DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

49 CFR Parts 171, 172, 173, 176, 177, and 178

[Docket No. HM-166N; Amdt. Nos. 171-73, 172-81, 173-165, 176-16, 177-59, and 178-76]

Shipment of Hazardous Materials; Miscellaneous Amendments

AGENCY: Materials Transportation Bureau, Research and Special Programs Administration, DOT.

ACTION: Final rule.

SUMMARY: This action is being taken to incorporate into the Department's Hazardous Materials Regulations a number of changes based on rulemaking petitions from industry and on proposals from within the Department. This action is necessary to update the regulations, eliminate the need for filing of reports with MTB and to reduce MTB's backlog of rulemaking petitions.

EFFECTIVE DATE: August 4, 1983. However, compliance with the regulations as amended herein, is authorized immediately.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the **Federal Register** as of August 4, 1983.

FOR FURTHER INFORMATION CONTACT: Darrell L. Raines, Chief, Exemptions and Regulations Termination Branch, Office of Hazardous Materials Regulation, Materials Transportation Bureau, Washington, D.C. 20590; (202-472-2726).

SUPPLEMENTARY INFORMATION: On August 2, 1982, the MTB published a Notice of Proposed Rulemaking, Docket No. HM-166N; Notice No. 82-7 (47 FR 33288), which proposed a number of miscellaneous amendments to the Hazardous Materials Regulations. Notice No. 82-7 included a brief statement regarding each proposal and invited public comment prior to the closing date of October 1, 1982. Based on comments received on the notice, the proposals are being incorporated with some editorial changes as amendments to the Hazardous Materials Regulations.

The proposed change to update the reference to the 1981 issue of the Association of American Railroads Specification for Tank Cars in 171.(d)(2) has been corrected to read .982. Reference to certain ASTM Standards listed in § 173.115 (d) and (e) have been updated and included in § 171.7(d)(5).

The definition of "Overpack" in § 171.8 has been added and revised to clarify that an overpack does not include a freight container nor may it be used for the overpacking of a single packaging to make a package.

In § 171.12, paragraph (f) has been added to provide for carriage by vessel between points in a State or between States. "State" as defined in 49 U.S.C. 1802 means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, or Guam. These words are necessary to remove the application of this section to solely import/export shipments when all or a portion of a shipment is by vessel.

A new paragraph (c)(12) has been added to § 172.101 to authorize the use of a tentative shipping name for a material for which the hazard class is to be determined by testing or a material that is a hazardous waste. Proposed paragraph (e) of § 172.202 has been reworded and includes a reference to § 171.11 which should preclude confusion. The notice also proposed to add a paragraph (f) to § 172.202 to prohibit a shipper from offering for transportation as a hazardous material a material that does not meet the definition of a hazardous material or is otherwise authorized by 49 CFR Parts 100-177 to be shipped as a hazardous material. However, in view of the comments received and upon further consideration the proposed wording has been revised and placed in § 172.101(c)(12).

The proposed changes to Uranium hexafluoride, fissile and Uranium hexafluoride, low specific activity have been withdrawn because of recent changes published under Docket No. HM-169 (48 FR 10218). Also, the RQ figures for the entries "Phosphorus pentasulfide" and "Resorcinol" have been corrected. A new entry "Samples" has been added to the § 172.101 Table and cross references the § 172.101(c)(12) change.

The proposal to require both the Oxidizer and Corrosive label for Nitrating acid, mixtures has been changed by making two entries as listed in the International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO) which are based on the United Nations Recommendations for the Transport of Dangerous Goods. One Nitrating acid, mixture entry is for mixtures containing no more than 50 percent nitric acid and requires only the Corrosive label; the entry for Nitrating acid, mixtures containing more than 50 percent nitric acid requires both Corrosive and Oxidizer labels.

Paragraphs § 172.101 (b)(2) and (b)(3) have been revised to be consistent with § 172.200(b). Prior to this revision, § 172.101 (b)(2) and (b)(3) did not authorize the transportation of certain materials classed as ORM-A, B or C by a mode of transport other than by aircraft or vessel. Therefore, the material could not be transported to or from a port or air terminal. Paragraph 172.101(c)(12) has been added as a provision for shipping wastes that may not meet the definition of a hazardous material, and for shipping a sample of a material to determine its hazard class.

In § 172.204, paragraph (a) and the Note therein are revised to authorize use of the certifications required by ICAO and the International Maritime Dangerous Goods Code (IMDG Code) by authorizing the use of the language contained in the certification (declaration) in Section 13.6.4 of the Recommendations of the United Nations Committee of Experts on the Transport of Dangerous Goods (UN Recommendations, 1981 Edition). MTB believes that by authorizing use of the language contained in the UN Recommendations shippers can preprint shipping documents and indicate all modes of transport that they may use, then delete any mode of transport not used for a specific shipment. This should permit MTB to remove from the regulations the alternative certification contained in § 172.204(c)(1) in a future rulemaking. The MTB recognizes that the IMDG Code specifies the word "packaged" in place of the word "packed" in the certification statement in paragraph (a)(2) of this section. In this case, MTB will not consider the substitution of the word "packaged" in this certification to constitute a violation of the provisions of these regulations.

In § 172.400(b)(3), a sentence has been added to require at least one label on each unitized or palletized break bulk package of military ammunition and explosive offered for transportation by cargo vessel under certain conditions.

