
DEPARTMENT OF TRANSPORTATION
**Research and Special Programs
Administration**
**49 CFR Parts 171, 172, 173, 174, 176,
177, 178, and 179**
[Docket No. HM-166U; Notice No. 86-3]
**Transportation of Hazardous
Materials; Proposed Miscellaneous
Amendments**
AGENCY: Research and Special Programs
Administration (RSPA), DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Research and Special Programs Administration is proposing to make several miscellaneous amendments to the regulations pertaining to the transportation of hazardous materials. The action is necessary to update the regulations and to reduce RSPA's backlog of rulemaking petitions.

DATES: Comments must be received by July 31, 1986.

ADDRESS: Address comments to the Dockets Branch, Research and Special Programs Administration, U.S. Department of Transportation, Washington, DC 20590. Comments should identify the docket and notice number and be submitted in five copies. Persons wishing to receive confirmation of receipt of their comments should include a self-addressed stamped post card. The Dockets Branch is located in Room 8426 of the Nassif Building, 400 7th Street SW., Washington, DC. Public dockets may be reviewed between the hours of 8:30 a.m. and 5:00 p.m. Monday through Friday.

FOR FURTHER INFORMATION CONTACT: Darrell L. Raines, Chief, Exemptions and Regulations Termination Branch, Office

of Hazardous Materials Transportation, Washington, DC 20590 (202) 426-2075.

SUPPLEMENTARY INFORMATION: This document is primarily designed to reduce regulatory burdens by incorporating changes in the Hazardous Materials Regulations based on either petitions for rulemaking submitted in accordance with 49 CFR 106.31 or on RSPA's own initiative. These proposed amendments are in keeping with Executive Order 12291 and are designed to simplify existing regulations.

In Part 171, these proposed amendments would (1) update five Compressed Gas Association Pamphlets to the latest editions; (2) update the Association of American Railroads "Specifications for Tank Cars" to the 1985 edition; (3) incorporate by reference ASTM D 4359-84 "Standard Test Method for Determining Whether a Material is a Liquid or a Solid"; and (4) add a definition for "Liquid" and "Solid".

In Part 172, the Table would be revised by (1) removing the entries "1-Bromo-3-nitrobenzene (unstable at 56 °C)" and "Compound, water treatment, liquid. See Water treatment, liquid."; (2) reinstating the entry "Ethyl phosphonothioicdichloride, anhydrous"; (3) changing the ID number for the entry "lnk", combustible liquid; (4) changing the hazard class for the entry "Ethylene glycol diethyl ether (diethyl cellosolve)"; (5) revising the entry "Gasohol (*gasoline mixed with ethyl alcohol*). See Gasoline"; (6) adding a new entry "Air, refrigerated liquid (*cryogenic liquid*)"; (7) changing the hazard class, label, and packaging authorization sections for ethylene dibromide. This change results from RSPA's review of published data that indicates the proper hazard class for this material should be "Poison B" instead of "ORM-A". The toxicity of this material is such that it poses a significant hazard to health during transportation. This change in classification and packaging authorization would result in this material being subject to the requirements of § 173.3a; and (8) adding "Aluminum alkyl" and "Aluminum alkyl halide" to the § 172.102 Table. In § 172.202, paragraph (a)(4) would be revised to require the unit of measure to be identified on the shipping papers. In § 172.336, paragraphs (c)(4) and (c)(5) would be revised by adding the word "petroleum" before the word "distillate". In § 172.504, footnote 8 of Table 2 would be amended to include an OXYGEN placard. In § 172.519, paragraphs (b)(2) and (b)(4) would be revised to upgrade the placard construction standards.

In Part 173, these proposed amendments would (1) amend § 173.11(b)(4) to require the registration statement to include the type of packaging being used; (2) amend Retest Table 2 in § 173.31 to include DOT Specification 110A800-W multi-unit tank cars; (3) revise § 173.32 to authorize a portable tank to be used as a cargo tank; (4) revise § 173.51(g) to provide an exception for persons who are authorized to board an airplane with a loaded firearm; (5) remove paragraph (b) in § 173.57; (6) make an editorial correction in § 173.81(b) and § 173.104(c) regarding the marking for detonating cord; (7) add a paragraph (h) and (i) in § 173.86 regarding small arms ammunition and devices which contain small quantities of explosives; (8) amend the introductory text of § 173.87 to reference § 173.7(a); (9) add paragraph (a)(2) in § 173.93 to authorize smokeless powder for small arms to be shipped as Class B explosives in packaging approved in accordance with § 173.197a; (10) make an editorial correction in § 173.104; (11) remove paragraph (a)(4) in § 173.122; (12) amend § 173.164(a)(2) to add DOT Specification 17C metal drums for packaging chromic acid or chromic acid mixture, dry; (13) revise § 173.197a by adding the Bureau of Mines and to authorize co-mingling of inside boxes of smokeless powder for small arms; (14) amend the introductory text of § 173.220(a) to authorize the use of fiberboard boxes with inside polyethylene bags for packaging magnesium or zirconium scrap consisting of borings, shavings, or turnings; (15) add a Note 2 in § 173.245(a) to amend the requirements for nickel tank car tanks and cargo tanks for consistency with fabricating capabilities and construction materials available in the market place today. Similar changes are being proposed in § 173.253(a)(7) and (8), § 173.271(a)(7), (8) and (9), § 173.294(a)(2), (3), and (b), § 179.202-8, § 179.202-11, and § 179.202-16; (16) to provide for marking of stainless steel cargo tanks; (17) remove paragraph (d)(1) in § 173.277; (18) amend the first sentence of § 173.300(a) to clarify that a cryogenic liquid is subject to regulation without regard to the pressure in the package; (19) revise § 173.301(k) to remove the requirement that the outside packaging must provide value protection if the cylinder has features providing valve protection; (20) revise § 173.302(a)(5)(iv) by restricting

the charged service pressure for oxygen to 3000 psig at 70°; (21) reinstate DOT 4BW225 for sulfur dioxide in § 173.304(a)(2); (22) revise Note 6 in § 173.314 to make the safety relief devices to be the same as required in § 179.102-1(a)(3); (23) make an editorial correction in § 173.315(c); (24) amend § 173.316(c)(2) to provide filling limits for "air refrigerated liquid (*cryogenic liquid*)" in cylinders; (25) revise § 173.318(b)(2)(i)(B), (iii), and (iv) to require the use of a primary and a secondary system of pressure relief devices on cargo tanks used in cryogenic liquid service; (26) amend § 173.318(f) (2) and (3) to provide filling limits for "air, refrigerated liquid" and "hydrogen, refrigerated, liquid" in cargo tanks"; (27) add a new paragraph (a)(3) in § 173.320 to include a reference to Subparts A and B of Part 173, § 174.1 and § 177.804; and (28) reinstate § 173.965 "Cotton and other fibers".

In Part 174, these proposed amendments would amend § 174.9(b) by changing the word "must" to "may" regarding the drainage of heater coil inlet and outlet pipes.

In Part 178, § 178.76(g)(2) would allow hazardous materials in portable tanks to be transported on small passenger vessels.

In Part 177, these proposed amendments would remove paragraph (k) of § 177.834 which specifies how certain hazardous materials must be loaded to provide ready access, (2) revise § 177.841(e) to prohibit a motor carrier from carrying poisons in the passenger compartment of a motor vehicle and (3) revise § 177.848(b) to authorize cyanides or cyanide mixtures to be loaded or stored with corrosive liquids that are alkaline.

In Part 178, these proposed amendments would (1) authorize DOT-3E cylinders to be stamped in the sidewall; (2) correct and update the DOT-3AL Specification in § 178.46; (3) revise § 178.51-10(d) and § 178.61-10(b) regarding wall thickness of DOT Specifications 4BA and 4BW steel cylinders (4) make an editorial correction in § 178.53-9(a) regarding DOT-4D cylinders; (5) remove DOT-4B240-FLW from Part 178 and (6) revise § 178.245-1(a) by removing the requirement that DOT Specification 51 portable tanks must be postweld heat treated.

In Part 179, several of these proposed miscellaneous changes are based on

recommendations from the Association of American Railroads and are designed to update and clarify the present wording. The Chlorine Institute requested that § 179.102-2(a)(3) be revised to allow the use of a new insulation package of future tank cars for chlorine.

I certify that this proposed regulation will not, if promulgated, have a significant economic impact on a substantial number of small entities. Also, the RSPA has determined that this Notice (1) is not "major" under Executive Order 12291; (2) is not "significant" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); (3) does not warrant preparation of a regulatory evaluation as the anticipated impact would be so minimal; (4) will not affect not-for-profit enterprises, or small governmental jurisdictions and (5) does not require an environmental impact statement under the National Environmental Policy Act (49 U.S.C. 4321 et seq.).

The following list of Federal Register Thesaurus of Indexing Terms apply to this notice of proposed rulemaking:

List of Subjects

49 CFR Part 171

Hazardous materials transportation, Definitions.

49 CFR Part 172

Hazardous materials transportation, Labeling, packaging and containers.

49 CFR Part 173

Hazardous materials transportation, Packaging and containers.

49 CFR Part 174

Hazardous materials transportation, Railroad safety.

49 CFR Part 176

Hazardous materials transportation, Maritime, carriers, Radioactive materials.

49 CFR Part 177

Hazardous materials transportation, Motor carriers.

49 CFR Part 178

Hazardous materials transportation, Packaging and containers.

49 CFR Part 179

Hazardous materials transportation, Railroad safety.

