and Rulemaking Division, telephone (202) 366-8553, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue, S.E., 2nd Floor, Washington, DC. 20590-0001.

SUPPLEMENTARY INFORMATION:

I. Background.

On January 19, 2011, PHMSA published a final rule under Docket PHMSA-2009-0126 (HM-215K; 76 FR 3308) that revised the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) to align with various international standards. The final rule adopted amendments to the HMR regarding hazard communication, hazard classification including packing group assignment, packaging authorization, air transport quantity limitations, and various other international harmonization-related topics. The amendments were necessary to align the HMR with the latest revisions to the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO Technical Instructions), the International Maritime Organization's Dangerous Goods Code (IMDG Code), Transport Canada's Transportation of Dangerous Goods Regulations (TDG Regulations), and the United Nations Recommendations on the Transport of Dangerous Goods: Model Regulations (UN Model Regulations) to facilitate to the seamless transportation of hazardous materials internationally, to, through and from the United States.

In this document, PHMSA responds to administrative appeals, provides clarifications, and corrects typographical and other minor errors adopted in the January 19, 2011final rule.

II. Administrative appeals filed in response to the HM-215K final rule.

In response to the January 19, 2011 final rule, administrative appeals were submitted by the following companies and organizations:

American Coatings Association (ACA).
Association of Hazmat Shippers, Inc. (AHS).
Dangerous Goods Advisory Council, Inc. (DGAC).
Fuel Cell and Hydrogen Energy Association (FCHEA).
Healthcare Distribution Management Association (HDMA).
International Air Transport Association (IATA).
Patton Boggs, LLP., on behalf of Lilliputian Systems, Inc. (LSI)
PPG Industries (PPG).
Sporting Arms & Ammunition Manufacturer's Institute (SAAMI).

The administrative appeals addressed in this document are discussed in detail below. Because some of the issues raised by appellants require notice and public comment under the Administrative Procedure Act (APA; 5 U.S.C. 553), they are being proposed in a separate notice of proposed rulemaking (NPRM) under this docket number (PHMSA-2009-0126; RIN 2137-AE83). For example, FCHEA and LSI requested that PHMSA revise § 175.10 to align with the ICAO Technical Instructions and allow spare fuel cell cartridges containing Division 2.1 flammable gas to be carried in checked baggage. We are also aware of recent actions taken by the International Civil Aviation Organization's Dangerous Goods Panel regarding certain lithium ion battery-powered mobility aids (e.g., wheelchairs, travel scooters) offered by passengers for air transport. Such actions could affect the outcome of the administrative appeal submitted by IATA in response to the January 19, 2011 final rule and, therefore, those actions will also be addressed in the separate NPRM.

We can, however, in some instances adopt a provision submitted in an administrative appeal that was inadvertently omitted in the final rule if it is clearly within the scope of changes proposed in the notice, does not require substantive changes from the international standard on which it is based, and imposes minimal or no cost impacts on persons subject to the requirement. Otherwise, in order to provide opportunity for notice and comment, the change must first be proposed in an NPRM.

A. Use of the square-on-point with identification number limited quantity marking.

Currently, under § 172.315 of the HMR and except for transportation by aircraft, a packaging containing a limited quantity material is not required to be marked with the proper shipping name when marked with a square-on-point containing the UN identification (ID) number of the limited quantity material. In the January 19, 2011 final rule, we provided a one-

year transition period to authorize continued use of this marking before the revisions to the limited quantity markings become effective. ACA, DGAC, and PPG all state the one-year transition period does not allow sufficient time to deplete stock(s) of packagings pre-printed with the square-on-point mark containing the ID number and requested an extension of three- to five-years. Appellants request that PHMSA provide a transition period similar to the transition period provided for the phase-out of the ORM-D marking, depending on the mode of transportation. Appellants also requested that any transition periods be included in §§ 171.14 (transitional provisions) and 172.300 (marking applicability).

PHMSA response.

We agree. Shippers should be provided the same transition period that authorizes the continued use of the square-on-point mark containing the UN ID number provided for ORM-D markings. In this document, we are granting the appeals submitted by ACA, DGAC, and PPG and revising § 172.315 by extending the transition period, until December 31, 2013 for other than air transportation. For domestic air transportation, we are authorizing use of the square-on-point mark containing the ID number to continue until December 31, 2012 as adopted in the January 19, 2011 final rule. However, we are not revising §§ 171.14 and 172.300 to include the transition periods because we believe it is overly duplicative.

B. Fuel cell cartridges aboard passenger-carrying aircraft.

In this document, we respond to two administrative appeals related to the transportation of fuel cell cartridges. The administrative appeals are discussed as follows:

1. Fuel cell cartridges transported as ORM-D by air.

In the January 19, 2011 final rule, we revised the limited quantity requirements for fuel cell cartridges to allow transportation as "Consumer commodity, ORM-D," except when

transported by aircraft.

FCHEA states not allowing the transportation by aircraft of fuel cell cartridges as ORM-D-AIR is inconsistent with the ICAO Technical Instructions and the UN Model Regulations and claims that the difference is "impractical" from an international trade and enforcement standpoint. They note there are no safety consequences when comparing the air transportation of fuel cell cartridges shipped as limited quantity material and those shipped as ORM-D-AIR. They also note that fuel cell cartridges are sturdy articles that meet a range of tests and requirements to ensure they do not pose unreasonable risks in transportation. FCHEA requests PHMSA to allow fuel cell cartridges to be transported as ORM-D-AIR by aircraft so that fuel cell technologies are not placed at a disadvantage compared to other technologies authorized to be transported by aircraft.

PHMSA response.

We deny FCHEA's administrative appeal that would authorize fuel cell cartridges to be offered and transported as "Consumer commodity, ORM-D-AIR," by aircraft. When packages of articles or substances are renamed "Consumer commodity" and are reclassed as "ORM-D-AIR," the identity and risk posed by the substance or article is no longer communicated. This is one of the primary reasons the ORM-D-AIR hazard class is being phased-out by the end of 2012. We believe the authorization to offer fuel cell cartridges as limited quantities by passenger-carrying and cargo-only aircraft satisfies the need for the expedient transportation of such articles, while communicating their risk, and imposing minimal regulatory burden.

2. Fuel cell systems and cartridges aboard passenger-carrying aircraft.

FCHEA's administrative appeal indicated that in addition to the differences in fuel cell cartridge chemistries authorized in checked baggage, there are a number of inconsistencies and

editorial issues when comparing § 175.10 and the ICAO Technical Instructions regarding fuel cell systems and cartridges used to power portable electronic devices authorized to be carried aboard passenger-carrying aircraft. They note that over the last several years, revisions to the ICAO Technical Instructions have made the regulatory language clearer. FCHEA requests that PHMSA make similar revisions to avoid any potential confusion between requirements under the HMR and the ICAO Technical Instructions.

PHMSA response.

We agree. Thus, we are granting FCHEA's administrative appeal to editorially revise § 175.10(a)(19) to be consistent with language in 8; 1.1.2 (t) of the ICAO Technical Instructions. This clarification does not, however, revise current HMR provisions regarding such articles and is entirely editorial in nature.

C. General requirements for transportation by aircraft.

As adopted in the January 19, 2011 final rule, the general air packaging requirements for combination packagings prohibit Class 1 (explosive) and Class 7 (radioactive) material to be offered for transportation as limited quantity material by aircraft. See 76 FR 3369. In their administrative appeal, DGAC and SAAMI state this is inconsistent with other provisions in the HMR that allow the transportation of these materials by aircraft, specifically, §§ 173.421 through 173.425 for limited quantity radioactive material, instruments and articles and § 173.63(b) for certain Division 1.4S explosive articles. DGAC and SAAMI request that PHMSA revise the list of prohibited hazardous material and articles and Table 3 in § 173.27(f) to clarify that Class 1 (explosive) material conforming to § 173.63(b) and Class 7 (radioactive) material conforming to §§ 173.421 through 173.425, as applicable, are authorized for transportation by aircraft. Additionally, DGAC requests UN3334 ("Aviation regulated liquid, n.o.s.") and UN3335

("Aviation regulated solid, n.o.s.") be added to the list of Class 9 (miscellaneous hazard) material as the substances are currently authorized as limited quantity material under the § 173.155 exceptions for Class 9 material and for consistency with the ICAO Technical Instructions.