In § 173.5, the words "Formulated liquid and solid pesticides" has been changed to read "Formulated agricultural chemicals" in order to describe the products that are involved in less-than-case-lot quantities. The use of the words "disconnect valves" in paragraph (b) has been changed to read "disconnect device(s)" because dry disconnect couplings are now available and they effectively provide the same protection as dry disconnect valves.

Proposed paragraph (a)(5) has been withdrawn because of a recent change to § 177.841(e) in Docket No. HM-139E. Also, proposed § 173.9 has been changed to § 173.5 because of Docket HM-169.

A new paragraph (d) had been added to § 173.23 to eliminate the need for mandatory remarking until the next scheduled retest, of those spherical steel pressure vessels manufactured and marked DOT-E 16616.

Proposed § 173.25 has been changed: (1) By requiring each overpack to be marked with the identification number, when required, (2) to include the use of the orientation marking "This End Up" or "This Side Up," and (3) to revise paragraph (4) to authorize optional use of the ICAO approved certification statement so as to require only a single certification to be used for air and surface shipments.

The proposed addition of paragraph (5) in § 173.32(a) remains unchanged although two commenters stated that they would prefer to see the Specification 51 portable tank added to each appropriate commodity listing instead of in § 173.32. Consideration was given to the amendment of each appropriate commodity listing during the preparation of the notice of proposed rulemaking. However, that approach was discarded in favor of a single entry in order to eliminate as much repetition and duplication as possible.

An editorial change has been made in § 173.33(b)(2) to clearly indicate that the use of MC-307 type of pressure relief devices and fusible devices on MC-304 cargo tanks is optional, not mandatory.

Section 173.115(b)(2) is amended to specify that an aqueous solution containing 24 percent or less alcohol by volume and 50 percent or more of water is not subject to the regulations even when transported in bulk packagings.

Because of the deletion of the word "oil" and the addition of the word "casing" for the two entries "Charged well casing jet perforating gun," §§ 173.53, 173.80, and 173.110 have been revised accordingly.

One commenter stated that § 173.245(b) and § 173.245b, both in its present form and as proposed in the notice, is unclear concerning its application to a material which is corrosive only to steel, which meets the definition of either an ORM-A, or ORM-B and which is neither a hazardous substance nor a hazardous waste according to § 171.8. Also, the commenter stated that a similar problem exists with a material which is corrosive only to steel, which meets the Combustible liquid definition and which is neither a hazardous substance nor a hazardous waste according to § 171.8. The MTB agrees with the commenter and has revised § 173.245(b) and § 173.245b, accordingly.

Two commenters objected to the immediate regulation of Hypochlorite solution *containing more than 7% available chlorine by weight (RQ-100/45.4)*, in tank motor vehicles, without providing a "grandfather" provision to authorize the continued use of those nonspecification tanks which were being used prior to these amendments. The MTB agrees that to prohibit the use of those nonspecification tanks which are now in service would create a severe hardship. Therefore, MTB has "grandfathered" the use of those tanks that were being used prior to January 1, 1983. Also, the proposed revision of paragraph (g) has been removed because it has been determined to be inconsistent with the finding that hypochlorite solution is corrosive and fully regulated when transported by cargo tank regardless of whether it is transported in a reportable quantity as a hazardous substance.

The amendment adding "Blasting agents" to the Table in § 174.25 was accomplished under Docket No. HM-56 (47 FR 43062) on September 30, 1982.

In § 178.51-19, paragraph (c)(5) has been added. Prior to Docket No. HM-139-D (46 FR 58693) the same wording was in paragraph (c)(3) but was inadvertently omitted during the rewrite of § 178.51-19.

In addition to the proposed change to delete the requirement for makers of certain fiberboard boxes to send a copy of the "special tests report" to the Associate Director for HMR, the MTB has also eliminated the need for manufacturers to keep a copy of the report on file for one year.

The Materials Transportation Bureau has determined that this document will not result in a "major rule" under the terms of Executive Order 12291 or a significant regulation under DOT's regulatory policy and procedures (44 FR 11034), nor require an environmental impact statement under the National Environmental Policy Act (49 U.S.C. 4321 et seq.).

Based on limited information available concerning size and nature of entities likely to be affected by this amendment, I certify that this amendment will not have a significant economic impact on a substantial number of small entities because the overall economic impact of this amendment will be minimal. A regulatory evaluation and environmental assessment are available for review in the docket.

List of Subjects

49 CFR Part 171

Hazardous materials transportation, Incorporation by reference.

49 CFR Part 172

Hazardous materials transportation Labeling, Packaging and containers.

49 CFR Part 173

Hazardous materials transportation, Packaging and containers.

49 CFR Part 176

Hazardous materials transporatation, Maritime carriers.

49 CFR Part 177

Hazardous materials transportation, Motor carriers.

49 CFR Part 178

Hazardous materials transportation, Packaging and containers.

In consideration of the foregoing, 49 CFR Parts 171, 172, 173, 176, 177, and 178 are amended as follows:

PART 171—GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS

1. In § 171.7, paragraph (d)(2) is revised and paragraph (d)(5) is amended by adding subparagraphs (xiii) through (xviii) to read as follows:

§ 171.7 Matter incorporated by reference.

* * * * *

(d) * * *

(2) AAR Specifications for Tank Cars means the 1982 edition of the "Association of American Railroads Specifications for Tank Cars, Specification M-1002."

* * * * *

(5) * * *

(xiii) ASTM D56-79 is titled "Standard Method of Test for Flash Point by Tag Closed Tester," 1979 edition.