Regulation affected	Reason(s) for proposed change.	Proposed amendment
§ 171.7(d)(2)	To reference the latest edition of the AAR's "Specification for Tank Cars."	In § 171.7, paragraph (d)(2) would be revised to read as follows: (2) AAR Specifications for Tank Cars means the 1985 edition of the "Association of American Railroads Specifications for Tank Cars, Specification M-1002."
§ 171.7(d)(3)(i)	To update CGA Pamphlet C-6 to the 1984 edition.	In § 171.7, paragraph (d)(3)(i) would be revised to read: (i) CGA Pamphlet C-6 is titled "Standards for Visual Inspection of Steel Compressed Gas Cylinders", 1984 edition.
§ 171.7(d)(3)(ii)	To update CGA Pamphlet C-7 to the 1983 edition.	In § 171.7, paragraph (d)(3)(ii) would be revised to read: (ii) CGA Pamphlet C-7, Appendix A, is titled "Guide to the Preparation of Precautionary Labeling and Marking of Compressed Gas Containers", 1983 edition.
§ 171.7(d)(3)(iv)	To update CGA Pamphlet C-8 to the 1985 edition.	In § 171.7, paragraph (d)(3)(iv) would be revised to read: (iv) CGA Pamphlet C-8 is titled, "Standard for Requalification of DOT-3HT Cylinders", 1985 edition.
§ 171.7(d)(3)(v)	To update CGA Pamphlet G-4.1 to the 1985 edition.	In § 171.7, paragraph (d)(3)(v) would be amended by changing "1977" edition to read "1985" edition.
§ 171.7(d)(3)(vi)	To incorporate CGA Pamphlet G-2.2, 1985 edition, referenced in § 173.315(1)(5).	In § 171.7, paragraph (d)(3)(vi) would be added to read: (vi) CGA Pamphlet G-2.2 is titled, "Guideline Method for Determining Minimum of 0.2% Water in Anhydrous Ammonia", 1985 edition.
§ 171.7(d)(5)	To incorporate by reference ASTM D 4358-84 "Standard Test Method for Determining Whether a Material is a Liquid or a Solid". Also, in § 171.8 definitions for "Liquid" and "Solid" would be added.	In § 171.7, paragraph (d)(5) (body) would be added to read as follows: (body) ASTM D 4358-84 is titled "Standard Test Method for Determining Whether a Material is a Liquid or a Solid", 1984 edition.
§ 171.8	To add a definition for "Liquid" and "Solid" as tested in accordance with ASTM D 4358-84.	In § 171.8, definitions for "Liquid" and "Solid" would be added to read as follows: "Liquid" means a material that has a vertical flow over 2 inches (50 mm) within a three minute period, or a material having one gram (1g) or more liquid separation when determined in accordance with the procedures specified in ASTM D 4358-84, "Standard Test Method for Determining Whether a Material is a Liquid or Solid", 1984 edition. "Solid" means a material which has a vertical flow of two inches (50 mm), or less, within a three-minute period, or, a separation of one gram (1g), or less, of liquid when determined in accordance with the procedures specified in ASTM D 4358-84 "Standard Test Method for Determining whether a material is a Liquid or Solid", 1984 edition.
§ 172.101 (Table)	The American Hoechst Corporation has requested that the entry "1-Bromo-3-nitrobenzene (unstable at 56 °C)" be removed as a "Forbidden" material. Based upon the information received and upon further research, the RSPA agrees that this material is not chemically unstable and should not be listed as a forbidden material.	In the § 172.101 Table the entry "1-Bromo-3-nitrobenzene (unstable at 56°C)" would be removed.
§ 172.101 (Table)	The Ethyne Corporation has brought to our attention that the entire Table entry for "Ethyl phosphonothioicdichloride, anhydrous" does not appear in the latest edition of 49 CFR. It appears that this entry was inadvertently removed when a change was made to the entry "Ethyl phosphorus dichloride, anhydrous".	In the § 172.101 Table the entire entry for "ethyl phosphonothioicdichloride, anhydrous" would be reinstated the same as it appeared in the October 1, 1982 edition of 49 CFR.
§ 172.101 (Table)	The entry "Compound, water treatment, liquid. See Water treatment, liquid" should be removed. The entry "Water treatment liquid" was removed under Docket HM-166-0 on November 17, 1983, [45 FR 52306]. However, the entry "Compound, water treatment, liquid. See Water treatment, liquid" was omitted.	In § 172.101, the Table would be amended by removing the entry "Compound, water treatment, liquid. See Water treatment, liquid."
§ 172.101 (Table)	To change the ID number for "Ink", combustible liquid, from UN 2867 to UN 1210 to be consistent with the entry in the United Nations Recommendations for the Transport of Dangerous Goods.	In § 172.101, the Table would be amended by changing the ID number for "Ink", combustible liquid, from UN 2867 to read UN 1210.
§ 172.101 (Table)	The entry "Ethylene dibromide" is presently classed as an "ORM-A". RSPA has found published data that indicates that the proper hazard class for this material should be Poison B instead of ORM-A. The toxicity of this material is such that it may pose a significant hazard to health during transportation.	In § 172.101, the Table would be amended by changing the hazard class of "ethylene dibromide" from "ORM-A" to Poison B; the label would be changed from "None" to "Poison"; the packaging columns would be changed from "173.505 and 173.520" to "173.345 and 173.348" respectively.
§ 172.101 (Table)	The entry "Ethylene glycol diethyl ether (diethyl cellosolve)" is presently classed as a "Combustible liquid". The Grant Chemical Division has furnished us data that indicates that the proper hazard class for this material should be flammable liquid instead of combustible liquid.	In § 172.101, the Table would be amended by changing the hazard class for "Ethylene glycol diethyl ether (diethyl cellosolve)" from "Combustible liquid" to "Flammable liquid".
§ 172.101 (Table)	This change is considered necessary to correctly identify the proper Emergency Response Guide number for Gasohol which has a maximum alcohol content of 20 percent. Paragraphs (c)(4) and (c)(5) in § 172.336 would be revised accordingly.	In the § 172.101 Table, the entry "Gasohol (gasoline mixed with ethyl alcohol). See Gasoline" would be revised to read "Gasohol (gasoline mixed with ethyl alcohol containing 20% maximum alcohol)." See Gasoline. In § 172.336, paragraphs (c)(4) and (c)(5) would be revised to read as follows: (4) For each of the different liquid petroleum distillate fuels, including gasoline and gasohol in a compartmented cargo tank or tank car, if the identification number is displayed for the distillate fuel having the lowest flash point. (5) For each of the different liquid petroleum distillate fuels, including gasoline and gasohol transported in a cargo tank, if the identification number is displayed for the liquid petroleum distillate fuel having the lowest flash point.
§ 172.102 (Table)	The entries "Aluminum alkyl, UN3051" and "Aluminum alkyl halide, UN3052" would be added in order to comply with Amendment 22-84 of the IMDG Code which becomes effective July 1, 1986. These changes are necessary to avoid the need for dual shipping names and placarding for certain pyroforic liquids.	In § 172.101, the table would be amended by adding "Aluminum alkyl" and "Aluminum alkyl halide".

§ 172.101 Hazardous Materials Table.

+ FE/ NW	Hazardous materials descriptions and proper shipping names	Hazard class	Identification number	Label(s) required (if not accepted)	Packaging		Maximum net quantity in one package		Water shipments		
					Excep-tions	Specific require-ments	Passenger carrying aircraft or raifcer	Cargo only aircraft	Cargo ves-sel	Pass-enger vessel	Other requirements
(1)	(2) ADD	(3)	(3)(a)	(4)	(5)(a)	(5)(c)	(6)(a)	(6)(b)	(7)(a)	(7)(b)	(7)(c)
	Ar., refrigerated (cryogenic liquid), liquid	Nonflammable Gas	UN 1003	Nonflammable Gas	173.320	173.316, 173.318	Forbidden	300 pounds	1.3	1.3	Show separate from flammables Do not over-stow with other cargo.

Regulation affected	Reason(s) for proposed change	Proposed amendment
§ 172.202(a)(4)	To require the unit of measure to be identified on the shipping papers.	In § 172.202, paragraph (a)(4) would be revised to read as follows: (4) Except for empty packagings, cylinders for compressed gases, and packagings of greater than 110 gallons capacity, the total quantity by weight (net or gross as appropriate) or volume, including the unit of measure, of the hazardous material covered by the description. For example: "800 lbs."; "56 gal."
§ 172.504 Table 2	To eliminate the need for dual placarding.	In § 172.504, footnote 8 of Table 2 would be amended by adding " or an OXYGEN placard" at the end.
§ 172.519(b)(2) and (4)	Proposed change responds to a petition of National Tank Truck Carriers, Inc. (P-963) concerning the need to upgrade the placard construction standards. Some of the present placards being employed do not have sufficient durability to withstand weathering for 30 days consistent with the intent of the present § 172.519(a)(4).	In § 172.519, paragraphs (b)(2) and (b)(4) would be revised to read as follows: (2) A weight of 200 pounds per ream of 24 by 36-inch sheets. (4) Been treated with plastic or other waterproofing material that will give it the ability to withstand open weather exposure (including rain) for 30 days without a substantial reduction in effectiveness.
§ 173.11(b)(4)	To require that a shipper identify the type of packaging being used to ship a flammable cryogenic liquid on the registration statement.	In § 173.11, the beginning of the first sentence of paragraph (b)(4) would be amended as follows: (4) The type of packaging and the serial number or vehicle identification number
§ 173.31 Retest Table 2.	To amend Retest Table 2 to include a new DOT Specification 110A800-W multi-unit tank car tank that is being added to § 1790.301.	In § 173.31, Retest Table 2 would be amended by adding the following

RETEST TABLE 2

Specification	Retest interval—years		Retest pressure p.s.i.		Safety relief valve pressure—p.s.i.	
	Tank	Safety relief devices	Tank hydrostatic expansion	Tank air test	Start-to-discharge	Vapor light
110A800-W		5	2	600	100	450 360