PHMSA response.

We agree. DGAC and SAAMI are correct, and we are therefore granting their administrative appeals by revising § 173.27(f) to reflect current regulations that authorize the shipment of these substances and articles by aircraft. We want to point out that although certain Class 1 and Class 7 materials are indicated as eligible for air transport in § 173.27(f), such indication is provided for informational purposes to aid readers in indentifying the appropriate packaging and other regulatory provisions for such materials. For example, packages of such materials are not marked with the limited quantity "Y" mark prescribed in § 172.315 but rather as prescribed in §§ 173.63 and 173.421 through 173.425, as appropriate.

D. Self-reactive material as a limited quantity.

In the UN Model Regulations, certain Division 4.1 self-reactive materials are authorized limited quantity exceptions. Currently, the HMR do not authorize such exceptions. AHS appealed to PHMSA to include a limited quantity exception for the material "Self-reactive solid, Type F, UN3230." AHS notes that they filed a petition for rulemaking in 2009 (P-1542), to which PHMSA replied by stating that the petition merited rulemaking action and that it would be addressed in the January 19, 2011 final rule.

PHMSA response.

We recognize the merits of AHS's appeal and petition for rulemaking, but are denying AHS's administrative appeal because it is beyond the scope of this rulemaking. To accommodate the federally mandated requirement for notice and comment during a significant

rulemaking action, the petition must be presented under a notice of proposed rulemaking to allow for comment by all interested parties. We regret the unintentional omission of a proposal in the NPRM for a limited quantity exception for "Self-reactive solid, Type F, UN3230" and for adoption under the January 19, 2011 final rule. We fully intend to include a proposal for this material as a broader effort to revise the packaging requirements for all eligible self-reactive materials in a near-term rulemaking action.

III. Clarification of the HM-215K Final Rule.

A. Use of the limited quantity "Y" marking.

In the January 19, 2011 final rule, we adopted new limited quantity markings consistent with the ICAO Technical Instructions, IMDG Code, and the UN Model Regulations to include a limited quantity "Y" marking for display on packagings prepared for air transportation. In their administrative appeals, ACA and DGAC ask for a clearer indication of when this new marking may be used in modes of transportation by other than aircraft. They note PHMSA's consideration in the January 19 final rule of a comment stating that the limited quantity "Y" marking should be authorized for use in all modes of transportation if displayed on a packaging that meets all conditions and requirements for air transportation. See 76 FR 3313. Additionally, on the basis of their opposition to adoption of the air transport requirements for limited quantities consistent with the ICAO Technical Instructions, DGAC recommends that:

> The ''Y'' package mark [proposed] in § 172.315 not be required * * * [and] recommend that [PHMSA] allow permissive use of the ''Y'' mark for all modes of transport when the package meets the relevant requirements of the ICAO TI.

We agreed with the DGAC recommendation that a ''Y'' marked package in full conformance with the air transport provisions prescribed for a limited quantity package should

be authorized in all modes of transportation and also stated we would revise § 171.22 accordingly. Although we indicated our intent to revise § 171.22, which prescribes the authorization and conditions for use of international standards, we inadvertently failed to amend the corresponding regulatory text of the section. In its administrative appeal, ACA also requests that PHMSA amend this section to indicate the limited quantity "Y" marking is authorized for use in all modes of transportation. Further, DGAC suggests that we revise § 172.315 to include language authorizing the use of this marking by modes other than air.

PHMSA response.

We agree. Our indication in the final rule to revise § 171.22 was in error as that section prescribes the authorization to use the various international standards. Regardless, we clearly indicated in the preamble of the final rule that the display of a "Y" marking on limited quantity package that is not intended for transportation by aircraft is authorized. Thus, because a limited quantity package prepared for air transportation by default is authorized by all modes of transportation, the administrative appeals requesting that PHMSA align with the international standards are hereby granted. See the Section-by-Section review of changes for a full discussion of the § 172.315 revisions and requirements.

B. General requirements for transportation by aircraft.

In the January 19, 2011 final rule, we revised the § 173.27 general requirements for transportation of packagings by aircraft. Specifically, we revised paragraph (f) by including a new Table 3 that prescribes the requirements for authorized limited quantity material intended for air transportation consistent with the 2011–2012 ICAO Technical Instructions, where appropriate.

AHS notes that PHMSA included "Consumer commodity, ID8000" as authorized Class 9

material but failed to revise paragraph (f)(2)(i)(G) for Class 9 material not authorized as limited quantity material by aircraft. As indicated by AHS, "Consumer commodity, ID8000" may be shipped as limited quantity material by aircraft, thus "ID8000" should be added to the list of materials excepted from the Class 9 prohibition in paragraph (f)(2)(i)(G).

PHMSA response.

We agree. In this final rule, we are revising § 173.27(f)(2)(i)(G) to include "ID8000" as a material excepted from the Class 9 prohibition. In addition, for clarification, we are revising Table 3 to indicate that the note associated with Class 9 liquid material applies to both liquid and solid material.

C. Packaging provisions for metal hydride storage systems.

In the January 19, 2011 final rule, we added a new section, § 173.311, for packaging requirements for "Metal hydride storage systems, UN3468" used for the transport of hydrogen. Prior to the January 19, 2011 final rule, the HMR did not prescribe methods for the construction, qualification, marking, and requalification of these systems although we issued a number of special permits and competent authority approvals (CAA) to allow the manufacture and use of similar systems for the transport of hydrogen.

In a January 24, 2011 request for clarification, Ovonic Hydrogen Systems, LLC (OHS) expresses concern that the new § 173.311 requires transportable metal hydride storage systems to meet ISO Standard 16111:2008 (ISO 16111) which does not recognize the storage canisters manufactured by OHS under its currently-held CAA. Specifically, OHS manufactures storage canisters based on refillable aluminum cylinders designed, constructed, and tested to DOT 3AL specifications. Instead, ISO 16111 requires the use of aluminum cylinders constructed and tested to ISO 7866 specifications. Testing and marking requirements under ISO 7866 differ from

testing and marking requirements for DOT 3AL specifications and OHS states its storage canisters are non-compliant as a result.

PHMSA response.

We disagree with OHS's assertion. The adoption of packaging requirements for metal hydride storage systems in § 173.311 does not invalidate any active special permits or CAAs authorizing the transportation of hydrogen in "metal hydride storage canisters." When a special permit or CAA expires and is not renewed, systems must conform with the § 173.311 requirements for metal hydride storage systems to include the requirements of ISO 16111. Special permits issued by the Associate Administrator authorize the transportation of hazardous material and packaging within the United States only. International regulatory agencies may not recognize a special permit granted by PHMSA. However, metal hydride storage canisters designed, constructed, and otherwise conforming to requirements authorized under a CAA issued by PHMSA should be honored by other competent authorities worldwide as a valid alternative to ISO 16111.

IV. Section-by-Section Review of Changes

Part 172

Section 172.101

This section provides a hazardous materials table that identifies listed materials as hazardous material for purposes of transportation.

For the table entry "Calcium hypochlorite, hydrated or Calcium hypochlorite, hydrated mixtures, with not less than 5.5 percent but not more than 16 percent water, UN2880," the PG III information was inadvertently removed. Under a final rule published December 29, 2006 (HM-215I, 71 FR 78596), we revised the PG II information to remove Special provision 166.