(xiv) ASTM D3278-78 is titled "Standard Methods of Test for Flash Point of Liquids by Setaflash Closed Tester," 1978 edition.

(xv) ASTM D93-80 is titled "Standard Method of Test for Flash Point by Pensky-Martens Closed Tester," 1980 edition.

(xvi) ASTM 88-56 is titled "Standard Method of Test for Saybolt Viscosity," 1956 edition (reapproved 1968).

(xvii) ASTM D2161-79 is titled "Standard Method for Conversion of Kinematic Viscosity to Saybolt Universal Viscosity or to Saybolt Furol Viscosity," 1979 edition.

(xviii) ASTM D445-79 is titled "Standard Test Method for Kinematic Viscosity of Transparent and Opaque

Liquids (and the Calculation of Dynamic Viscosity," 1979 edition.

* * * * *

2. In § 171.8 the definition of overpack is revised to read as follows:

§ 171.8 Definitions and abbreviations.

* * * * *

"Overpack" except when referenced to a packaging specified in Part 178 of this subchapter, means an enclosure that is used by a single consignor to provide protection or convenience in handling of a package or to consolidate two or more packages. "Overpack" does not include a freight container.

* * * * *

3. In § 171.12, paragraph (f) is added to read as follows:

§ 171.12 Import and export shipments.

* * * * *

(f) The provisions of paragraphs (b) and (d) of this section also apply to transportation, a portion of which includes transportation by vessel, between points in a State or between States.

PART 172—HAZARDOUS MATERIALS TABLES AND HAZARDOUS MATERIALS COMMUNICATIONS REGULATIONS

4. In § 172.101, preceding the table, the introductory text of paragraphs (b)(2) and (b)(3) are revised and paragraph (c)(12) is added to read as follows:

§ 172.101 Purpose and use of the hazardous materials table.

* * * * *

(b) * * *

(2) A letter "A" restricts the application of this subchapter to materials offered or intended for transportation by aircraft unless—

* * * * *

(3) A letter "W" restricts the application of this subchapter to materials offered or intended for transportation by vessel unless—

* * * * *

(c) * * *

(12) A material for which the hazard class is to be determined by testing or a material that is a hazardous waste may be assigned a tentative shipping name, hazard class and identification number, based on the shipper's tentative determination according to—

(i) Defining criteria in this subchapter;

(ii) The hazard precedence prescribed in § 173.2 of this subchapter; and

(iii) The shipper's knowledge of the material.

This paragraph does not apply to a material subject to or prohibited by §§ 173.21, 173.51, 173.86(d), 178.86(e)(1), and 173.114a(g)(2) of this subchapter.

* * * * *

5. In § 172.101, the Hazardous Materials Table is amended as follows:

§ 172.101 Hazardous Materials Table

+/E/A/W	Hazardous materials descriptions and proper shipping names	Hazard class	Identification number	Label(s) required (if not excepted)	Packaging		Maximum net quantity in one package		Water shipments		Other requirements
					Exceptions	Specific requirements	Passenger carrying aircraft or railcar	Cargo only aircraft	Cargo vessel	Passenger vessel	
(1)	(2)	(3)	3(a)	(4)	5(a)	5(b)	6(a)	6(b)	7(a)	7(b)	7(c)
	* * *										
	DELETE										
	* * *										
EAW	Ammonium hydroxide (*containing less than 12% ammonia*) (*RQ5000/2270*).	ORM-A	NA2672	None	173.505	173.510	10 gallons	55 gallons	1	1	
	1-Bromo-2-nitrobenzene (unstable at 59° C).	Forbidden									
	Charged oil well jet perforating gun (*total explosive contents in guns 20 pounds or more per motor vehicle*).	Class A explosive		Explosive A	None	173.53 173.80	Forbidden	Forbidden			Forbidden.
	Charged oil well jet perforating gun (*total explosive contents in guns not exceeding 20 pounds per motor vehicle or special offshore down hole tool pallet*).	Class C explosive		Explosive C	None	173.53 173.110	Forbidden	Forbidden	1,2	5	Forbidden.
	Ethyl phosphonous dichloride, anhydrous.	Corrosive material	NA2845	Corrosive	173.244	173.245 173.245a	1 quart	1 quart	1	4	
	Methyl phosphonous dichloride.	Corrosive material	NA2845	Corrosive	173.244	173.245 173.245a	1 quart	1 quart	1	4	
E	Nitrating acid (*RQ-1000/454*).	Oxidizer	NA1796	Oxidizer	None	173.267	Forbidden	1 quart	1	5	Segregation same as for corrosive materials.
E	Phosphorus pentasulfide (RQ-1000/45.4).	Flammable solid	UN1340	Flammable solid and Dangerous when wet.	None	173.225	Forbidden	11 pounds	1,2	1,2	Separate from oxidizing materials.
E	Phosphorus trichloride (*RQ-5000/2270*).	Corrosive material	UN1809	Corrosive	None	§ 173.271	Forbidden	1 quart	1	1	Keep dry. Glass carboys not permitted on passenger vessels.
E	Resorcinol (RQ-5000/2270).	ORM-E	UN2876	None	None	173.510	No limit	No limit	1,2	1,2	
E	Sodium methylate, dry (*RQ-1000/454*).	Flammable solid	UN1431	Flammable solid	173.153	173.154	25 pounds	100 pounds	1,2	1	