Regulation affected	Reason(s) for proposed change	Proposed amendment
§ 173.32(a)	To provide for the use under certain conditions of a portable tank as a cargo tank.	In § 173.32, paragraph (a)(1) would be revised and a new paragraph (a)(2) would be added to read as follows: (a) . . . (1) A portable tank containing a hazardous material may not be transported on a motor vehicle unless it is secured to the motor vehicle by a system which conforms to the requirements contained in 49 CFR 393.100 through 393.106, and is located at least six inches forward of the motor vehicle's rear bumper. A portable tank may not be filled or discharged while the tank remains on the vehicle, except as provided by paragraph (a)(2) of this section. (2) A DOT Specification 51, 60 or Marine Portable Tank (48 CFR Part 64) or an equivalent non-DOT specification portable tank authorized under a DOT exemption may not be filled or discharged while the tank remains on the motor vehicle, unless— (i) each discharge and filling outlet is equipped with an internal valve. Additionally, tanks used for the transportation of liquefied compressed gases, except carbon dioxide, must be equipped with excess-flow valves as specified in paragraph (n) of this section. (ii) bottom outlets, if provided, are fitted with three senally-mounted closures consisting of an internal valve, an external valve and a bolted flange or other suitable, liquid-tight closure on the outlet side of the external valve, and (iii) the internal valve is fitted with a remote means of closure located more than 10 feet from the loading/unloading-hose connection or as far as possible from the loading/unloading-hose connection. The remote closure system must be corrosion resistant and effective in all environments. The remote means of closure must be actuated manually. For other than corrosive material service, the remote means of closure must also be activated thermally. Thermally activated closures must operate at a temperature not over 250°F, and not less than 230°F.
§ 173.32c	See § 173.32(a)	In § 173.32c new paragraphs (m)(1) and (2) would be added to read as follows: (m)(1) An IM portable tank containing a hazardous material may not be transported on a motor vehicle unless it is secured to the motor vehicle by a system which conforms to the requirements of 49 CFR 393.100 through 393.106 and is located at least six inches forward of the motor vehicle's rear bumper. (2) A Specification IM 101 and IM 102 portable tank may not be filled or discharged while the tank remains on the motor vehicle, unless the portable tank—

Regulation affected	Reason(s) for proposed change	Proposed amendment
§ 173.51	In 14 CFR 108.11 certain persons are authorized to board an airplane with a loaded weapon. In § 173.51, paragraph (g) prohibits the transportation of loaded firearms. The RSPA is proposing to amend paragraph (g) of § 173.51 to provide for an exception as authorized in 14 CFR 108.11.	<p>(g) is in conformance with the requirements of paragraph (g) of this section, and (h) when required, the internal valve is fitted with a remote means of closure located more than 10 feet from the loading/unloading-hose connection or as far as possible from the loading/unloading-hose connection. The remote closure system must be corrosion resistant and effective in all environments. The remote means of closure must be actuated manually. For other than convective material service, the remote means of closure must also be activated thermally. Thermally activated closures must operate at a temperature not over 250°F and not less than 230°F.</p> <p>In § 173.51, paragraph (g) would be revised to read as follows: (g) Loaded firearms (except as provided in 14 CFR 108.11).</p>
§ 173.57(b)	Column (2) of the § 172.101 Table specifies the hazardous materials descriptions and proper shipping names. Repeating this same information on Part 173 serves no useful purpose.	In § 173.57, paragraph (b) would be removed.
§ 173.81(b)	Editorial correction.	<p>In § 173.81, paragraph (c)(e) would be corrected to read (c)(3) and paragraph (b) would be revised to read as follows: § 173.81 <i>Detonating cord.</i> (a) * * * (b) Each outside packaging shall be plainly marked "CORD, DETONATING—HANDLE CAREFULLY".</p>
§ 173.86(h) and (i)	This proposed change is considered necessary because this type of small arms ammunition has a low level of risk and the actual explosive components have been approved previously and separately from the ammunition itself. Paragraph (i) is considered necessary to provide a means for recognizing that certain devices which contain explosives in small quantities or in certain configurations may be included in a different classification, or exempted from the requirements of the regulations.	<p>In § 173.86, paragraphs (h) and (i) would be added to read as follows: § 173.86 <i>New explosives definitions; approval and notification.</i></p> <p>(h) The requirements of this section do not apply to small arms ammunition which is: (1) Not a forbidden explosive under § 173.51; (2) Ammunition for rifle, pistol, or shotgun; (3) Ammunition with inert projectiles or blank ammunition; and (4) Ammunition not exceeding 50 caliber for rifle or pistol cartridges or 8 gauge for shotshells.</p> <p>(i) If experience or other data indicate that the hazard of a material (device) containing an explosive composition is greater or less than indicated according to the definition and criteria specified in §§ 173.53, 173.86 and 173.100 of this Part, the Director, OHMT, may, following examination in accordance with paragraph (b) of this section, revise its classification or exempt the material (device) from the requirements of this Subchapter.</p>
§ 173.87	To authorize shipment of explosives and other articles when packaged by the Department of Defense (DOD) in accordance with § 173.7(a).	<p>In § 173.87, the first sentence is amended to read as follows: § 173.87 <i>Explosives in mixed packaging.</i> Unless specifically authorized in this subchapter, explosives may not be packed in the same outside packaging with other articles unless packaged by the DOD in accordance with § 173.7(a). * * *</p>
§ 173.93(a)(2)	To authorize smokeless powder for small arms to be shipped as Class B explosives in packagings which have been approved under § 173.97a.	<p>In § 173.93, paragraph (a)(2) would be added to read as follows: § 173.93 <i>Propellant explosives (solid) for cannon, small arms, rockets, guided missiles, or other devices, and propellant explosives (liquid).</i> (a) * * * (1) * * * (2) Smokeless powder for small arms may be shipped as Class B explosives in packagings approved in accordance with § 173.97a.</p>
§ 173.104(c)	Editorial correction.	<p>In § 173.104, the heading and paragraph (c) would be revised to read as follows: § 173.104 <i>Cord, detonating flexible, fuse, mild detonating, metal clad or flexible linear shaped charge, metal clad.</i></p> <p>(c) Cord, detonating flexible, fuse, mild detonating, metal clad and flexible linear shaped charges, metal clad shall be packed in wooden or fiberboard boxes. Each package shall be marked "CORD, DETONATING—HANDLE CAREFULLY", "FUSE, MILD DETONATING, METAL CLAD—HANDLE CAREFULLY" or "FLEXIBLE LINEAR SHAPED CHARGES, METAL CLAD—HANDLE CAREFULLY", as appropriate.</p>
§ 173.122(a)(4)	To prohibit the use of DOT Specification 17C metal drums for packaging acrolein, inhibited. In view of HM-196, the use of the 17C drum should not be authorized for acrolein, inhibited.	In § 173.122, paragraph (a)(4) would be removed and reserved.
§ 173.164(a)(2)	This paragraph presently authorizes chromic acid or chromic acid mixture, dry to be packaged in DOT Specification 17H or 37A metal drums. The U.S. Army Chemical Research and Development Center has requested that DOT Specification 17C steel drums be added to this paragraph. RSPA's findings indicate that DOT Specification 17C drums would be acceptable for this material.	In § 173.164, paragraph (a)(2) would be amended to include Specification 17C metal drums.
§ 173.197a	To authorize co-mingling of inside boxes of smokeless powder without further approval by the Director, OHMT. Also, the Bureau of Mines would be added as an authorized testing facility.	<p>§ 173.197a <i>Smokeless powder for small arms.</i> Smokeless powder for small arms in quantities not exceeding 100 pounds net weight transported in one car or motor vehicle may be classed as a flammable solid when examined for this classification by the Bureau of Explosives or the Bureau of Mines and approved by the Director, OHMT. Maximum quantity in any inside packaging must not exceed 8 pounds and inside packagings must be arranged and protected to prevent simultaneous ignition of the contents. The complete package must be a type examined by the Bureau of Explosives or the Bureau of Mines and approved by the Director, OHMT. In addition, inside packages which have been examined by the Bureau of Explosives or the Bureau of Mines and approved by the Director, OHMT, may be overpacked in DOT-12A65, 12B65, or 12H65 fiberboard boxes provided all inside containers are firmly packed to prevent movement and the net weight of smokeless powder in any one box does not exceed 18 pounds. Each outside package must bear a flammable solid label.</p>
§ 173.220(a)	To authorize the use of fiberboard boxes with inside polyethylene bags for packaging magnesium or zirconium scrap consisting of borings, shavings, or turnings. This proposed packaging is considered to be equal to or better than the four-ply paper bags that are presently authorized. Also, a paragraph (3) would be added to be consistent with the IMDG Code.	<p>In § 173.220, the introductory text of paragraph (a) would be revised and paragraph (3) would be added to read as follows: (a) Magnesium or zirconium scrap consisting of borings, shavings, or turnings, must be packed in closed metal barrels or drums, wooden barrels, metal pails, fiber drums, fiberboard boxes with inside polyethylene bags or liner, or four-ply paper bags.</p>