However, the instruction to revise this entry did not include the PG III information and, therefore, it was inadvertently removed from the 49 CFR. In this document, we are revising the entry to add the PG III information to the entry to reflect the correct descriptions for this entry. This correction reads as a "remove/add."

For the table entry "Tellurium compound, n.o.s., UN3284," effective October 1, 2010, we inadvertently added the term "solid" to the proper shipping name to read "Tellurium compound, solid, n.o.s." in the January 19, 2011 final rule. In this document, we are revising the proper shipping name to remove the term "solid." This correction reads as a "remove/add."

Section 172.315

This section prescribes the requirements for marking packages containing limited quantity material. Based on administrative appeals submitted in response to the January 19, 2011 final rule (HM-215K; 76 FR 3308), and numerous requests for clarification of the limited quantity marking requirements, we are revising § 172.315 to authorize continued use of the limited quantity marking (i.e., square-on-point and Identification Number) prescribed in § 172.315, in effect on October 1, 2010, for the same duration offered for continued use of the ORM-D-AIR and ORM-D markings, December 31, 2012 and December 31, 2013, respectively. For transportation by aircraft, the hazard class label (when applicable) and proper shipping name marking are still required. Additionally, we are revising § 172.315 to allow marking of a limited quantity package not intended for transportation by air with the limited quantity "Y" marking if the packaging is prepared in accordance with § 173.27(f) indicating it is suitable for transportation as a limited quantity package by aircraft. A "Y" marked package transported by a mode other than air indicates the package would be suitable for air transport if marked, labeled and accompanied by a shipping paper and is otherwise packaged in accordance with 3; 4 of the

ICAO Technical Instructions as limited by subpart C of Part 171 and Part 175 of the HMR or § 173.27(f) and Part 175 of the HMR.

In the January 19 final rule, we erroneously adopted limited quantity marking requirements applicable to cargo transport units (CTU) containing packages of hazardous materials in only limited quantities. We erred by stating the marking must be applied to only one side and one end of the CTU when we should have required the marking on all four exterior sides of the CTU consistent with 3.4.5.5 of the IMDG Code. In this document, we are correcting that error in § 172.315. Finally, we are reorganizing the format of the language used in this section solely for editorial clarification.

Section 173.27

This section prescribes general requirements for the transportation of hazardous material by aircraft. Based on appeals and requests for clarification, in this document we are revising § 173.27(f). Specifically, we are revising paragraph (f)(2) and Table 3 in paragraph (f) by adding materials currently authorized elsewhere in the HMR and to provide additional clarification regarding those hazardous materials and articles eligible for transport by aircraft under the conditions prescribed in this paragraph. The authorized hazardous materials and articles added and referenced are as follows: (1) Class 1 (explosive) articles in accordance with § 173.63(b); (2) Class 7 (radioactive) material in accordance with applicable §§ 173.421 through 173.425; and (3) "Aviation regulated liquid, n.o.s., UN3334," "Aviation regulated solid, n.o.s., UN3335," and "Consumer commodity, ID8000." As stated earlier in this preamble, although certain Class 1 and Class 7 materials are indicated as eligible for air transport in § 173.27(f), because they do not meet guiding principles established for limited quantities such indication is provided for informational purposes to aid readers in identifying the appropriate

packaging and other provisions for such materials. For example, packages of Class 7 are not marked with the limited quantity "Y" mark prescribed in § 172.315 but rather as prescribed in §§ 173.421 through 173.425, as appropriate.

Section 173.124

Section 173.124 defines a Class 4 material. For consistency with a revision adopted in the UN Model Regulations, PHMSA amended the definition of "self-heating" in § 173.124(b)(2) of the HMR in the January 19 final rule. In this document, PHMSA is correcting the typographical error in the heading of the definition.

Section 173.151

Section 173.151 prescribes exceptions for a Class 4 material. Paragraph (d) prescribes exceptions for Division 4.3 solid material of Packing Groups II and III. The HMR do not authorize limited quantity packages of such substances to be reclassified as ORM-D or to be renamed "Consumer commodity." In the January 19, 2011 final rule, PHMSA inadvertently revised the third sentence of paragraph (d) to extend the additional exceptions for limited quantities and ORM in § 173.156 to Division 4.3 substances, when no such authorization prior to this rulemaking existed nor was it considered in this rulemaking due to the obvious risk to transportation safety. Therefore, in this final rule, PHMSA is removing the reference to § 173.156 in the third sentence of § 173.151(d).

Section 173.156

Section 173.156 provides additional exceptions for limited quantity and ORM packages. In the January 19, 2011 final rule, PHMSA unintentionally amended paragraph (b)(1) by requiring the marking of such packages in accordance with subpart D of part 172. In this final rule, PHMSA is amending § 173.156(b)(1) by removing the requirement to mark such packages.

Because paragraph (b)(2) authorizes the common carriage of such packages, the marking requirements that existed prior to the January 19, 2011 final rule will remain as adopted.

Section 173.306

Section 173.306 prescribes requirements for limited quantity of compressed gases. In this document, we are revising certain paragraphs for clarification of requirements adopted in the final rule and to correct minor grammatical errors.

Section 173.311

This section specifies packaging instructions for hydrogen in metal hydride storage systems. The January 19, 2011 final rule incorrectly refers to ISO standards in § 178.71(f) that apply to the design and construction of UN refillable welded cylinders rather than § 178.71(m) for the design and construction of UN metal hydride storage systems. In this final rule, we are revising the section to correctly refer to § 178.71(m).

Part 175

Section 175.10

Section 175.10 prescribes the conditions under which a passenger, crew member, or an operator may carry hazardous materials aboard a passenger-carrying aircraft. In response to FCHEA's administrative appeal, in this final rule we are editorially revising the language in § 175.10(a)(19) for the carriage of fuel cell systems and fuel cell cartridges for consistency with the ICAO Technical Instructions. These revisions do not amend the fuel cell cartridge chemistries authorized in checked baggage as adopted in the January 19 final rule.

Section 175.75

Section 175.75 prescribes quantity limitations and cargo location requirements for hazardous materials transported by aircraft. In this document, we are revising for clarification

the definition of "Inaccessible" in paragraph (d)(2) to mean any package that is loaded where a crew member or other authorized person cannot access, handle and, when size and weight permit, separate such packages from other cargo during flight, including a freight container in an accessible cargo compartment when packages are loaded in an inaccessible manner. This definition is consistent with the defined term "Accessible" and is revised for clarification only. Additionally, PHMSA is revising the heading in the third column of the paragraph (f) Quantity and Loading Table for clarity by adding the words "per cargo compartment." Since issuing the January 19 final rule, we have fielded numerous inquiries regarding whether the limitation was now "per aircraft" as opposed to "per compartment." Additionally, we are correcting the error in Note a. of the table as published in the January 19 final rule. Notwithstanding the correction made to Note a. of the § 175.75(f) table, we want to emphasize the revisions made in this document to § 175.75 are for editorial clarification only.

Part 176

Section 176.905

This section specifies requirements for vessel transport of motor vehicles and equipment. In this final rule, we are revising paragraph (j) to refer to the correct section paragraph regarding items of equipment containing hazardous materials, specifically, § 173.220(f), that are integral components of a motor vehicle, engine or mechanical equipment.

V. Summary of Changes Regarding Limited Quantity Material and ORM-D.

In an effort to clarify the amendments to the HMR associated with the transition from the domestic ORM-D system for transportation of limited quantity material to the international system, we offer the following:

Applicability of the ORM-D system.