* 'E/ A/W	Hazardous materials descriptions and proper shipping names	Hazard class	Identification number	Label(s) required (if not excepted)	Packaging		Maximum net quantity in one package		Water shipments		
					Exceptions	Specific requirements	Passenger carrying aircraft of railcar	Cargo only aircraft	Cargo vessel	Passenger vessel	Other requirements
(1)	(2)	(3)	3(a)	(4)	5(a)	5(b)	6(a)	6(b)	7(a)	7(b)	7(c)
	* * *										
	ADD										
	* * *										
E,A,W	Ammonium hydroxide (*containing less than 12% ammonia*) (*RQ-1000/454*).	ORM-A	NA2672	None	173.505	173.510	10 gallons	55 gallons	1	1	
	Benzenethiol. See Phenyl mercaptan.										
	1-Bromo-3-nitrobenzene (unstable at 56 C).	Forbidden									
	Charged well casing jet perforating gun (*total explosive contents in guns 20 pounds or more per motor vehicle*)	Class A explosive		Explosive A	None	173.53 173.80	Forbidden	Forbidden			Forbidden
	Charged well casing jet perforating gun (*total explosive contents in guns not exceeding 20 pounds per motor vehicle or special offshore down hole tool pallet*).	Class C explosive		Explosive C	None	173.53 173.110	Forbidden	Forbidden	1,2	5	
	Chloropicrin in mixture, flammable (*pressure not exceeding 14.7 psia, flash point below 100 °F*).	Poison B	NA2929	Poison and Flammable liquid	None	173.357	Forbidden	Forbidden	1	5	Keep cool
	Ethanol. *See* Ethyl alcohol										
	Ethyl phosphonous dichloride. *See* Pyrophoric liquid, n.o.s.										
	Methyl phosphonic dichloride.	Corrosive	NA9206	Corrosive and Poison	None	173.271	Forbidden	1 quart	1	1	Keep dry. Glass carboys not permitted on passenger vessels
	Methyl phosphonous dichloride. *See* Pyrophoric liquid, n.o.s.										
E	Nitrating acid, mixture (with not more than 50% nitric acid) (*RQ-1000/454*).	Corrosive	UN1796	Corrosive	None	173.267	Forbidden	1 quart	1	5	Stow away from fluorides
E	Nitrating acid, mixture (with more than 50% nitric acid) (*RQ-1000/454*).	Oxidizer	UN1796	Oxidizer and Corrosive	None	173.267	Forbidden	1 quart	1	5	Segregation same as for corrosive material. Stow away from fluorides
	Petroleum oil, n.o.s. *See* Oil.										
	Phenyl mercaptan	Poison B	UN2337	Poison	173.345	173.346	Forbidden	10 gallons	1,2	1	
E	Phosphorus pentasulfide (RQ-100/45.4)	Flammable solid	UN1340	Flammable solid and Dangerous when wet	None	173.225	Forbidden	11 pounds	1,2	1,2	Separate from oxidizing material
E	Phosphorus trichloride (RQ-5000/2270).	Corrosive material	UN1809	Corrosive	None	173.271	Forbidden	1 quart	1	1	Keep dry. Glass carboys not permitted on passenger vessels.
E	Resorcinol (RQ-1000/454).	ORM-E	UN2876	None	None	173.510	No limit	No limit	1,2	1,2	
	Rocket ammunition with empty, inert, or solid loaded projectile.	Class A explosive		Explosive A	None	173.57	Forbidden	Forbidden	6	5	
	Samples. See 172.101(c)(12).										
E	Sodium methylate, dry (*RQ-1000/454*).	Flammable solid	UN1431	Flammable solid and Dangerous when wet.	173.153	173.154	25 pounds	100 pounds	1,2	1	

6. In § 172.202, paragraph (e) is added to read as follows:

§ 172.202 Description of hazardous materials on shipping papers.

* * * * *

(e) Except as provided in §§ 171.11 and 171.12 of this subchapter, a material that is not a hazardous material according to this subchapter may not be described by a basic description on a shipping paper indicating it is a hazardous material.

7. In § 172.203, paragraphs (b) and (c)(2) are revised to read as follows:

§ 172.203 Additional description requirements.

* * * * *

(b) *Limited quantities.* The description for a material offered for transportation as "limited quantity," as authorized by this subchapter, must include the words "Limited Quantity" or "Ltd Qty" following the basic description.

(c) * * *

(2) The letters "RQ" shall be entered on the shipping paper either before or after the basic description required by § 172.202 for each hazardous substance (see definition in § 171.8). For example: "RQ, Cresol, Corrosive material, UN2076; or Adipic acid, ORM-E, NA9077 RQ".

* * * * *

8. In § 172.204, paragraph (a) is revised to read as follows:

§ 172.204 Shipper's certification.

(a) *General.* Except as provided in paragraphs (b) and (c) of this section, each person who offers a hazardous material for transportation shall certify that the material is offered for transportation in accordance with this

subchapter by printing (manually or mechanically) on the shipping paper containing the required shipping description the certification contained in paragraph (a)(1) of this section or the certification (declaration) containing the language contained in paragraph (a)(2) of this section.

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

Note.—In line one of the certification the words "herein-named" may be substituted for the words "above-named".

(2) "I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by [*] according to applicable international and national governmental regulations."

*Additional language indicating the modes of transportation to be used may be inserted at this point in the certification. All modes of transportation may be indicated provided that any mode not applicable to a specific shipment is deleted (lined out).

* * * * *

9. In § 172.332, paragraph (c)(4) is revised to read as follows:

§ 172.332 Identification number markings.