Regulation affected	Reason(s) for proposed change	Proposed amendment
§ 173.245(a), Note 2.	These proposed changes and additions would amend the requirements for nickel tank car tanks and cargo tanks for consistency with fabricating capabilities and construction materials available in the market place today.	<p>Fiberboard boxes with inside polyethylene bags or liner or paper bags are not authorized for less-than-carload or less-than-truckload shipments.</p> <p>(2) When transported by vessel, magnesium scrap may not be carried in paper bags and zirconium scrap may only be packaged in an hermetically sealed metal drum not exceeding 90 pounds net weight.</p> <p>In § 173.245(a), Note 2 would be added to read as follows:</p> <p>§ 173.245 <i>Corrosive liquids not specifically provided for</i></p> <p>(A)</p> <p>(3)</p> <p>Note 1:</p> <p>Note 2. Specification 103ANW tank car tanks must be fabricated of solid nickel at least 95 percent pure and containing not more than 1 percent iron. Metal test coupons for welding procedure qualification must contain not more than 1 percent iron. All cast metal parts of the tank in contact with the lading must have a minimum nickel content of approximately 95.7 percent. Specification 103A tank car tanks must be lead-lined steel or must be made of steel with at least 10 percent nickel cladding.</p> <p>Specification 103AW, 111A100F2, or 111A80W2 tanks must be lead-lined steel or made of steel with a minimum nickel cladding of 1/8 inch thickness; nickel cladding in tanks must have a minimum nickel content of at least 99 percent.</p>
§ 173.253(a)(7) and (8).	See § 173.245(a), Note 2.	<p>In § 173.253, paragraph (a)(7) and (a)(8) would be revised to read as follows:</p> <p>(a)</p> <p>(7) Specification 103AW, 111A80W2, or 111A100F2 (§§ 179.200, 179.201 of this subchapter). Tank cars. Tanks must have a nickel cladding of 1/8 inch minimum thickness. Nickel cladding in tanks must have a minimum nickel content of at least 99 percent.</p> <p>(8) Specification 103ANW (§§ 179.200 and 179.201 of this subchapter) Tank cars. Tanks must be fabricated of solid nickel at least 95 percent pure and containing not more than 1 percent iron. Metal test coupons for welding procedure qualification must contain not more than 1 percent iron. All cast metal parts of the tank in contact with the lading must have a minimum nickel content of approximately 95.7 percent.</p>
§ 173.266(f)(2)	To provide for the metal identification plate on stainless steel cargo tanks to be marked "DOT MC 312-SS-H ₂ O";	<p>In § 173.266, the eighth sentence in paragraph (f)(2) would be revised to read as follows:</p> <p>§ 173.266 <i>Hydrogen peroxide solution in water.</i></p> <p>(f)</p> <p>(2) The tank metal identification plate required shall be marked "DOT MC 310-H₂O"; or "DOT MC 312-AL-H₂O"; or "DOT MC 312-SS-H₂O"; as appropriate, and, in addition, the cargo tank shall be clearly marked in letters not less than one inch high "FOR HYDROGEN PEROXIDE ONLY".</p>
§ 173.271(a)(7), (a)(8)(iv), and (a)(9).	See § 173.245(a) Note 2.	<p>In § 173.271, paragraphs (a)(7), (a)(8)(iv), and (a)(9) would be revised to read as follows:</p> <p>§ 173.271 <i>Methyl phosphonic dichloride, phosphorus oxychloride, phosphorus oxychloride, phosphorus trichloride, and thiophosphoryl chloride.</i></p> <p>(a)</p> <p>(7) Specification 103ANW (§§ 179.200 and 179.201 of this chapter) Tank cars. Tanks must be fabricated of solid nickel at least 95 percent pure and containing not more than 1 percent iron. Metal test coupons for welding procedure qualification must contain not more than 1 percent iron. All cast metal parts of the tank in contact with the lading must have a minimum nickel content of approximately 95.7 percent.</p> <p>(8)</p> <p>(iv) Specification MC 311 or MC 312 cargo tanks. Tanks must be fabricated of solid nickel at least 95 percent pure and not more than 1 percent iron. Metal test coupons for welding procedure qualification must contain not more than 1 percent iron. All cast metal parts of the tank in contact with the lading must have a minimum nickel content of approximately 95.7 percent. Authorized only for phosphorus oxychloride and phosphorus trichloride.</p> <p>(9) Specification 103A¹, 103AW, 111A80W2, or 111A100F2 (§§ 179.200, 179.201 of this subchapter). Tank cars. Specification 103A¹, tanks must be lead-lined steel or made of steel with nickel cladding of at least 10% of the shell thickness. Specification 1103AW, 111A80W2, or 111A100F2 tanks must be lead-lined steel or made of steel with nickel cladding with a minimum thickness of 1/8 inch. Nickel cladding in tanks must have a minimum nickel content of at least 99 percent.</p>
§ 173.277(d)(1)	the RSPA proposed to delete paragraph (d)(1) of § 173.277. This paragraph should have been deleted when paragraph (d) was revised under Docket No. HM-103, HM-112 (41 FR 15972) on April 15, 1976.	In § 173.277, paragraph (d)(1) would be removed.
§ 173.294(a)(2), (a)(3) and (b).	See § 173.245(a) Note 2.	<p>In § 173.294, the heading, paragraphs (a)(2), (a)(3) and (b) would be revised to read as follows:</p> <p>§ 173.294 <i>Chloroacetic acid, liquid or solution.</i></p> <p>(a)</p> <p>(2) Specification 103ANW, 103AW, 111A80W2, or 111A100F2 (§§ 179.200, 179.201 of this subchapter) Tank cars. Specification 103AW, 111A80W2, or 111A100F2 tank cars must be nickel clad with a nickel thickness of at least 20 percent. Nickel cladding in tanks must have a minimum nickel content of at least 99 percent.</p> <p>(3) Specifications MC 310, MC 311, or MC 312 (§§ 178.343 of this chapter) Cargo tanks. Tanks must be fabricated of solid nickel at least 95 percent pure and containing not more than 1 percent iron, type 304 or 316 stainless steel or be suitably lined. Nickel metal test coupons for welding procedure qualification must contain not more than 1 percent iron.</p>

Regulation affected	Reason(s) for proposed change	Proposed amendment
§ 173.300(a)	To clarify that a cryogenic liquid is subject to regulation without regard to the pressure in the container.	(b) Chloroacetic acid, anhydrous, when shipped as a liquid must be shipped in Specification 103 ANW tank car tanks fabricated of nickel containing not more than 1 percent iron or in Specification 103 AW or 111A80W2 tank car tanks nickel clad. Cladding must be at least 20 percent of the shell thickness. In place of cladding, the tank may be provided with a suitable corrosive resistant coating or lining. Nickel cladding in tanks must have a minimum nickel content of a least 99 percent. In § 173.300, a sentence would be added at the end of paragraph (a) to read as follows: (a) . . . or a cryogenic liquid. For a definition of a cryogenic liquid, see paragraph (f) of this section.
§ 173.301(a)	If the cylinder has features providing valve protection, it is unnecessary for the outside packaging to provide this protection.	In § 173.301, paragraph (k) would be revised to read as follows: § 173.301 <i>General requirements for shipment of compressed gases in cylinders.</i> (k) <i>Outside packaging.</i> . . . (1) Outside packaging must provide protection for the cylinder. Unless the cylinder has a protective collar or neckring, the outside packaging must provide protection to the valve against accidental functioning and damage.
§ 173.302(a)(5)(iv)	Present wording limits the service pressure on the cylinder to 3,000 psig, whereas the reason for the present wording is to prevent the charging pressure for oxygen from exceeding 3,000 psig. There is no reason why a higher design pressure cylinder should be excluded as long as the oxygen pressure limit is not exceeded.	In § 173.302, paragraph (a)(5)(iv) would be revised to read as follows: (v) The pressure in the cylinder may not exceed 3,000 psig at 70 °F.
§ 173.304(a)(2)	To restate the 4B225 to the list of cylinders authorized for the transportation of sulfur dioxide. This cylinder was inadvertently omitted in Docket HM-176 (46 FR 82452, December 24, 1981).	In § 173.314(a)(2) the Table would be amended by adding "DOT-4B225" in the third column for the entry "Sulfur dioxide".
§ 173.314(c) Note 6 of Table	The present wording of Note 6 states in part that the discharge capacity of each of these safety relief devices must be sufficient to prevent building up of pressure in the tank in excess of 1/2 of the test pressure of the tank. In § 173.102-1, paragraph (a)(3) uses a 82.5 percent figure. The AAR has requested that this discrepancy be corrected.	In § 173.314, the third sentence of Note 6 following the Table would be revised to read as follows: Note 6: . . . The discharge capacity of each of these safety relief devices must be sufficient to prevent building up of pressure in the tank in excess of 82 1/2 percent of the tank test pressure. . . .
§ 173.315(c)	Docket HM-115 (48 FR 27674, June 16, 1983) revised paragraph (c)(1), however that portion which read "The vapor pressure (psig) at 115 °F. must not exceed the design pressure of the cargo tank or portable tank container" was inadvertently omitted.	In § 173.315, paragraph (c) would be revised to read as follows: (c) Except as otherwise provided, the loading of a liquefied gas into a cargo tank or portable tank shall be determined by weight or by a suitable liquid level gauging device. The vapor pressure (psig) at 115 °F. must not exceed the design pressure of the cargo tank or portable tank container. The liquid portion of the gas shall not fill the tank at 105 °F. if the tank is insulated, or at 115 °F. if the tank is uninsulated, except that this requirement shall not apply to . . .
§ 173.316	To provide filling limits for "air, refrigerated liquid" in cylinders.	In § 173.316, paragraph (c)(2) would be amended by inserting the word "air" immediate before the word "argon", and the table would be amended by adding a column for "air" immediately preceding the column for "argon" to read as follows: (2) . . .