- Until December 31, 2013, shippers may continue to rename a limited quantity hazardous material as a "Consumer commodity, ORM-D" (see § 171.8), as authorized in the appropriate packaging exception for the material. Beginning January 1, 2014, limited quantity hazardous material will no longer be authorized the "Consumer commodity" proper shipping name except those eligible and prepared for shipment by aircraft in accordance with § 173.167 and using the newly adopted identification number "ID8000." Such packages are eligible for transportation by all modes but must be marked with the limited quantity "Y" mark prescribed in § 172.315(b) indicating the package is suitable for air transportation.

- Until December 31, 2013, shippers may continue to reclass limited quantity hazardous material as "Other Regulated Material" otherwise known as ORM-D. Limited quantity material reclassed as ORM-D and transported by modes other than air may continue to be prepared and packaged in accordance with the appropriate packaging exceptions for the hazardous material (e.g., § 173.150 for a Class 3 flammable liquid substance), and be transported in a package displaying the ORM-D marking. Until December 31, 2012, shippers may continue to ship ORM-D-AIR by aircraft. Until such time, ORM-D offered for shipment by aircraft may continue to be prepared and packaged in accordance with the requirements of § 173.27 in effect October 1, 2010, and transported in packages displaying the ORM-D-AIR marking.

- Until December 31, 2013, shippers may continue to display the limited quantity marking (i.e., the square-on-point and identification number) on a package containing limited quantity material in accordance with § 172.315 in effect October 1, 2010.

Use of the new limited quantity markings.

- Beginning January 1, 2014, for modes of transportation other than air, shippers of limited quantity material must display the limited quantity marking adopted in § 172.315 under

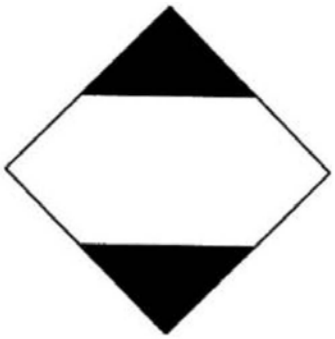
the January 19, 2011 final rule (i.e., the square-on-point with top and bottom portion black and the center white). See illustration below.

- Beginning January 1, 2013, for transportation by air, shippers of limited quantity material must display the limited quantity "Y" marking adopted in § 172.315 under the January 19, 2011 final rule. See illustration below.

Clarification of limited quantity marking requirements.

- A limited quantity package should not display both an ORM-D or ORM-D-AIR marking and one of the new limited quantity markings, as this may only serve to frustrate a shipment while in transportation. Such dual markings are only authorized during the transition period. Once the transition period expires (December 31, 2012 or December 31, 2013), the ORM-D or ORM-D-AIR marking must be covered, obliterated, or otherwise obstructed from view.

Limited quantity marking for packages not prepared for air transport.



Limited quantity marking for packages prepared for air transport.

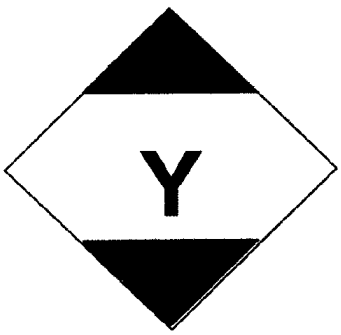


Table of Potential Limited Quantity Packaging Scenarios.

Packaging scenario.	Authorized? If authorized, when?	Mandatory? If mandatory, when?	Label(s) required?	Shipping papers required?	PSN and ID number marking required?	Notes.
ORM-D Packaging						
Packaging marked ORM-D transported by	Yes, until December 31,	No.	No.	No. Unless a hazardous waste,	No.	A shipper may voluntarily mark instead with the new

modes other than air.	2013.			hazardous substance or marine pollutant.		limited quantity markings illustrated above. See also "Limited Quantity Packaging" below.
Packaging marked ORM-D transported by air.	No.	…..	…..	…..	…..	…..
Packaging marked ORM-D-AIR transported by modes other than air.	Yes, until, December 31, 2012.	No.	No.	No. Unless a hazardous waste, hazardous substance or marine pollutant.	No.	A shipper may voluntarily mark instead with the new limited quantity markings illustrated above. See Limited Quantity Packaging below. A shipper marking a package with ORM-D-Air must ensure the packaging meets the requirements of § 173.27 effective October 1, 2010 even if the package is not transported by air.
Packaging marked ORM-D-AIR transported by air.	Yes, until, December 31, 2012.	No.	No.	Yes.	Yes.	
Packaging marked ORM-D/ORM-D-AIR also marked with one of the new limited quantity markings.	For ORM-D: Yes. For ORM-D-AIR: No.	…...	…..	…..	…..	The limited quantity "Y" mark indicates the package conforms to § 173.27(f) effective January 1, 2012. Although it may not be specifically prohibited, we recommend that packages not display both types of surface limited quantity markings to avoid confusion and frustration of shipment during the course of transportation.
Limited Quantity Packaging						
Packaging marked with a square-on-point containing the ID # transported by modes other than air.	Yes, until, December 31, 2013.	No.	No.	No.	See note.	Proper shipping name not required to be marked when packaging is marked with a square-on-point containing the UN ID #.
Packaging marked with a square-on-point containing the UN ID # transported by air.	Yes, until, December 31, 2012.	No.	Yes.	Yes.	Yes.	Proper shipping name is required to be marked when packaging is marked with a square-on-point containing the UN ID #.
Packaging marked with a surface LQ marking transported by modes other than air.	Yes.	Yes, beginning January 1, 2014	No.	No. Unless a hazardous waste, hazardous substance or marine pollutant.	No. Unless a hazardous waste or hazardous substance.	Voluntary compliance authorized as of January 1, 2011. Identification number not required.
Packaging marked with a standard LQ marking transported by air.	No.	…..	…..	…..	…..	…..
Packaging marked with an LQ "Y" marking transported by modes other than air.	Yes.	No.	No.	No. Unless a hazardous waste, hazardous substance or marine pollutant.	No. Unless a hazardous waste or a hazardous	A shipper marking a package with an LQ "Y" marking must ensure the packaging meets the requirements of § 173.27(f)

					substance.	effective January 1, 2011 even if the package is not transported by air. Identification number not required.
Packaging marked with an LQ "Y" marking transported by air.	Yes.	Yes, beginning January 1, 2013	Yes.	Yes.	Yes.	Voluntary compliance authorized as of January 1, 2011.
Packaging marked with a square-on-point containing the UN ID # and also marked with one of the new limited quantity markings or any combination.	No.	…..	…..	…..	…..	…..

VI. Regulatory Analyses and Notices

A. Statutory/Legal Authority for this Rulemaking

This final rule is published under the following statutory authorities:

1. 49 U.S.C. 5103(b) authorizes the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce. This final rule responds to administrative appeals submitted in response to final rule HM-215K (January 19, 2011; 76 FR 3308), provides editorial clarification and corrects minor errors associated with the final rule.

2. 49 U.S.C. 5120(b) authorizes the Secretary of Transportation to ensure that, to the extent practicable, regulations governing the transportation of hazardous materials in commerce are consistent with standards adopted by international authorities.

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

This final rule is not a significant regulatory action under section 3(f) of Executive Order 12866 and was not reviewed by the Office of Management and Budget. This final rule is a non-significant rule under the Regulatory Policies and Procedures of the Department of

Transportation [44 FR 11034]. Additionally, E.O. 13563 supplements and reaffirms E.O. 12866, stressing that, to the extent permitted by law, an agency rulemaking action must be based on benefits that justify its costs, impose the least burden, consider cumulative burdens, maximize benefits, use performance objectives, and assess available alternatives. The revisions adopted in this final rule do not alter the cost-benefit analysis and conclusions contained in the Regulatory Evaluation prepared for the January 19, 2011 final rule. The Regulatory Evaluation is available for review in the public docket for this rulemaking.