* * * * *

(c) * * *

(4) For a COMBUSTIBLE placard used to display an identification number, the entire background below the white background for the identification number must be white during transportation by rail and may be white during transportation by highway.

* * * * *

10. In § 172.400, paragraph (b)(3) is revised to read as follows:

§ 172.400 General labeling requirements.

* * * * *

(b) * * *

(3) Package or unit of military explosives (including ammunition) shipped by or on behalf of the DOD when in (i) freight containerload, carload or truckload shipments, if loaded and unloaded by the shipper or DOD or (ii) unitized or palletized break bulk shipments by cargo vessel under charter to DOD if at least one required label is displayed on each unitized or palletized load.

* * * * *

11. In § 172.504, Table 2, footnotes 4 and 6 are revised to read as follows:

§ 172.504 General placarding requirements.

* * * * *

Table 2

* * * * *

[4] A FLAMMABLE placard may be used on a cargo tank or portable tank during transportation by highway, rail or water, and on a compartmented tank car containing materials classed as Flammable liquid and Combustible liquid. However, no EMPTY placard may be displayed on an "empty" Combustible liquid tank car.

* * * * *

[6] See § 173.245(b) of this subchapter for authorized exceptions.

* * * * *

PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENT AND PACKAGINGS

12. A new § 173.5 is added to read as follows:

§ 173.5 Agricultural operations.

(a) Formulated agricultural chemicals which are offered for transportation in less-than-case-lot quantities, or when repackaged, are not subject to Subpart D of Part 172 of this subchapter and the outside specification packaging requirements of Part 173 of this subchapter if all of the following conditions are met:

(1) Inside packagings are enclosed in strong outside packagings. Inside liquid packagings are cushioned, if necessary, to prevent breakage and leakage;

(2) Each inside packaging does not exceed 1-gallon capacity for liquids nor 25 pounds for dry materials;

(3) Gross weight of less-than-case or repackaged lots is not over 100 pounds in each vehicle;

(4) Transportation is authorized only by private motor vehicle between a final distribution point and the ultimate point of application, if that distance does not exceed one hundred miles.

(b) Formulated liquid agricultural chemicals in specification packagings of 55 gallons capacity, or less, with closures manifolded to a closed mixing system and equipped with positive dry disconnect devices may be transported by a private motor carrier between a final distribution point and an ultimate point of application or loading aboard an aircraft for aerial application.

(c) See § 173.315(m) pertaining to nurse tanks.

13. In § 173.23, paragraph (d) is added to read as follows:

§ 173.23 Previously authorized packaging.

* * * * *

(d) Cylinders (spheres) manufactured and marked *DOT*-E 6616 prior to January 1, 1983, may be continued in use if marked before or at the time of the next retest with the specification identification "4BA" near the exemption marking.

14. In § 173.25, the title and the entire text are revised to read as follows:

§ 173.25 Authorized packages and overpacks.

(a) Except as provided in paragraph (b) of this section, authorized packages containing hazardous materials may be offered for transportation when tightly packed in a strong overpack, if all of the following conditions are met:

(1) The package meets the requirements of §§ 173.21 and 173.24 of this subchapter.

(2) The overpack is marked with the proper shipping name and identification number, and labeled as required by this subchapter for each hazardous material contained therein unless markings and labels representative of each hazardous material in the overpack are visible.

(3) Each package subject to the orientation marking requirements of § 172.312 of this subchapter is packed in the overpack with its filling holes up and the overpack is marked "THIS END UP" or "THIS SIDE UP" (as appropriate) to indicate the upward position of closures.

(4) The overpack is marked with a statement indicating that the inside (inner) packages comply with prescribed specifications when specification packagings are required, unless specification markings on the inside packages are visible.

(b) In addition to the requirements of paragraph (a) of this section, authorized packages containing corrosive liquids must meet the following conditions:

(1) Packages containing nitric acid (over 40% concentration), perchloric acid, hydrogen peroxide solution (over 52% strength by weight), nitrohydrochloric or nitrohydrochloric acid diluted are not overpacked; and

(2) Other corrosive liquids are not to be overpacked with any other hazardous material, except as follows—

(i) As provided in §§ 173.242, 173.257, 173.258, 173.259, 173.260, 173.261, and 173.286 of this subchapter; and

(ii) Acid or alkaline battery fluid in packages prescribed by §§ 173.257 and 173.258 of this subchapter may be included in overpacks with storage batteries when packed to prevent movement within the overpack.

15. In § 173.32, paragraph (a)(5) is added and paragraph (l)(1) is revised to read as follows:

§ 173.32 Qualification maintenance and use of portable tanks other than specification IM portable tanks.

(a) * * *

(5) Where IM-101 and IM-102 portable tanks are prescribed, Specification 51 portable tanks otherwise conforming to the special commodity requirements of the IM Tank Table may be used.

* * * * *

(i) * * *

(1) Pipe joints shall be threaded, welded or flanged. If threaded pipe is used, the pipe and pipe fittings must not be lighter than (Schedule 80) weight. Nonmalleable metals must not be used in the construction of valves or fittings. Where copper tubing is permitted, joints must be brazed or be of equally strong metal union type. The melting point of brazing material may not be lower than 1000°F. The method of joining tubing must not decrease the strength of the tubing such as by the cutting of threads.

* * * * *

16. In § 173.33, paragraphs (b)(2) and (f)(1) are revised to read as follows:

§ 173.33 Qualification, maintenance, and use of cargo tanks.