Pressure control valve setting (maximum start-to-discharge pressure, psig)	Maximum permitted filling density (percent by weight) Air	Pressure control valve setting (maximum start-to-discharge pressure, psig)	Maximum permitted filling density (percent by weight) Air	Pressure control valve setting (maximum start-to-discharge pressure, psig)	Maximum permitted filling density (percent by weight) Air
45	82.5	230	75.1	540	62.9
75	80.3	295	73.3	625	60.1
105	78.4	360	70.7	Design Service Temperature (°F)	-320
170	76.2	450	65.9		

Regulation affected	Reason(s) for proposed change	Proposed amendment
§ 173.318(b)(2)	To require the use of a primary and a secondary system of pressure relief devices on a cargo tank used in atmospheric gas (except oxygen) and helium, cryogenic liquid service. Proposed change is in response to a petition from the Compressed Gas Association.	In § 173.318, paragraphs (b)(2)(i), (B), (b)(2)(ii) and (iv) would be revised to read as follows: (B) <i>Tanks in atmospheric gas (except oxygen) and helium, cryogenic liquid service.</i> (i) The primary system of pressure relief valve or valves must have a flow capacity equal to or greater than that specified in 4.1.10.1.1 of CGA Pamphlet S-1.2. The inlet connection shall not be less than 1/2" nominal pipe size. The combined pressure relief system must have a flow capacity equal to or greater than that calculated by the applicable formula in paragraph 5.3.2 or paragraph 5.3.3 of CGA Pamphlet S-1.2. (ii) The secondary system of frangible discs or additional pressure relief valves must have the minimum capacity specified in paragraph (b)(2)(i) of this section, at a pressure not exceeding 150 percent of the tank design pressure. (iv) The primary system of pressure relief valves must have a liquid flow capacity (rated at a pressure not exceeding 120 percent of the tank design pressure), that equals or exceeds the maximum rate at which the tank is to be filled. However, a rating pressure for purposes of flow capacity not exceeding 150 percent of the tank design pressure is authorized on a tank used in atmospheric gas (except oxygen) and helium, cryogenic liquid service.
§ 173.318(f)(2) & (3)	To provide filling limits for "air, refrigerated liquid" and to increase the filling limit authorized for "hydrogen" when shipped in cargo tanks. Proposed changes respond to petitions from Air Products and Union Carbide Corp.	In § 173.318, paragraph (f)(2) would be amended by removing the word "argon" and inserting in its place the words "Air, argon", and the Table would be amended by adding a column for "air" immediately preceding the column for "argon", and paragraph (f)(3) would be amended by adding an entry in the Table for "hydrogen".

(f) * * *
(2) * * *

PRESSURE CONTROL VALVE SETTING OR RELIEF VALVE SETTING

Maximum set-to-discharge pressure (psig)	Maximum permitted filling density (percent by weight) air
30	80.3
40	78.2
50	78.0
55	77.3
60	76.9
80	75.3
85	75.1
100	73.0
105	73.7
120	72.2
140	71.4
145	70.8

PRESSURE CONTROL VALVE SETTING OR RELIEF VALVE SETTING—Continued

Maximum set-to-discharge pressure (psig)	Maximum permitted filling density (percent by weight) air
180	68.3
200	67.3
250	63.3
275	62.3

PRESSURE CONTROL VALVE SETTING OR RELIEF VALVE SETTING—Continued

Maximum set-to-discharge pressure (psig)	Maximum permitted filling density (percent by weight) air
325	59.4
Design Service Temperature	Minus 320 °F.

(3) * * *

PRESSURE CONTROL VALVE SETTING OR RELIEF VALVE SETTING

Maximum set-to-discharge pressure (psig)	Maximum permitted filling density (percent by weight)			
	Carbon Monoxide	Ethylene	Hydrogen	Methane or natural gas
150				4.5

Regulation affected	Reason(s) for proposed change	Proposed amendment
§ 173.320	At present shipments of atmospheric gas and helium, cryogenic liquid, in packagings authorized under this section do not have to conform with Subparts A and B of Part 173, and §§ 174.1 and 177.804. It was never the intent to exempt these cryogenic liquids from the above referenced sections. A change is needed to prevent the shipment of leaking packagings.	In §§ 173.320 the last sentence in paragraph (a) would be revised to include a reference to paragraph (a)(3); paragraph (a)(3) would be redesignated as (a)(4), and a new paragraph (a)(3) would be added to read as follows: (3) Subparts A and B of Part 173, and §§ 174.1 and 177.804 of the subchapter.
§ 173.965	On November 17, 1983, Docket No. HM-186-0 (48 FR 52306) inadvertently removed § 173.965. However, cotton is listed in the § 172.101 Table and reference § 172.965.	§ 173.965 would be added to read as follows: § 173.965 <i>Cotton and other fibers.</i> Cotton and fibers jute, hemp, flax, sisal, cor, kapok, or similar vegetable fibers, when offered for transportation by water, must be packaged in bales, securely and tightly bound with rope, wire, or other similar means.
§ 174.9(b)	Reference paragraph states that heater coil inlet and outlet pipes must be left open for drainage. The Pennzoil Products Company reports that steam is applied only during the coldest portion of the winter season. When steam is applied, the heater caps must be left off to allow proper drainage. However, 95% of the time steam is not applied and removing and reapplying heater caps at the loading site, except during the cold season is time consuming and serves no useful purpose. The RSPA proposes to change the present word "must" to read "may".	In § 174.9 paragraph (b) would be revised to read as follows: (b) An empty tank car which previously contained a hazardous material and which is tendered for movement or received in interchange must have all manhole covers, outlet valve reducers, outlet valve caps, outlet valve cap plugs, end plugs, and plugs or caps or other openings securely in their proper places, except that heater coil inlet and outlet pipes may be left open for drainage.
§ 176.76(g)(2)	Construction standards for small passenger vessels certificated by the U.S. Coast Guard under 46 CFR Subchapter T are much less stringent than the standards for large passenger vessels. The Coast Guard believes that these small vessels are not suitable for the carriage of hazardous materials in portable tanks when carrying a full complement of passengers. These small vessels (commonly referred to as T-Boats) are used on a regular basis to carry passengers and supplies to offshore platforms and drill rigs. The Coast Guard has controlled this potential problem in the past by placing an endorsement on the vessel's Certificate of Inspection which permits them to carry hazardous materials in portable tanks only when no passengers are on board.	In § 176.76, paragraph (g)(2) would be revised to read as follows: (2) Small passenger vessels of 100 gross tons or less, may carry a hazardous material in a portable tank only when 15 or less passengers are on board and only when specifically authorized by the Officer-in-Charge, Marine Inspector, by endorsement on the vessel's Certificate of Inspection.
§ 177.834(k)	The American Trucking Association, Inc. (ATA) has petitioned for the removal of paragraph (k) which reads as follows: "(k) Access to mixed loadings: Flammable solids, oxidizing materials or corrosive liquids, when transported on a motor vehicle with other loading, not otherwise forbidden, shall be so loaded as to provide ready access thereto for shifting or removal." The ATA believes that carrier operating practices should dictate how the weight of the load should be distributed throughout the trailer to insure an optimum level of vehicle stability and compliance with weight laws. The motor carrier also should be given the flexibility to load the trailer to minimize the possibility of lighter packages being crushed by heavier freight.	In § 177.834 paragraph (k) would be removed and reserved. AISC reference to paragraph (k) in the beginning of Sections §§ 177.831, 177.837, 177.838, 177.839, 177.840, and 177.841 would be amended to read (j).
§ 177.841(e)	To prohibit a motor carrier from carrying poisons or an irritating material in the passenger compartment of a motor vehicle. Incidents have occurred where a driver has placed a hazardous material (poison) in the passenger compartment and the packaging leaked which endangered the driver.	In § 177.841, paragraph (e) would be revised by adding a sentence at the end to read as follows: (e) * * * No motor carrier may transport a packaging containing a material labeled "Poison", or "Poison gas", or "Irritant" in the driver's compartment of a motor vehicle.
§ 177.848(b)	This paragraph reads "cyanides or cyanide mixtures must not be loaded or stored with acids or corrosive liquids." Cyanides and cyanide mixtures do not present an undue hazard by being stored next to or over by being mixed with corrosive liquids that are alkaline. Several commentaries have requested that this unnecessary restriction be removed.	In § 177.848 paragraph (b) would be revised to read as follows: (b) Cyanides or cyanide mixtures must not be loaded or stored with acids or any other acidic materials which could release hydrocyanic acid from cyanides.
§ 176.42-14	For most specifications cylinders, any identification in the sidewall is prohibited. This proposed change clarifies that the markings on a DOT 3E cylinder may be stamped in the sidewall.	In § 176.42-14 paragraph (e) would be revised to read: (e) Marking on each cylinder by stamping, plain, and permanently on shoulder, top, neck, or sidewall as follows:
§ 176.46-4(a), § 176.46-5(d)(1) and (2), § 176.46-6(c), § 176.46-8(a)	To correct and update the DOT-3AL Specification and to prohibit use of aluminum alloys with harmful quantities of lead and bismuth. The proposed threading requirements are expected to be included in all high pressure cylinder specifications in a future rulemaking. The proposal to authorize the 4D size tensile specimen for a second test to qualify a cylinder lot was indicated as acceptable in the preamble to Docket No. HM-176 but was not included in the final rule. Authorization to use the 4D bar in a second test does not apply to cylinders with sidewall thickness of 3/16 inch and less. RSPA believes that a valid test using the 4D size specimen cannot be obtained in this thickness range.	In § 176.46-4, paragraph (a) would be revised to read as follows: § 176.46-4 <i>Duties of the Inspector.</i> (a) The inspector shall determine that all materials are in compliance with the requirements of this specification.
		In § 176.46-5 Table 1 and footnote 2 of Table 2 in paragraph (d) would be revised to read as follows: § 176.46-5 <i>Authorized material and identification of material.</i> (d) * * *

(1) CHEMICAL COMPOSITION LIMITS ¹

(Chemical Composition (in weight percent))

Aluminum Assoc. alloy designation No	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Other ²		Al
											Each	Total	
6351	0.7-1.3	0.50	0.10	0.40-0.80	0.40-0.80		0.20	0.20	0.01	0.01	0.05	0.15	Remainder
6061	0.40-0.80	0.70	0.15-0.40	0.15	0.80-1.20	0.04-0.35	0.25	0.15	0.01	0.01	0.05	0.15	Remainder

¹ ASIM B 221-76 Standard Specification for Aluminum-Alloy Extruded Bars, Rods, Shapes and Tubes Table 1 Chemical Composition Limits except for Pb and Bi Limits are in percent maximum unless otherwise indicated.