C. Executive Order 13132

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132 ("Federalism"), and the President's memorandum on "Preemption" published in the Federal Register on May 22, 2009 (74 FR 24693). This final rule preempts State, local and Indian tribe requirements but does not propose any regulation that has substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

The Federal hazardous material transportation law, 49 U.S.C. 5101-5128, contains an express preemption provision (49 U.S.C. 5125(b)) that preempts State, local, and Indian tribe requirements for certain subjects. The subjects are:

(1) The designation, description, and classification of hazardous materials;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous materials;

(3) The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; and

(5) The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This final rule addresses all the covered subject items above and preempts State, local, and Indian tribe requirements not meeting the "substantively the same" standard. This final rule is necessary to incorporate revisions to the HMR based on administrative appeals submitted in response to the January 19, 2011 final rule, effective January 1, 2011. Federal hazardous materials transportation law provides at section 5125(b)(2) that, if DOT issues a regulation concerning any of the covered subjects, DOT must determine and publish in the Federal Register the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. The effective date of Federal preemption is [INSERT DATE 90 DAYS FROM PUBLICATION DATE OF FINAL RULE IN THE FEDERAL REGISTER].

D. Executive Order 13175

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

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

The Regulatory Flexibility Act (5 U.S.C. 601 et seq.) requires an agency to review regulations to assess their impact on small entities unless the agency determines that a rule is not expected to have a significant impact on a substantial number of small entities. The response to appeals and revisions contained in this final rule will have little or no negative effect on the regulated industry. Based on the assessment in the Regulatory Evaluation to the January 19, 2011 final rule, I hereby certify that, while this rule applies to a substantial number of small entities, there will not be a significant economic impact on those small entities. A detailed Regulatory Flexibility analysis is available for review in the docket.

F. Paperwork Reduction Act

This final rule imposes no new information collection requirements.

G. Regulatory Identifier Number (RIN)

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

H. Unfunded Mandates Reform Act

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

I. Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA) requires Federal agencies to consider the consequences of major Federal actions and prepare a detailed statement on actions

significantly affecting the quality of the human environment. In the January 19, 2011 final rule, we developed an assessment to determine the effects of these revisions on the environment and whether a more comprehensive environmental impact statement may be required. Our findings conclude that there are no significant environmental impacts associated with this final rule. Consistency in the regulations for the transportation of hazardous materials aids in shippers' understanding of what is required and permits shippers to more easily comply with safety regulations and avoid the potential for environmental damage or contamination. For interested parties, an environmental assessment was included with the January 19, 2011 final rule available in the public docket. Additionally, we conclude that there are no significant environmental impacts associated with the amendments adopted in this document regarding the administrative appeals submitted in response to the January 19 final rule.

J. Privacy Act

Anyone is able to search the electronic form of any written communications and comments received into any of our dockets by the name of the individual submitting the document (or signing the document, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477) or you may visit http://www.dot.gov/privacy.html.

K. International Trade Analysis

The Trade Agreements Act of 1979 (Public Law 96-39), as amended by the Uruguay Round Agreements Act (Public Law 103-465), prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. For purposes of these requirements, Federal agencies may participate in the establishment of international standards, so long as the standards have a

legitimate domestic objective, such as providing for safety, and do not operate to exclude imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. PHMSA participates in the establishment of international standards in order to protect the safety of the American public, and we have assessed the effects of the final rule to ensure that it does not exclude imports that meet this objective. Accordingly, this rulemaking is consistent with PHMSA's obligations under the Trade Agreement Act, as amended.

List of Subjects

49 CFR Part 172

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

49 CFR Part 173

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

49 CFR Part 175

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

49 CFR Part 176

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

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

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

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

Authority: 49 U.S.C. 5101-5128; 44701; 49 CFR 1.53.

2. In § 172.101, The Hazardous Materials Table is amended by removing those entries under [REMOVE] and adding entries under [ADD] to read as follows:

§ 172.101 Purpose and use of the hazardous materials table.

* * * * *

§ 172.101 HAZARDOUS MATERIALS TABLE

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or division	Identification Numbers	PG	Label Codes	Special Provisions (§ 172.102)	(8) Packaging (§ 173.***)			(9) Quantity limitations (see §§ 173.27 and 175.75)		(10) Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo air-craft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
	[**REMOVE**]												
	*		*		*		*		*		*		*
	Calcium hypochlorite, hydrated or Calcium hypochlorite, hydrated mixtures, with not less than 5.5 percent but not more than 16 percent water	5.1	UN2880	II	5.1	165, IB8, IP2, IP4, IP13, W9	152	212	240	5 kg	25 kg	D	4, 25, 48, 52, 56, 58, 69, 142.
	*		*		*		*		*		*		*
G	Tellurium compound, solid, n.o.s.	6.1	UN3284	I	6.1	IB7, IP1, T6, TP33	None	211	242	5 kg	50 kg	B	……
	……	…….	…….	II	6.1	IB8, IP2, IP4, T3, TP33	153	212	242	25 kg	100 kg	B	……
	……	……..	……..	III	6.1	IB8, IP3, T1, TP33	153	213	240	100 kg	200 kg	A	……
	*		*		*		*		*		*		*
	[**ADD**]												
	*		*		*		*		*		*		*
	Calcium hypochlorite, hydrated or Calcium hypochlorite, hydrated mixtures, with not less than 5.5 percent but not more than 16 percent water	5.1	UN2880	II	5.1	165, IB8, IP2, IP4, IP13, W9	152	212	240	5 kg	25 kg	D	4, 25, 48, 52, 56, 58, 69, 142.
	……	……..	……..	III	5.1	165, 171, IB8, IP4, IP13, W9	152	213	240	25 kg	100 kg	D	4, 25, 48, 52, 56, 58, 69, 142.
	*		*		*		*		*		*		*
G	Tellurium compound, n.o.s.	6.1	UN3284	I	6.1	IB7, IP1, T6, TP33	None	211	242	5 kg	50 kg	B	……
	……	…….	…….	II	6.1	IB8, IP2, IP4, T3, TP33	153	212	242	25 kg	100 kg	B	……

……	……..	……..	III	6.1	IB8, IP3, T1, TP33	153	213	240	100 kg	200 kg	A	……
	*	*		*		*		*		*		*

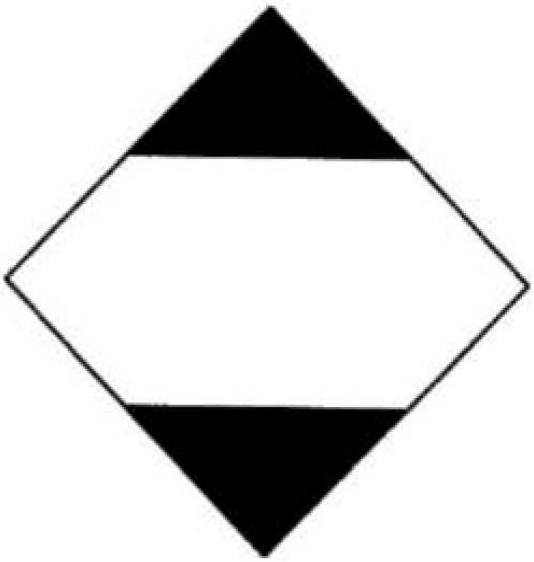
* * * * *

3. Section 172.315 is revised to read as follows:

§ 172.315 Limited quantities.

(a) Modes other than air transport. Except for an article or substance of Class 7 prepared in accordance with subpart I of part 173, a package prepared in accordance with applicable limited quantity requirements in part 173 of this subchapter and offered for transportation by a mode other than air must display the limited quantity marking shown in paragraph (a)(1) of this section. A package displaying this mark is not subject to the marking requirements of § 172.301 of this subpart unless the limited quantity package also contains a hazardous substance or a hazardous waste. Required markings need not be duplicated if already marked as prescribed elsewhere in this subpart. As an alternative, a packaging may display the limited quantity "Y" mark shown in paragraph (b) of this section if the package conforms to authorized substance and article provisions and the inner and outer package quantity limits in § 173.27(f) of this subchapter.