* * * * *

(b) * * *

(2) Continued use of existing cargo tanks constructed to Specifications MC 300, MC 302, MC 303, MC 304, MC 305, MC 310, or MC 311 is authorized but new construction may not have commenced after September 1, 1967. Cargo tanks constructed to Specification MC 304 and modified to comply with § 178.342-4 and § 178.342-5 are also authorized.

* * * * *

(f) * * *

(1) Pipe joints shall be threaded, welded or flanged. If threaded pipe is used, the pipe and pipe fittings must not be lighter than Schedule 80 weight. Nonmalleable metals must not be used in the construction of valves or fittings. Where copper tubing is permitted, joints must be brazed or be of equally strong metal union type. The melting point of brazing material must not be lower than 1000°F. The method of joining tubing must not decrease the strength of the tubing such as by the cutting of threads.

* * * * *

17. In § 173.53, paragraph (u) is revised to read as follows:

§ 173.53 Definition of class A explosives.

* * * * *

(u) *Charged well casing jet perforating guns.* Charged well casing jet perforating guns are steel tubes or metallic strips into which are inserted shaped charges connected in series by primacord. Shaped charges must be of a type described in paragraph (h)(1) of this section, except that each shaped charge installed in the steel tube or metallic strip shall contain not over 4 ounces of high explosive. Charged well casing jet perforating guns must not be transported with blasting caps, electric blasting caps, or other firing devices affixed to or installed in the guns.

* * * * *

18. In § 173.74, the first sentence of paragraph (b) is revised to read as follows:

§ 173.74 Lead styphnate.

* * * * *

(b) Lead styphnate (lead trinitroresorcinate) must be packed wet with not less than 20 percent by weight of water in Specification 5 or 5B (§§ 178.60, 178.82 of this subchapter) metal barrel or drum, Spec. 17H (§ 178.118 of this subchapter) metal drum (single-trip), with an inside bag made of rubber or rubberized cloth. * * *

* * * * *

19. In § 173.80, the heading and the entire text is revised to read as follows:

§ 173.80 Charged well casing jet perforating guns.

(a) Charged well casing jet perforating guns may be transported only by highway and only by private carriers engaged in well operations. These guns may be transported as Class C explosives if the total weight of the explosive contents of the shaped charges assembled to the guns does not exceed 20 pounds. See § 173.110.

(b) Charged well casing jet perforating guns of the steel tube type must be packed without blasting caps, electric blasting caps, or other firing devices affixed to or installed in the guns and transported in specifically constructed bodies of motor vehicles operated by private carriers engaged in well operations whose motor vehicles transporting such guns must have specially built racks or carrying cases designed and constructed so that the guns are held securely in place during transportation and are not subject to damage by contact, one to the other or other articles or materials carried on the vehicle. Shaped charges assembled in the steel tubes must be of the type described in § 173.53(h)(1), except that each shaped charge shall contain not over 4 ounces of high explosive and each shaped charge if not completely enclosed in glass or metal must be fully protected by a metal cover after installation in the gun.

(c) Charged well casing jet perforating guns of the metallic strip or tubular framework type must be packed without blasting caps, electric blasting caps, or other firing devices affixed to or installed in the guns and transported in specially constructed bodies of motor vehicles operated by private carriers engaged in well operations whose motor vehicles transporting such guns must have specially built racks or carrying cases designed and constructed so that the guns are held securely in place during transportation and are not subject to damage by contact, one to the other or other articles or materials carried on the vehicle. Shaped charges assembled in the metallic strips or tubular framework must be of the type described in § 173.53(h)(1), except that each shaped charge shall contain not over 4 ounces of high explosive and each shaped charge if not completely enclosed in glass or metal must be fully protected by a metal cover after installation in the gun.

(d) The charged well casing jet perforating guns described in paragraphs (b) and (c) of this section and the bodies of motor vehicles transporting such guns must be so designed and constructed so that the guns are held securely in place during transportation and are not subject to damage by contact, one to the other or other articles or materials carried on the vehicle. The assembled gun or guns packed as required by paragraphs (b) or (c) of this section must not extend beyond the body of the vehicle and must be secured in the body of the motor vehicle in a fixed position so as to prevent movement relative to each other or in the body of the motor vehicle.

(e) Blasting caps, electric blasting caps, or other firing devices transported on any motor vehicle operated by private carriers engaged in well operations transporting charged well casing jet perforating guns shall be segregated; each kind from every other kind, and from jet perforating guns, tools or other supplies. Blasting caps, electric blasting caps, or other firing devices shall be carried in a container having individual pockets for each such device or in a fully enclosed steel container lined with nonsparking material. No more than two blasting caps, electric blasting caps, or other firing devices per gun shall be transported on the same motor vehicle transporting well casing jet perforating guns.

20. In § 173.110, the heading, paragraphs (a) and (b), and the introductory text of paragraph (c) are revised to read as follows:

§ 173.110 Charged well casing jet perforating guns, total explosive content in guns not exceeding 20 pounds per motor vehicle.

(a) Charged well casing jet perforating guns transported by motor vehicles operated by private carriers engaged in well operations in which the total weight of the explosive contents of shaped charges assembled to guns being transported does not exceed 20 pounds per such vehicle must be packed as prescribed in § 173.60(b), (c), (d) and (e).

(b) Charged well casing jet perforating guns may be offered for transportation and transported only by private carrier by highway.