² Analysis is routinely made only for the elements for which specific limits are shown, except for unalloyed aluminum. If, however, the presence of other elements is suspected to be, or in the course of routine analysis is indicated to be, in excess of specified limits, further analysis is made to determine that these other elements are not in excess of the amount specified (Aluminum Association Standards and Data Sixth Edition 1978).

Regulation affected	Reason(s) for proposed change	Proposed amendment
		<p>(2) <i>Mechanical Property Limits</i></p> <p>"D" represents specimen diameters. When the cylinder wall is greater than 1/4 inch thick, a retest without reheat treatment using the 4D size specimen is authorized if the test using the 2 inch size specimen fails to meet elongation requirements.</p> <p>In § 178.46-6 paragraph (c) would be revised to read as follows:</p> <p>§ 178.46-6 <i>Manufacture.</i></p> <p>(c) Thickness of the cylinder base may not be less than the prescribed minimum wall thickness of the cylindrical shell. The cylinder base must have a basic topspherical, hemispherical, or ellipsoidal interior base configuration where the dish radius is no greater than 1.2 times the inside diameter of the shell. The knuckle radius may not be less than 12 percent of the inside diameter of the shell. The interior base contour may deviate from the true topspherical, hemispherical, or ellipsoidal configuration provided:</p> <p>(1) any areas of deviation are accompanied by an increase in base thickness.</p> <p>(2) all radii of merging surfaces are equal to or greater than the knuckle radius.</p> <p>(3) each design has been qualified by successfully passing the cycling tests in § 176.46-6(f) and</p> <p>(4) that detailed specifications of the base design are available to the inspector.</p> <p>In § 178.46-8 paragraph (e) would be revised to read as follows:</p> <p>§ 178.46-8 <i>Openings.</i></p> <p>(e) All openings must be threaded. Threads must comply with the following:</p> <p>(1) Each thread must be clean cut, even, without checks, and to gauge.</p> <p>(2) Taper threads, when used, must comply with one of the following:</p> <p>(i) American Standard Pipe Thread (NPT) type must comply with the requirements of Federal Standard H-28 (1978) Section 7.</p> <p>(ii) National Gas Taper Thread (NGT) type must comply with the requirements of Federal Standard H-26 (1978) Sections 7 and 9.</p> <p>(iii) Other taper threads in compliance with other standards may be used provided the length is not less than that specified for NPT threads.</p> <p>(3) Straight threads when used must comply with one of the following:</p> <p>(i) National Gas Straight Thread (NGS) type must comply with the requirements of Federal Standard H-28 (1978) Sections 7 and 9.</p> <p>(ii) Unified Thread (UN) type must comply with the requirements of Federal Standard H-2E (1978) Section 2.</p> <p>(iii) Controlled Radius Root Thread (UNJ) type must comply with the requirements of Federal Standard H-28 (1978) Section 4.</p> <p>(iv) Other straight threads in compliance with other recognized standards may be used provided that the requirements in (4) below are met.</p> <p>(4) All straight threads must have at least 6 engaged threads, a tight fit, and a factor of safety in shear of at least 10 at the test pressure of the cylinder. Shear stress must be calculated by using the appropriate thread shear area in accordance with Federal Standard H-28 (1978) Appendix A5, Section 3.</p> <p>In § 178.51-10 paragraph (d) would be revised to read as follows:</p> <p>§ 178.51-10 <i>Wall thickness.</i></p> <p>(d) For cylinders with a wall thickness less than 0.100 inch, the ratio of tangential length to outside diameter may not exceed 4.1. In § 178.61-10 paragraph (b) would be revised as follows:</p> <p>In § 178.61-10 <i>Wall thickness.</i></p> <p>(b) For cylinders with a wall thickness less than 0.100 inch, the ratio of tangential length to outside diameter may not exceed 4.1.</p> <p>In § 178.53-9(a) would be amended by changing 0.40 to read 0.04.</p> <p>In Part 178, § 178.54 would be removed in its entirety.</p>
§ 178.51-10(d) § 178.61-10(b)	At the present time, these two sections state that for cylinders with wall thicknesses less than 0.100 inch, the ratio of tangential length to outside diameter shall not exceed 4.0. The 4.0 does not apply consistently. It is not in Specification 4B and is not in any of the seamless cylinder specifications. Based on a request from a cylinder manufacturer, the RSPA is proposing to change the "4.0" to "4.1".	
§ 178.53-9(a)	Editorial correction. The wall thickness for DOT Specification 4D cylinders states that the minimum wall for any container having a capacity of 1.106 cubic inches or less is 0.40 inch. The RSPA proposes to correct the "0.40" to read "0.04".	
§ 178.54	To our knowledge, DOT Specification 4B240-FLW, welded or welded and brazed cylinders with fusion-welded longitudinal seams are not being made. At the time this specification was added to Part 178, Specification 4B/A was not available. Therefore, since the 4B240-FLW cylinder is no longer being made and the 4B/W cylinder is available, we are proposing to remove DOT Specification 4B240-FLW from Part 178. Part 173 would not be affected.	

Regulation affected	Reason(s) for proposed change	Proposed amendment
§ 178.245-1(a)	To remove the requirement that DOT Specification 51 portable tanks be postweld heat treated. Manufacturers of DOT-51 portable tanks, made for certain austenitic stainless steels, maintain that postweld heat treatment does not enhance the integrity of the tank. The ASME Code does not require postweld heat treatment on the particular type of steel because such treatment is not beneficial. RSPA agrees with the manufacturer's position.	<p>In § 178.245-1, the introductory text of paragraph (a) would be revised to read as follows:</p> <p>§ 178.245-1 <i>Requirements for design and construction</i></p> <p>(a) Tanks must be seamless or welded steel construction or combination of both and must have a water capacity in excess of 1,000 pounds. Fusion welded tanks must be postweld heat treated and radiographed to provide the highest joint efficiency provided by the ASME Code, except that postweld heat treatment of tanks made from austenitic stainless steel grades 304L, 316L, 321 and 347 shall be as required by the ASME Code. Tanks must be designed and constructed in accordance with and fulfill the requirements of the ASME Code. Tanks constructed in accordance with the requirements of Part UHT of the ASME Code must comply with the following additional requirements:</p>
§ 179.100-13(a)	The referenced paragraph discusses the bolting of venting, loading and unloading valves to seatings on manway covers. The AAR has requested that the word "directly" be removed because the present wording can be interpreted as prohibiting the use of intervening eductor pipe flange between a valve and a manway cover.	<p>In § 179.100-13, the second sentence in paragraph (a) would be revised to read as follows:</p> <p>§ 179.100-13 <i>Venting, loading and unloading valves, measuring and sampling devices.</i></p> <p>(a) * * * The valves shall be bolted to seatings on the manway cover, except as provided in § 179.103 * * *</p>
§ 179.100-14(a)(1), § 179.100-14(a)(3)	To improve railroad safety by (1) increasing the minimum allowable vertical clearance requirements for bottom outlets; (2) regulating the use of supplementary bottom outlet fittings; and (3) clarifying the requirement for bottom outlet and short breakage groove requirements.	<p>In § 179.100-14, paragraph (a)(1) and (a)(3) would be revised to read as follows:</p> <p>(a) * * *</p> <p>(1) The extreme projection of the bottom washout equipment may be no more than that allowed by Appendix E of the AAR Specifications for Tank Cars.</p> <p>(2) * * *</p> <p>(3) If the bottom washout nozzle extends 6 inches or more from shell of tank, a V-shaped breakage groove must be cut (not cast) in the upper part of the outlet nozzle at a point immediately below the lowest part of the inside closure seat or plug. In no case shall the nozzle wall thickness at the root of the "V" be more than 1/4-inch. Where the nozzle is not a single piece, provision must be made for the equivalent of the breakage groove. The nozzle must be of a thickness to insure that accidental breakage will occur at or below the "V" groove or its equivalent. On cars without continuous center sills, the breakage groove or its equivalent must not be more than 15 inches below the tank shell. On cars with continuous center sills, the breakage groove or its equivalent must be above the bottom of the center sill construction.</p>
§ 179.102-2(a)(3)	The Chlorine Institute has requested that this subparagraph be updated to allow the use of a new insulation package on future tank cars for chlorine. A fire test was conducted and the fire protection capability of the ceramic fiberglass fiber system is excellent and well below the targeted limit of 483 degrees F. Without sacrificing any other properties.	<p>In § 179.102-2, paragraph (a)(3) would be revised to read as follows:</p> <p>§ 179.102-2 <i>Chlorine.</i></p> <p>(a) * * *</p> <p>(3) Insulation must be 4 inches minimum thickness of corkboard or of self-extinguishing polyurethane foam or must be 2 inches minimum thickness of 4 pounds per cubic foot minimum density ceramic fiber covered by 2 inches minimum thickness of glass fiber.</p>
§ 179.102-13	To improve railroad safety by requiring that hydrogen fluoride tank cars be constructed of corrosion resistant materials.	<p>§ 179.102-13 would be revised to read as follows:</p> <p>§ 179.102-13 <i>Hydrofluoric acid, anhydrous.</i></p> <p>(a) Tank cars used to transport hydrofluoric acid, anhydrous, must comply with the following special requirements:</p> <p>(1) Bottom openings in tank are prohibited.</p> <p>(2) Plates for the tank shell, heads and manway must comply with Specification ASTM A516, Grade 70 normalized, or ASTM A537, Class 1.</p> <p>(3) Tanks must be postweld heat treated at 1,100 °F minimum, postweld heat treatment at the alternate lower temperatures listed in AAR Specifications for Tank Cars, Appendix W, is prohibited.</p> <p>(4) If welding or welded repairs are required on the tank shell, heads or manway nozzle after the tank is postweld heat treated, the tank or area repaired must be postweld heat treated again after the welding is completed. In such instances, the temperature must be controlled to provide protection for the adjacent metal to prevent a harmful temperature gradient.</p> <p>(5) The maximum hardness of the weld in the heat-affected zone may be no more than Brinell 237 (Rockwell C 22), measured on the production test plate on the cross section, after welding and final post-weld heat treatment.</p> <p>(6) Valves, valve parts, and other appurtenances normally in contact with the lading must comply with the National Association of Corrosion Engineers' Publication MR-01-75 and must be approved for hydrogen fluoride service. Ferritic stainless steels may not be used.</p> <p>(7) Safety relief valves must be in combination with either a breaking pin device or a frangible disc. See § 179.100-15(b) and (c).</p> <p>(8) Fasteners used in valve assemblies must conform to the National Association of Corrosion Engineers' Publication MR-01-75 and must be approved for hydrofluoric acid anhydrous. Ferritic stainless steels may not be used. Bolts and nuts used to fasten any valves or fittings to the cover plate or the cover plate to the manway ring must meet the following specifications:</p> <p>(a) Studs and bolts</p> <p>ASTM A-193-B7M or</p> <p>ASTM A-193-B7-maximum hardness may be no more than Brinell 237 (Rockwell C-22); or</p> <p>ASTM A-320-L7-maximum hardness may be no more than Brinell 237 (Rockwell C-22);</p> <p>(2) Nuts</p> <p>ASTM A-194-2M, or</p> <p>ASTM A-194-2-maximum hardness may be no more than Brinell 237 (Rockwell C-22);</p> <p>(9) Each tank must be marked "HYDROGEN FLOURIDE" in accordance with § 172.330.</p>