(1) Marking description. The top and bottom portions of the square-on-point and the border forming the square-on-point must be black and the center white or of a suitable contrasting background as follows:

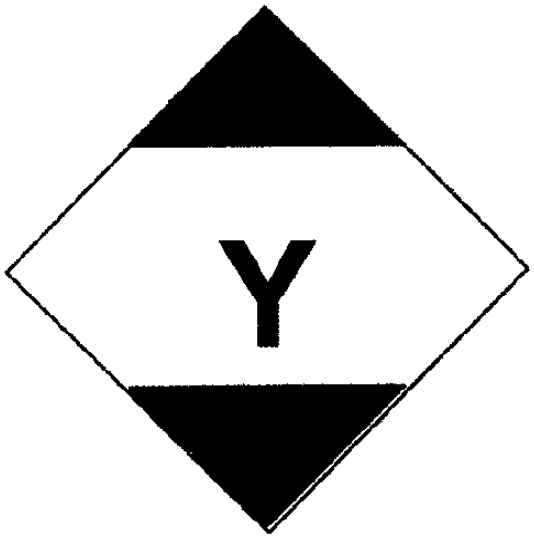


(2) The square-on-point must be durable, legible and of a size relative to the packaging, readily visible, and must be applied on at least one side or one end of the outer packaging. The width of the border forming the square-on-point must be at least 2 mm and the minimum dimension of each side must be 100 mm unless the packaging size requires a reduced size marking that must be no less than 50 mm on each side. When intended for transportation by vessel, a cargo transport unit (see § 176.2 of this subchapter) containing packages of hazardous materials in only limited quantities must be marked once on each side and once on each end of the exterior of the unit with an identical mark which must have minimum dimensions of 250 mm on each side.

(b) Air transport. Except for an article or substance of Class 7 prepared in accordance with subpart I of part 173, a package prepared in accordance with air-specific limited quantity requirements prescribed in § 173.27 of this subchapter and intended for transportation by air must display the limited quantity mark prescribed in paragraph (b)(1) of this section in addition to other markings required by this subpart (e.g., "RQ", proper shipping name, identification

number, as appropriate). Required markings need not be duplicated if already marked as prescribed elsewhere in this subpart.

(1) Marking Description. The top and bottom portions of the square-on-point and the border forming the square-on-point must be black and the center white or of a suitable contrasting background and the symbol "Y" must be black and located in the center of the square-on-point and be clearly visible as follows:



(2) The square-on-point must be durable, legible and of a size relative to the package as to be readily visible. The square-on-point must be applied on at least one side or one end of the outer packaging. The width of the border forming the square-on-point must be at least 2 mm and the minimum dimension of each side must be 100 mm unless the package size requires a reduced size marking that must be no less than 50 mm on each side.

(c) Limited quantity markings prescribed in paragraphs (a) and (b) of this section may use the packaging itself as the contrasting background for the center portion of the marking if the color sufficiently contrasts so that the black border, top and bottom portions of the square-on-point, and the "Y" symbol, if applicable, are clearly recognizable.

(d) Transitional exceptions. (1) Square-on-point with Identification Number. Except for transportation by aircraft and until December 31, 2013, a package containing a limited quantity may continue to be marked in accordance with the requirements of this section in effect on October 1, 2010 (i.e., square-on-point with Identification Number) as an alternative to the marking required by paragraph (a) of this section. For transportation by aircraft and until December 31, 2012, a package containing a limited quantity may continue to be marked in accordance with the requirements of this section in effect on October 1, 2010 (i.e., square-on-point with Identification Number) as an alternative to the marking required by paragraph (b) of this section.

(2) ORM-D marked packaging. Except for transportation by aircraft and until December 31, 2013, a packaging marked in accordance with § 172.316 of this subpart is not required to be marked with the limited quantity marking required by paragraph (a) of this section. For transportation by aircraft and until December 31, 2012, a packaging marked in accordance with § 172.316 may not be marked with the limited quantity "Y" marking required by paragraph (b) of this section unless it also conforms to § 173.27(f).

PART 173--SHIPPERS--GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

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

Authority: 49 U.S.C. 5101–5128, 44701; 49 CFR 1.45, 1.53.

5. In § 173.27, paragraph (f)(2)(i) is revised and, in paragraph (f)(3), table 3 is revised to read as follows:

§ 173.27 General requirements for transportation by aircraft.

* * * * *

(f) * * *

(2) Limited quantities. (i) Unless otherwise specified in this part, or in subpart C of part 171 of this subchapter, when a limited quantity of hazardous material packaged in a combination packaging is intended for transportation aboard an aircraft, the inner and outer packagings must conform to the quantity limitations set forth in Table 3 of this paragraph. Substances and articles must be authorized for transportation aboard a passenger-carrying aircraft (see Column (9A) of the § 172.101 Hazardous Materials Table of this subchapter). As such, not all unauthorized substances or articles may be indicated in this section. Unless otherwise excepted, packages must be marked and labeled in accordance with this section and any additional requirements in subparts D and E, respectively, of part 172 of this subchapter. Materials or articles not authorized as limited quantity by aircraft are:

(A) Those in Packing Group I;

(B) Class 1 (explosive) material (see § 173.63(b) of this part for exceptions provided to certain articles of Division 1.4S) and Class 7 (radioactive) material (see §§ 173.421 through 173.425 of this part, as applicable, for exceptions provided to certain substances, instruments or articles of Class 7);

(C) Divisions 2.1 (flammable gas) (except Aerosols (UN1950) and Receptacles, small (UN2037) without subsidiary risk) and Division 2.3 (toxic gas);

(D) Divisions 4.1 (self-reactive), 4.2 (spontaneously combustible) (primary or subsidiary risk), and 4.3 (dangerous when wet) (liquids);

(E) Division 5.2 (organic peroxide) (except when contained in a Chemical or First aid kit (UN3316) or Polyester resin kit (UN3269) (Types D, E and F non-temperature controlled only));

(F) Class 8 (corrosive) materials UN2794, UN2795, UN2803, UN2809, 3028; and

(G) All Class 9 (miscellaneous) materials except for UN1941, UN1990, UN2071, UN3077, UN3082, UN3316, UN3334, UN3335, and ID8000.

* * * * *

(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 1	Forbidden (See note)	—	—	See § 173.63(b) of this part for exceptions provided to certain articles of Division 1.4S.
Class 2	—	—	30 kg Gross	Authorized materials: Aerosols (UN1950) in Divisions 2.1 and 2.2, and Receptacles, small (UN2037) in Divisions 2.1 and 2.2 without subsidiary risk and Fuel cells cartridges (UN3478, UN3479), see § 173.230 of this part.
Class 3	PG I: Forbidden	—	—	—
	PG II: 0.5L	PG II: 0.5L	PG II: 1L*	*Maximum net quantity per outer package with corrosive subsidiary risk (e.g., UN2924, UN3286) is 0.5L. For Class 3 base materials as part of a Polyester resin kit (UN3269), see § 173.165 of this part for additional requirements, as applicable. Inner packaging limit for UN3269 base material is 1.0 L. For Fuel cell cartridges containing flammable liquids (UN3473), see § 173.230 of this part.