(c) Charged well casing jet perforating guns may be offered for transportation and transported by private offshore well supply vessels only when carried in special motor vehicles as prescribed in § 173.60 or on offshore down hole tool pallets provided that:

* * * * *

21. In § 173.115 paragraphs (b)(2), (d)(1) and (e) are revised to read as follows:

§ 173.115 Flammable, combustible, and pyrophoric liquids; definitions.

* * * * *

(b) *Combustible liquid.*

* * * * *

(2) For the purposes of this subchapter—

(i) An aqueous solution containing 24 percent or less alcohol by volume is considered to have a flash point of no less than 100° F. (37.8° C) if the remainder of the solution is not subject to this subchapter, and

(ii) An aqueous solution containing 24 percent or less alcohol by volume is not subject to the requirements of this subchapter if it contains no less than 50 percent water and no material (other than the alcohol) which is subject to this subchapter.

* * * * *

(d) *Flash point.* (1) "Flash point" means the minimum temperature at which a liquid gives off vapor within a test vessel in sufficient concentration to form an ignitable mixture with air near the surface of the liquid and shall be determined as follows:

(i) For a homogeneous, single-phase, liquid having a viscosity less than 45 S.U.S. at 100° F. (37.8° C) that does not form a surface film while under test, one of the following test procedures shall be used:

(A) Standard Method of Test for Flash Point by Tag Closed Tester, (ASTM D56–79); or

(B) Standard Methods of Test for Flash Point of Liquids by Setaflash Closed Tester, (ASTM D3278–78).

(ii) For a liquid other than one meeting all of the criteria of paragraph (d)(1)(i) of this section, one of the following test procedures shall be used:

(A) Standard Method of Test for Flash Point by Pensky-Martens Closed Tester, (ASTM D93–80). For cutback asphalt, use Method B of ASTM 93–80. (Alternate tests authorized in this standard may be used); or

(B) Standard Methods of Test for Flash Point of Liquids by Setaflash Closed Tester, (ASTM D3278–78).

* * * * *

(e) "S.U.S." means Saybalt Universal Seconds as determined by the Standard Method of Test for Saybolt Viscosity (ASTM D88–56) (reapproved 1968) and may be determined by use of the S.U.S. conversion tables specified in the Standard Method for Conversion of Kinematic Viscosity to Saybolt Universal Viscosity or to Saybolt Furol Viscosity ASTM D2161–79 following determination of viscosity in accordance with the Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (and the Calculation of Dynamic Viscosity) (ASTM D445–79).

* * * * *

22. In § 173.134, the first sentence of paragraph (a)(1)(iii) is revised to read as follows:

§ 173.134 Pyroforic liquids, n.o.s.

(a) * * *

(1) * * *

(iii) Overpacked in a Specification 12A or 12B (§§ 178.210, 178.205 of this subchapter) fiberboard box or Specification 33A (§ 178.150 of this subchapter) polystyrene case. * * *

* * * * *

23. In § 173.244, paragraphs (a)(3) and (a)(4) are redesignated paragraphs (a)(4) and (a)(5) respectively and a new paragraph (a)(3) is added to read as follows:

§ 173.244 Limited quantities of corrosive materials.

(a) * * *

(3) Corrosive liquids in glass containers having a rated capacity not over 8 fluid ounces by volume in strong outside packaging and cushioned with sufficient absorbent material to completely absorb the liquid contents in the event of breakage, and which will not react chemically with the corrosive material.

* * * * *

24. In § 173.245, paragraph (b) is amended by adding a sentence at the end to read as follows:

§ 173.245 Corrosive liquids not specifically provided for.

* * * * * *

(b) * * * For hazardous wastes and hazardous substances that would otherwise be subject to this paragraph, only the requirements of Parts 171 and 172 of this subchapter apply.

25. In § 173.245b, paragraph (a)(6) is revised to read as follows:

§ 173.245b Corrosive solids not specifically provided for.

* * * * *

(6) Open head plastic drum or pail not exceeding 95 pounds net weight and not over 7-gallon capacity or closed head plastic drum not exceeding 550 pounds net weight and not over 55-gallon capacity.

* * * * *

26. In § 173.271, the title and the introductory text of paragraph (a) are revised to read as follows:

§ 173.271 Methyl phosphonic dichloride, phosphorus oxybromide, phosphorus oxychloride, phosphorus trichloride, and thiophosphoryl chloride.

(a) Methyl phosphonic dichloride, phosphorus oxybromide, phosphorus oxychloride, phosphorus trichloride, and thiophosphoryl chloride must be placed in specification containers as follows:

* * * * *

27. In § 173.277, paragraph (a)(9) is revised, paragraph (a)(10) is added and paragraph (g) is removed to read as follows:

§ 173.277 Hypochlorite solutions.

(a) * * *

(9) Specification MC 310, MC 311 or MC 312 (§ 178.243 of this subchapter). Tank motor vehicles. Tanks must be lined with rubber or other materials resistant to the lading. Continued use of nonspecification cargo tanks used to transport hypochlorite solutions prior to January 1, 1983, is authorized.

(10) Specification IM 101 portable tanks (§§ 178.270, 178.271 of this subchapter) are authorized under conditions specified in the IM Tank Table.

* * * * *

28. In § 173.308, the introductory text of paragraph (a) is revised to read as follows:

§ 173.308 Cigarette lighter or other similar device charged with fuel.