Regulation affected	Reason(s) for proposed change	Proposed amendment	
<p>§ 179.103-5(b)(1) § 179.103-5(b)(4)</p>	<p>To improve railroad safety</p>	<p>In § 179.103-5, paragraphs (b)(1) and (b)(4) would be revised to read as follows:</p> <p>(b) . . .</p> <p>(1) The extreme projection of the bottom outlet equipment may be no more than that allowed by Appendix E of the AAR Specifications for Tank Cars. All bottom outlet reducers and closures and their attachments must be secured to car by at least 3/8-inch chain, or its equivalent, except that bottom outlet closure plugs may be attached by 1/4-inch chain. When the bottom outlet closure is of the combination cap and valve type, the pipe connection to the valve must be closed by a plug, cap, or approved quick coupling device. The bottom outlet equipment should include only the valve, reducers and closures that are necessary for the attachment of unloading fixtures. The permanent attachment of supplementary exterior fittings must be approved by the Director, Office of Hazardous Materials Transportation.</p> <p>(4) If the outlet nozzle extends 6 inches or more from shell of tank, a V-shaped breakage groove must be cut (not cast) in the upper part to the outlet nozzle at a point immediately below the lowest part of valve closest to the tank. In no case shall the nozzle wall thickness at the root of the "V" be more than 1/4 inch. On cars without continuous center sills, the breakage groove or its equivalent must not be more than 15 inches below the tank shell. On cars with continuous center sills, the breakage groove or its equivalent must be above the bottom of the center sill construction.</p>	
<p>§ 179.200-7 Tables</p>	<p>The Association of American Railroads has requested that referenced section be amended to resolve the confusion that exists between the AAR Specification for Tank cars, Appendix M and the ASTM Specifications covering the variation of minimum elongation between the welded condition and the as rolled base metal.</p>	<p>In § 179.200-7, the third column of the Tables in paragraphs (b), (c), (d), (e), and (f) would be revised to read as follows:</p> <table border="1" data-bbox="1071 747 1177 852"> <tr> <td>Minimum elongation in 2 inches (percent) weld metal (longitudinal)</td> </tr> </table>	Minimum elongation in 2 inches (percent) weld metal (longitudinal)
Minimum elongation in 2 inches (percent) weld metal (longitudinal)			
<p>§ 179.200-13</p>	<p>The specifications for pressure tank car tanks recognize that many nozzle-to-tank joints are neither the butt nor lap-joint types (§ 179.100-12(a)). The specifications for non-pressure tank car tanks require that such joints be of the butt or lap-joint type (§ 179.200-13 (c)). The AAR has requested that the two sets of specifications be consistent.</p>	<p>In § 179.200, § 179.200-13 would be revised to read as follows:</p> <p>§ 179.200-13 <i>Manway ring or flange, safety relief device flange, bottom outlet nozzle flange, bottom washout nozzle flange and other attachments and openings.</i></p> <p>(a) These attachments shall be fusion welded to the tank and reinforced in an approved manner in compliance with the requirements of Appendix E, Figure 10 of the AAR Specifications for Tank cars.</p> <p>(b) The opening in the manway ring shall be at least 16 inches in diameter, except that acid resistant lined manways shall be at least 18 inches in diameter before lining.</p> <p>(c) The manway ring or flange, if welded to the dome or tank, shall be of cast, forged or fabricated steel, malleable iron, or other malleable metals.</p> <p>(d) The manway ring or flange, if welded to the dome, tank or nozzle, shall be made of cast, forged or fabricated metal. The metal of the dome, tank or nozzle shall be compatible with the manway ring or flange, so that they may be welded together.</p> <p>(e) The openings for the manway or other fittings shall be reinforced in an approved manner.</p>	
<p>§ 179.200-17 (a)(1), (a)(6), (a)(7), (b)(1) and (b)(3)</p>	<p>The AAR contends that the present wording is unclear and recommends these proposed changes.</p>	<p>In § 179.200-17, paragraphs (a)(1), (a)(6), (a)(7), (b)(1), and (b)(3) would be revised to read as follows:</p> <p>(a) . . .</p> <p>(1) The extreme projection of the bottom outlet equipment may be no more than that allowed by Appendix E of the AAR Specifications for Tank Cars. All bottom outlet reducers and closures and their attachments must be secured to the car by at least 3/8-inch chain, or its equivalent, except that the bottom outlet closure plugs may be attached by 1/4-inch chain. When the bottom outlet closure is of the combination cap and valve type, the pipe connection to the valve must be closed by a plug, cap, or approved quick coupling device. The bottom outlet equipment should include only the valve, reducers and closures that are necessary for the attachment of unloading fixtures. The permanent attachment of supplementary exterior fittings must be approved by the Director, Office of Hazardous Materials Transportation.</p> <p>(6) To provide for the attachment of unloading connections, the discharge end of the bottom outlet nozzle or reducer, the valve body of the exterior valve, or some fixed attachment thereto must be provided with one of the following arrangements or an approved modification thereof. (See Appendix E, Fig. E17 of the AAR Specifications for Tank Cars for illustrations of some of the possible arrangements.)</p> <p>(i) A bolted flange closure arrangement including a minimum 1-inch NPT pipe plug (see Fig. E17.1) or including an auxiliary valve with a threaded closure.</p> <p>(ii) A threaded cap closure arrangement including a minimum 1-inch NPT pipe plug (see Fig. E17.2) or including an auxiliary valve with a threaded closure.</p> <p>(iii) A quick-coupling device using a threaded plug closure of at least 1-inch NPT or having a threaded cap closure with a minimum 1-inch NPT pipe plug (see Fig. E17.3 through E17.5). A minimum 1-inch auxiliary test valve with a threaded closure may be substituted for the 1-inch pipe plug (see Fig. E17.6). If the threaded cap closure does not have a pipe plug or integral auxiliary test valve, a minimum 1-inch NPT pipe plug must be installed in the outlet nozzle above the closure (see Fig. E17.7).</p>	