	PG III: 2.5L* *Corrosive subsidiary risk (e.g., UN2924) or toxic (e.g., UN1992) is 1L	PG III: 5.0L* *Corrosive subsidiary risk (e.g., UN2924) or toxic (e.g., UN1992) is 1L	PG III: 10L*	*Maximum net quantity per outer package with corrosive subsidiary risk (e.g., UN2924) is 1L and toxic subsidiary risk (e.g., UN1992) is 2L. For Class 3 base materials as part of a Polyester resin kit (UN3269), see § 173.165 of this part for additional requirements, as applicable. Inner packaging limit for UN3269 base material is 1.0 L
Division 4.1 (does not include self-reactive material)	PG I: Forbidden	—	—	—
	PG II: 0.5 kg	PG II: 0.5 kg	PG II: 5 kg*	*Maximum net quantity per outer package with toxic subsidiary risk (e.g., UN3179) is 1 kg.
	PG III: 1 kg	PG III: 1 kg	PG III: 10 kg*	*Maximum net quantity per outer package with corrosive subsidiary risk (e.g., UN3180) is 5 kg.
Division 4.2 (Primary or subsidiary)	Forbidden*	—	25 kg (net mass)*	*Until December 31, 2012, Charcoal (NA1361), PG III, may be transported as a limited quantity and may be renamed Consumer commodity and reclassed ORM-D-AIR, if eligible.
Division 4.3 (solid material only)	PG I solids and all liquids regardless of Packing Group: Forbidden	—	—	—
	PG II: 0.5 kg	PG II: 0.5 kg	PG II: 5 kg*	*Maximum net quantity per outer package with toxic subsidiary risk (e.g., UN3134) is 1 kg. For fuel cell cartridges containing water reactive substances (UN3476), see § 173.230 of this part.
	PG III: 1 kg	PG III: 1 kg	PG III: 10 kg*	*Maximum net quantity per outer package with corrosive or flammable subsidiary risk (e.g., UN3131 or UN3132, respectively) is 5 kg.
Division 5.1 (Liquid or solid material)	PG I: Forbidden	—	—	—
Division 5.1 (liquid material)	PG II: 0.1L	PG II: 0.1L	PG II: 0.5L	
	PG III: 0.5L	PGIII: 0.5L	PG III: 1.0L	
Division 5.1 (solid material)	PG II: 0.5 kg	PG II: 0.5 kg	PG II: 2.5 kg*	*Maximum net quantity per outer package with toxic subsidiary risk (e.g., UN3087) is 1 kg.
	PG III: 1.0 kg	PG III: 1.0 kg	PG III: 10 kg*	*Maximum net quantity per outer

				package with corrosive subsidiary risk (e.g., UN3085) is 1 kg.
Division 5.2 (liquid material)	30 mL	30 mL	1 kg	Authorized materials: Types D, E and F are authorized only as part of a Chemical or First aid kit (UN3316) packaged in accordance with § 173.161 of this part or a Polyester resin kit (UN3269) packaged in accordance with § 173.165 of this part. See §§ 173.161 and 173.165, as applicable, for additional requirements.
Division 5.2 (solid material)	100g	100g	1 kg	Solid activators of Types D, E and F are limited to 100 g per inner packaging for UN3316 and UN3269. See §§ 173.161 and 173.165, as applicable, for additional requirements.
Division 6.1	PG I (Inhalation or otherwise): Forbidden	—	—	—
Division 6.1 (liquid material)	PG II: 0.1L	PG II: 0.1L	PG II: 1.0L*	*Maximum net quantity per outer package with corrosive subsidiary risk (e.g., UN3289) is 0.5L.
	PG III: 0.5L	PGIII: 0.5L	PG III: 2.0L	
Division 6.1 (solid material)	PG II: 0.5 kg	PG II: 0.5 kg	PG II: 1.0 kg	
	PG III: 1.0 kg	PG III: 1.0 kg	PG III: 10 kg	
Class 7	Forbidden (See note)	—	—	See §§ 173.421 through 173.425 of this part, as applicable, for exceptions provided to certain substances, instruments or articles of Class 7.
Class 8	PG I: Forbidden	—	—	—
Class 8 (liquid material)	PG II: 0.1L	PG II: 0.1L	PG II: 0.5L	For "Fuel cell cartridges containing corrosive substances" (UN3477), see § 173.230 of this part.
	PG III: 0.5L	PGIII: 0.5L	PG III: 1.0L	
Class 8 (solid material)	PG II: 0.5 kg	PG II: 0.5 kg	PG II: 5.0 kg*	*Maximum net quantity per outer package for UN2430 is 1.0 kg. UN2794, UN2795, UN2803, UN2809, UN3028 are not authorized as limited quantity.
	PG III: 1.0 kg	PG III: 1.0 kg	PG III: 5.0 kg	
Class 9 (liquid material)	30 mL (UN3316); 5.0L (UN1941, UN1990, UN3082)	30 mL (UN3316); 5.0L (UN1941, UN1990, UN3082)	1 kg (UN3316); 30 kg gross (all other authorized Class 9 material)	Authorized materials: UN1941, UN1990, UN2071, UN3077, UN3082, UN3334, and UN3335. Additionally, Consumer commodity (ID8000) in

Class 9 (solid material)	100 g (UN3316); 5.0 kg (UN2071, UN3077)	100 g (UN3316); 5.0 kg (UN2071, UN3077)	1 kg (UN3316); 30 kg gross (all other authorized Class 9 material)	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.

* * * * *

6. In § 173.124, the paragraph (b)(2) heading is revised to read as follows:

§ 173.124 Class 4, Divisions 4.1, 4.2 and 4.3—Definitions.

* * * * *

(b) * * *

(2) Self-heating material. * * *

* * * * *

7. In § 173.151, in paragraph (d), the third sentence is revised to read as follows:

§ 173.151 Exceptions for Class 4.

* * * * *

(d) * * * 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. * * *

* * * * *

8. In § 173.156, paragraph (b)(1) introductory text is revised to read 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 are not required for packages of limited quantity materials or, until December 31, 2013, materials classed as ORM–D when—

* * * * *

9. In § 173.306:

a. In paragraph (a) introductory text, the second sentence is revised.

b. In paragraph (a)(1), the second sentence is revised.

c. In paragraph (a)(3) introductory text, the second sentence is revised.

d. In paragraph (a)(5) introductory text, the second sentence is revised.

e. In paragraph (b) introductory text, the third sentence is revised.

f. In paragraph (b) introductory text, the fifth sentence is revised.

g. Paragraph (h)(2)(i) is revised.

The revisions read as follows:

§ 173.306 Limited quantities of compressed gases.

(a) * * * For transportation by aircraft, the package must conform to the applicable requirements of § 173.27 of this subchapter and only packages of hazardous materials authorized aboard passenger-carrying aircraft may be transported as a limited quantity. * * *

(1) * * * Additional exceptions for certain compressed gases in limited quantities and the ORM-D hazard class are provided in paragraph (i) of this section.

* * * * *

(3) * * * Additional exceptions for certain compressed gases in limited quantities and the ORM-D hazard class are provided in paragraph (i) of this section.

* * * * *

(5) * * * Additional exceptions for certain compressed gases in limited quantities and the ORM-D hazard class are provided in paragraph (i) of this section.

* * * * *

(b) * * * For transportation by aircraft, the package must conform to the applicable requirements of § 173.27 of this subchapter and only packages of hazardous materials authorized aboard passenger-carrying aircraft may be transported as a limited quantity. * * * Additional exceptions for certain compressed gases in limited quantities and the ORM-D hazard class are provided in paragraph (i) of this section.

* * * * *

(h) * * *

(2) Exceptions. (i) For other than transportation by aircraft, exceptions for certain compressed gases in limited quantities and the ORM-D hazard class are provided in paragraph (i) of this section.

* * * * *

10. In § 173.311, the second sentence is revised to read as follows:

§ 173.311 Metal hydride storage systems.