(a) In addition to the requirements of § 173.21(e), a cigarette lighter or other similar device charged with a flammable gas must be shipped as follows:

* * * * *

29. In § 173.357, paragraph (b)(3) is revised to read as follows:

§ 173.357 Chloropicrin and chloropicrin mixtures containing no compressed gas or Poison A liquid.

* * * * *

(b) * * *

(3) Specification 17C or 17E (§§ 178.115, 178.116 of this subchapter). Metal drums (single-trip) with openings not over 2.3 inches in diameter. Capacity not to exceed 30 gallons for Specification 17E. Authorized only for mixtures of chloropicrin and technical grade dichloropropene containing not more than 15 percent chloropicrin by weight.

* * * * *

30. In § 173.505, paragraph (b) is revised to read as follows:

§ 173.505 Exceptions for Other Regulated Material (ORM).

* * * * *

(b) Strong outside packaging as specified in § 173.1200 and marking requirements specified in § 172.316 of this subchapter are not required for materials classed as ORM-D when unitized in cages, carts, or similar overpacks and when shipped by a private or contract motor carrier from a distribution center to a retail outlet.

PART 176—CARRIAGE BY VESSEL

31. In § 176.11, paragraph (a) is revised to read as follows:

§ 176.11 Exceptions.

(a) A hazardous material may be offered and accepted for transportation by vessel when in conformance with the requirements of the IMDG Code in place of the corresponding requirements of this subchapter pertaining to packaging, marking, labeling, classification, description, certification and placarding. All hazardous materials must otherwise be stowed and carried in accordance with this subchapter.

* * * * *

32. In § 176.30, paragraph (a)(3) is revised to read as follows:

§ 176.30 Dangerous cargo manifest.

(a) * * *

(3) Shipping name and identification number of each hazardous material on board as listed in § 172.101 or § 172.102 of this subchapter or as listed in the IMDG Code.

* * * * *

33. In § 176.415, paragraph (b)(2) is revised to read as follows:

§ 176.415 Permit requirements for blasting agents, ammonium nitrates, and certain ammonium nitrate mixtures.

* * * * *

(b) * * *

(2) Ammonium nitrate fertilizer (containing no more than 0.2 percent carbon) if the nearest District Commander, U.S. Coast Guard or Captain of the Port is notified at least 24 hours in advance of any loading or unloading in excess of 1,000 pounds in any one vessel (See footnote 1 to § 173.182).

* * * * *

PART 177—CARRIAGE BY PUBLIC HIGHWAY

34. In § 177.824, paragraph (h) is revised to read as follows:

§ 177.824 Retesting and inspection of cargo tanks.

* * * * *

(h) *Test and inspection date markings.* The month and year of the last test or visual inspection, as appropriate, must be durably and legibly marked on the tank in letters not less than 1¼ inches high. These markings must be near the metal certification plate.

* * * * *

35. In § 177.835, the first sentence of paragraph (b)(1) is revised to read as follows:

§ 177.835 Explosives.

* * * * *

(b) * * *

(1) Whenever tarpaulins are used for covering explosives, they shall be secured by means of rope, wire, or other equally efficient tie downs. * * *.

* * * * *

PART 178—SHIPPING CONTAINER SPECIFICATIONS

36. In § 178.51, § 178.51–19 paragraph (c) is amended by adding subparagraph (5) to read as follows:

§ 178.51–19 Marking.

* * * * *

(c) * * *

(5) On neck, valve boss, valve protection sleeve, or similar part permanently attached to the top end of the cylinder.

* * * * *

37. In § 178.209, § 178.209–14 paragraph (a) is revised to read as follows:

§ 178.209 Specification 12H; fiberboard boxes.

§ 178.209–14 Special test.

(a) *By whom and when.* By or for each plant making the boxes, at the beginning of manufacture and at six-month intervals thereafter, on the largest size, by weight. Smaller sizes need not be tested if they have the same or equivalent construction.

38. In § 178.214, § 178.214–18 paragraph (a) is revised to read as follows:

§ 178.214 Specification 23F; fiberboard boxes.

§ 178.214–18 Special test.

(a) *By whom and when.* By or for each plant making the boxes, at the beginning of manufacture and at six-month intervals thereafter, on the largest size, by weight. Smaller sizes need not be tested if they have the same or equivalent construction.

* * * * *

39. In § 178.218, § 178.218–11 paragraph (a) is revised to read as follows:

§ 178.218 Specification 23G; special cylindrical fiberboard box for high explosives.

§ 178.218–11 Special test.

(a) *By whom and when.* By or for each plant making the boxes, at the beginning of manufacture and at six-month intervals thereafter, on the largest size, by weight. Smaller sizes need not be tested if they have the same or equivalent construction.

* * * * *

40. In § 178.219, § 178.219–14 paragraph (a) is revised to read as follows:

§ 178.219 Specification 23H; fiberboard boxes.

§ 178.219–14 Special tests.

(a) *By whom and when.* By or for each plant making the boxes, at the beginning of manufacture and at six-month intervals thereafter, on the largest size, by weight. Smaller sizes need not be tested if they have the same or equivalent construction.

* * * * *

41. In § 178.245, § 178.245–7 paragraph (a) is revised to read as follows:

§ 178.245 Specification 51; steel portable tanks.

§ 178.245–7 Report.

(a) A copy of the manufacturer's data report required by the Code (See § 178.245–1(a)) under which the tank is fabricated shall be furnished to the owner for each new tank.

(49 U.S.C. 1803, 1804, 1808; 49 CFR 1.53, App. A to Part 1)

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L. D. Santman,

Director, Materials Transportation Bureau

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