Regulation affected	Reason(s) for proposed change	Proposed amendment
		<p>(4) A two-piece quick-coupling device using a clamped dust cap which must include an in-line auxiliary valve, either integral with the quick-coupling device or located between the primary bottom outlet valve and the quick-coupling device. The quick-coupling device closure dust cap or outlet nozzle must be fitted with a minimum 1-inch NPT closure (see Fig. E17.8 and E17.9).</p> <p>(7) If the outlet nozzle extends 6 inches or more from the shell of the tank, a V-shaped breakage groove must be cut (not cast) in the upper part of the outlet nozzle at a point immediately below the lowest part of valve closest to the tank. In no case shall the nozzle wall thickness at the root of the "V" be more than 1/4 inch. The outlet nozzle on interior valves or the valve body on exterior valves may be steam jacketed, in which case the breakage groove or its equivalent must be below the steam chamber but above the bottom of center sill construction. If the outlet nozzle is not a single piece, or if exterior valves are applied, provisions must be made for the equivalent of the breakage groove. On cars without continuous center sills, the breakage groove or its equivalent must be no more than 15 inches below the tank shell. On cars with continuous center sills, the breakage groove or its equivalent must be above the bottom of the center sill construction.</p> <p>(b) . . .</p> <p>1. The extreme projection of the bottom washout equipment may be no more than that allowed by Appendix E of the AAR Specifications for Tank Cars.</p> <p>(3) If the washout nozzle extends 6 inches or more from the shell of the tank, a V-shaped breakage groove must be cut (not cast) in the upper part of the nozzle at a point immediately below the lowest part of the inside closure seat or plug. In no case shall the nozzle wall thickness at the root of the "V" be more than 1/4 inch. Where the nozzle is not a single piece, provisions must be made for the equivalent of the breakage groove. The nozzle must be of a thickness to insure that accidental breakage will occur at or below the "V" groove or its equivalent. On cars without continuous center sills, the breakage groove or its equivalent must not be more than 15 inches below the outer shell. On cars with continuous center sills, the breakage groove or its equivalent must be above the bottom of the center sill construction.</p>
§ 179.202-8	See § 173.245(a) Note 2.	<p>In § 179.202, § 179.202-8, § 179.202-11, and § 179.202-16 would be revised to read as follows:</p> <p>§ 179.202-8 <i>Chloroacetyl chloride</i></p> <p>Tank cars used to transport chloroacetyl chloride must have a nickel cladding with a minimum thickness of 1/16 inch. Nickel cladding in tanks must have a minimum nickel content of at least 99 percent. Specification DOT-103ANW tank car tanks used to transport chloroacetyl chloride must be fabricated of nickel containing not more than 1 percent iron. Metal test coupons for welding procedure qualification must contain not more than 1 percent iron. All cast metal parts of the tank in contact with the lining must have a minimum nickel content of 96.7 percent.</p>
§ 179.202-13	Present wording requires phosphorus trichloride to be transported in certain lined tank cars. § 173.271(b)(11) does not require a lining for DOT 103A, 103AW, and 111A100F2 tank cars.	<p>In § 179.202-11 the second and third sentences would be revised to read as follows:</p> <p>§ 179.202-11 <i>Phosphorus oxybromide, phosphorus oxychloride, phosphorus trichloride, and thiophosphoryl chloride.</i></p> <p>Specification 103ANW tank cars used to transport phosphorus oxybromide, phosphorus oxychloride, phosphorus trichloride, and thiophosphoryl chloride, tanks must be fabricated of solid nickel containing not more than 1 percent iron. Metal test coupon for welding procedure qualification must contain not more than 1 percent iron. All cast metal parts of the tank in contact with the lining must have a minimum nickel content of approximately 96.7 percent. Specification 103A tank cars used to transport phosphorus trichloride must be lead-lined steel, or made of steel with a nickel cladding of at least 10 percent of the shell thickness. Specifications 103AW, 111A100F2, or 111A60W2 tank cars used to transport phosphorus trichloride must be lead-lined steel or made of steel with a minimum thickness of nickel cladding of 1/16 inch. Nickel cladding must have a minimum nickel content of at least 99 percent. Specification 103EW tank cars used to transport phosphorus trichloride and thiophosphoryl chloride must have tanks fabricated from Type 316 stainless steel. Unlined Specification 103A, 103AW, 111A100F2, or 111A100W2 tank cars are authorized for phosphorus trichloride only.</p>
§ 179.202-16	See § 173.245(a) Note 2.	<p>§ 179.202-16 <i>Chloroacetic acid, liquid</i></p> <p>(a) Tank cars used to transport Chloroacetic acid, liquid, must have tanks with nickel cladding of at least 20 percent of the shell thickness. Nickel cladding in tanks must have a minimum nickel content of at least 99 percent.</p> <p>(b) Chloroacetic acid, anhydrous, when shipped as a liquid must be shipped in Specification 103ANW tank car tanks fabricated of nickel containing not more than 1 percent iron, or in Specification 103AW or 111A60W2 tank car tanks with nickel cladding of at least 20 percent of the shell thickness, or be provided with a suitable corrosion resistant coating or lining. Metal test coupons for welding procedure qualification must contain not more than 1 percent iron. Nickel cladding in tanks must have a minimum nickel content of at least 99 percent.</p> <p>In § 179.202-18, paragraphs (a)(1), (a)(6), (b)(1), and (b)(3) would be revised to read as follows:</p> <p>(a) . . .</p> <p>(1) The extreme projection of the bottom outlet equipment may be no more than that allowed by Appendix E of the AAR Specifications for Tank Cars. All bottom outlet reducers and closures and their attachments must be secured to cars by at least 3/4-inch chain, or its equivalent, except that bottom outlet closure plugs may be attached by 1/4-inch chain. When the bottom outlet closure is of the combination cap and valve type, the pipe connection to the valve must be closed by a plug, or cap. The bottom outlet equipment should include only the valve, reducers and closures that are necessary for the attachment of unloading fixtures. The permanent attachment of supplementary exterior fittings must be approved by the Director, Office of Hazardous Materials Transportation.</p>

Regulation affected	Reason(s) for proposed change	Proposed amendment														
		<p>(6) If outlet nozzle and its closure extends below the bottom of the outer shell a V-shaped breakage groove must be cut (not cast) in the upper part of the outlet nozzle at a point immediately below the lowest part of the valve closest to the tank. In no case shall the nozzle wall thickness at the root of the "V" be more than 1/4 inch. The outlet nozzle or the valve body may be steam jacketed in which case the breakage groove or its equivalent must be below the steam chamber but above the bottom of the center sill construction. If the outlet nozzle is not a single piece or if exterior valves are applied, provision must be made for the equivalent of the breakage groove. On cars without continuous center sills, the breakage groove or its equivalent must not be more than 15 inches below the outer shell.</p> <p>(b) * * *</p> <p>1 The extreme projection of the bottom washout equipment may be no more than that allowed by Appendix E of the AAR Specifications for Tank Cars.</p> <p>(3) If washout nozzle extends below the bottom of the outer shell, a V-shaped breakage groove must be cut (not cast) in the upper part of the nozzle at a point immediately below the lowest part of the inside closure seat or plug. In no case shall the nozzle wall thickness at the root of the "V" be more than 1/4 inch. Where the nozzle is not a single piece, provisions must be made for the equivalent of the breakage groove. The nozzle must be of a thickness to insure that accidental breakage will occur at or below the "V" groove or its equivalent. On cars without continuous center sills, the breakage groove or its equivalent must not be more than 15 inches below the outer shell. On cars with continuous center sills, the breakage groove or its equivalent must be above the bottom of the center sill construction.</p>														
§ 179.220-19(c)	To make an exception for the use of safety vents on DOT 115A tank cars for the transportation of chloroprene. See § 179.222 for more information.	In § 179.220-19, paragraph (c) would be amended by changing the last sentence to read as follows:														
§ 179.221-1	To add a "Special reference" to the Table in § 179.221-1 for the 115A60W1 and 115A80W6 tank cars to coincide with the proposed change to § 179.222 for the transportation of chloroprene.	In § 179.221, the Table would be amended by adding an entry to read as follows:														
Special reference § 179.222-1 § 175.222-1	To authorize DOT 115A tank cars for the transportation of chloroprene to be equipped with safety vents instead of safety relief valves. Chloroprene is classed as a flammable liquid. Also, it is polymerizable and its vapor discharging through a relief valve orifice may condense, built up, and plug the orifice. A minimum safety vent diameter of 12 inches is being proposed.	<p>179.222-1</p> <p>In Part 179, a new section § 179.222 would be added to read as follows:</p> <p>§ 179.222. <i>Special commodity requirements for DOT 115A tank car tanks.</i></p> <p>In addition to § 179.220 and § 179.221, the following requirements are applicable:</p> <p>§ 179.222-1. <i>Chloroprene.</i></p> <p>DOT 115A tank car tanks used to transport chloroprene must be equipped with a safety vent with a diameter not less than 12 inches complying with § 179.221-1 instead of a safety relief valve. The outer shell shall be stenciled "CHLOROPRENE ONLY" on both sides in letters not less than 1 1/2 inches high.</p> <p>In § 179.301, the Table would be amended by adding the following:</p> <p>§ 179.301. <i>Individual specification requirements for multi-unit tank car tanks.</i></p> <p>(a) * * *</p>														
§ 179.301	To add a new DOT Specification 110A690-W to the list of authorized multi-unit tank car tanks.	<table border="1" data-bbox="828 1155 1429 1316"> <thead> <tr> <th data-bbox="828 1155 1274 1186">DOT specifications</th> <th data-bbox="1274 1155 1429 1186">110A690-W</th> </tr> </thead> <tbody> <tr> <td data-bbox="828 1197 1274 1228">Bursting pressure, psi (see 179.300-5)</td> <td data-bbox="1274 1197 1429 1228">1500</td> </tr> <tr> <td data-bbox="828 1228 1274 1260">Minimum thickness shell, inches</td> <td data-bbox="1274 1228 1429 1260">3/4</td> </tr> <tr> <td data-bbox="828 1260 1274 1291">Test pressure, psi (see § 179.300-16)</td> <td data-bbox="1274 1260 1429 1291">600</td> </tr> <tr> <td data-bbox="828 1291 1274 1323">Safety relief devices, psi (see § 179.300-15)</td> <td data-bbox="1274 1291 1429 1323">450</td> </tr> <tr> <td data-bbox="828 1323 1274 1354">Start-to-discharge or burst maximum psi</td> <td data-bbox="1274 1323 1429 1354">360</td> </tr> <tr> <td data-bbox="828 1354 1274 1386">Vapor tight, minimum psi</td> <td data-bbox="1274 1354 1429 1386"></td> </tr> </tbody> </table>	DOT specifications	110A690-W	Bursting pressure, psi (see 179.300-5)	1500	Minimum thickness shell, inches	3/4	Test pressure, psi (see § 179.300-16)	600	Safety relief devices, psi (see § 179.300-15)	450	Start-to-discharge or burst maximum psi	360	Vapor tight, minimum psi	
DOT specifications	110A690-W															
Bursting pressure, psi (see 179.300-5)	1500															
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Safety relief devices, psi (see § 179.300-15)	450															
Start-to-discharge or burst maximum psi	360															
Vapor tight, minimum psi																

¹ None specified.

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Alan I. Roberts,
Director, Office of Hazardous Materials Transportation.

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