* * * Metal hydride storage systems must be designed, constructed, initially inspected and tested in accordance with ISO 16111 (IBR, see § 171.7 of this subchapter) as authorized under § 178.71(m) of this subchapter. * * *

PART 175—CARRIAGE BY AIRCRAFT

11. The authority citation for part 175 continues to read as follows:

Authority: 49 U.S.C. 5101-5128; 44701; 49 CFR 1.45 and 1.53.

12. In § 175.10, paragraph (a)(19) is revised to read as follows:

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

(a) * * *

(19) Fuel cells used to power portable electronic devices (e.g., cameras, cellular phones, laptop computers and camcorders) and spare fuel cell cartridges when transported personal use under the following conditions:

(i) Fuel cells and fuel cell cartridges may contain only Division 2.1 liquefied flammable gas, or hydrogen in a metal hydride, Class 3 flammable liquid (including methanol), Division 4.3 water-reactive material, or Class 8 corrosive material;

(ii) The quantity of fuel in any fuel cell or fuel cell cartridge may not exceed:

(A) 200 mL (6.76 ounces) for liquids;

(B) 120 mL (4 fluid ounces) for liquefied gases in non-metallic fuel cell cartridges, or 200 mL (6.76 ounces) for liquefied gases in metal fuel cell cartridges;

(C) 200 g (7 ounces) for solids; or

(D) For hydrogen in metal hydride, the fuel cell cartridges must have a water capacity of 120 mL (4 fluid ounces) or less;

(iii) No more than two spare fuel cell cartridges may be carried by a passenger or crew member as follows:

(A) Fuel cell cartridges containing Class 3 flammable liquid (including methanol) and Class 8 corrosive material in carry-on or checked baggage; and

(B) Division 2.1 liquefied flammable gas or hydrogen in a metal hydride and Division 4.3 water-reactive material in carry-on baggage only;

(iv) Fuel cells containing fuel are permitted in carry-on baggage only;

(v) Fuel cell cartridges containing hydrogen in a metal hydride must meet the requirements in § 173.230(d) of this subchapter;

(vi) Refueling of a fuel cell aboard an aircraft is not permitted except that the installation of a spare cartridge is allowed;

(vii) Each fuel cell and fuel cell cartridge must conform to IEC/PAS 62282–6–1 (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/PAS 62282–6–1 (IBR, see §171.7 of this subchapter). Fuel cells whose sole function is to charge a battery in the device are not permitted; and

(ix) Fuel cells must be of a type that will not charge batteries when the consumer electronic device is not in use and must be durably marked by the manufacturer with the wording: "APPROVED FOR CARRIAGE IN AIRCRAFT CABIN ONLY" to indicate that the fuel cell meets this requirement.

* * * * *

13. Section 175.75 is revised to read as follows:

§ 175.75 Quantity limitations and cargo location.

(a) No person may carry on an aircraft a hazardous material except as permitted by this subchapter.

(b) Except as otherwise provided in this subchapter, no person may carry a hazardous material in the cabin of a passenger-carrying aircraft or on the flight deck of any aircraft, and the hazardous material must be located in a place that is inaccessible to persons other than crew members. Hazardous materials may be carried in a main deck cargo compartment of a passenger aircraft provided that the compartment is inaccessible to passengers and that it meets all certification requirements for a Class B aircraft cargo compartment in 14 CFR 25.857(b) or for a Class C aircraft cargo compartment in 14 CFR 25.857(c). A package bearing a "KEEP AWAY FROM HEAT" handling marking must be protected from direct sunshine and stored in a cool and ventilated place, away from sources of heat.

(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, ORM–D-AIR and Limited or Excepted Quantity material.

(d) For the purposes of this section—

(1) Accessible means, on passenger-carrying or cargo-only aircraft that each package is loaded where a crew member or other authorized person can access, handle, and, when size and weight permit, separate such packages from other cargo during flight, including a freight container in an accessible cargo compartment when packages are loaded in an accessible manner.

Additionally, a package is considered accessible when transported on a cargo-only aircraft if it is:

(i) In a cargo compartment certified by FAA as a Class C aircraft cargo compartment as defined in 14 CFR 25.857(c); or

(ii) In an FAA-certified freight container that has an approved fire or smoke detection system and fire suppression system equivalent to that required by the certification requirements for a Class C aircraft cargo compartment.

(2) Inaccessible means all other configurations to include packages loaded where a crew member or other authorized person cannot access, handle, and, when size and weight permit, separate such packages from other cargo during flight, including a freight container in an accessible cargo compartment when packages are loaded in an inaccessible manner.

(e) For transport aboard cargo-only aircraft, the requirements of paragraphs (c) and (d) of this section do not apply to the following hazardous materials:

(1) Class 3, PG III (unless the substance is also labeled CORROSIVE), Class 6 (unless the substance is also labeled FLAMMABLE LIQUID (PG II and III only)), Division 6.2, Class 7 (unless the hazardous material meets the definition of another hazard class), Class 9, and those marked as ORM–D-AIR, Limited Quantity or Excepted Quantity material.

(2) Packages of hazardous materials transported aboard a cargo aircraft, when other means of transportation are impracticable or not available, in accordance with procedures approved in writing by the FAA Regional or Field Security Office in the region where the operator is located.

(3) Packages of hazardous materials carried on small, single pilot, cargo aircraft if:

(i) No person is carried on the aircraft other than the pilot, an FAA inspector, the shipper or consignee of the material, a representative of the shipper or consignee so designated in writing, or a person necessary for handling the material;

(ii) The pilot is provided with written instructions on the characteristics and proper handling of the materials; and

(iii) Whenever a change of pilots occurs while the material is on board, the new pilot is briefed under a hand-to-hand signature service provided by the operator of the aircraft.

(f) At a minimum, quantity limits and loading instructions in the following quantity and loading table must be followed to maintain acceptable quantity and loading between packages containing hazardous materials. The quantity and loading table is as follows:

QUANTITY AND LOADING TABLE

Applicability	Forbidden	Quantity Limitation: 25 kg net weight of hazardous material plus 75 kg net weight of Division 2.2 (non-flammable compressed gas) per cargo compartment	No limit
Passenger-carrying aircraft	Cargo Aircraft Only labeled packages	Inaccessible	Accessible
Cargo-only aircraft—Packages authorized aboard a passenger-carrying aircraft	Not applicable	Inaccessible (Note 1)	Accessible (Note 2)
Cargo-only aircraft—Packages not authorized aboard a passenger-carrying aircraft and displaying a Cargo Aircraft Only label	Inaccessible (Note 1)	Not applicable	Accessible (Note 2)

Note 1: The following materials are not subject to this loading restriction—
a. Class 3, PG III (unless the substance is also labeled CORROSIVE).
b. Class 6 (unless the substance is also labeled FLAMMABLE LIQUID (PG II and III only)).
c. Class 7 (unless the hazardous material meets the definition of another hazard class).
d. Class 9, ORM–D-AIR and Limited Quantity or Excepted Quantity material.
Note 2: Aboard cargo-only aircraft, packages required to be loaded in a position that is considered to be accessible include those loaded in a Class C cargo compartment.

PART 176—CARRIAGE BY VESSEL

14. The authority citation for part 176 continues to read as follows:

Authority: 49 U.S.C. 5101-5128; 49 CFR 1.53.

15. In § 176.905, paragraph (j) is revised to read as follows:

§ 176.905 Stowage of motor vehicles or mechanical equipment.

* * * * *

(j) Except as provided in § 173.220(f) of this subchapter, the provisions of this subchapter do not apply to items of equipment such as fire extinguishers, compressed gas accumulators, airbag inflators and the like which are installed in the vehicle or mechanical equipment if they are necessary for the operation of the vehicle or equipment, or for the safety of its operator or passengers.

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Cynthia L. Quarterman
Administrator

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