



DEPARTMENT OF TRANSPORTATION  
HAZARDOUS MATERIALS REGULATIONS BOARD

WASHINGTON, D.C. 20590

15034

[Docket No. HM-105; Amdt. Nos. 172-25,  
173-80, 179-12]

**TANK CAR UTILIZATION**

On August 30, 1972, the Hazardous Materials Regulations Board ("the Board") published a notice of proposed rule making, Docket No. HM-105, Notice No. 72-11 (37 FR 17565), which proposed certain amendments. Interested persons were invited to give their views and several comments were received by the Board.

The purpose of these amendments to the Hazardous Materials Regulations of the Department of Transportation is to update and expand tank car utilization for hazardous materials as prescribed in Part 173. The following is a discussion of the substantive comments received and a statement of any changes made as a result of these comments.

§§ 172.5 and 173.245a. One commenter questioned the classification for dichlorobutene and suggested that it should be classed as a flammable liquid. Further examination by the Board revealed that confusion could exist as to the product being described. Therefore, the entry in the list of hazardous materials has been clarified by providing for dichlorobutene and dichlorobutene mixtures which are corrosive but do not meet the flammable liquid definition.

Another commenter noted that sodium perchlorate should be listed in § 172.5 since it was shown by name in § 173.154. The Board agrees and has so amended § 172.5.

§ 173.31(c)(10). The Board received both favorable and unfavorable comments on the proposal regarding the "test life" of safety relief valves taken from shelf stock. One commenter favored a one-year test life, whereby a safety relief valve from a stock which had been tested within one year of installation on a tank car could be considered, for purposes of installation, to have been tested or retested in the month in which it was installed. The Board proposed a six-month test life which it retains in the final rule. It agrees with one of the commenters who stated that resilient materials found on some valves may detrimentally harden or crack in longer storage and that six months seems to be a more adequate requirement to insure that the valve is in the "as tested" condition.

§§ 173.123(a)(5), 173.141(a)(7), and 173.145(a)(6). Commenters pointed out that present regulations do not authorize bottom unloading type equipment in these paragraphs and requested withdrawal of the proposals until a way is found to take care of what they call "a bottom outlet problem." The Board respects the concern of these commenters and agrees to delay authorizing use of bottom outlet tank cars for the chemicals covered by these sections.

§ 173.224. A commenter correctly pointed out that, as proposed by the Board, the addition of tertiary butyl hydroperoxide not exceeding 50 percent by weight in water to this section would not cover material in the percentages now being authorized under special permit. Therefore, the Board has withdrawn the proposal and intends to propose another change in some future docket, which will correctly describe the material to be authorized for shipment.

§ 173.314. The Board wishes to point out that although the table in § 173.314 has been amended to include 114A \* \* \* series cars for methyl chloride and vinyl chloride, another outstanding rule making (Docket HM-90, Notice No. 74-2, 39 FR 7432) affects the use of bottom outlets on these cars. If the Board adopts the action proposed in Notice No. 74-2, then modification of 114A \* \* \* series cars in methyl chloride and vinyl chloride service would ensue. The Board does not agree with one commenter's recommendation that all compressed gases should be prohibited from transportation in bottom outlet cars. It believes that this recommendation is unnecessarily too broad.

§ 173.347(a)(2). One commenter objected to authorizing 114A340W tank cars for aniline oil because of the bottom outlets on these cars. He stated that bottom outlet tank cars should not be authorized for this product. However, the Board notes that before the addition of DOT-114A340W tank cars to this section, other bottom outlet cars were already authorized. The rule-making ac-

tion did not propose the removal of the authorization to use these other tank cars. In addition, the car specification proposed to be added, DOT-114A340W, is a specification for a tank car built to more exacting requirements than what is presently authorized. No justification to warrant the commenter's recommended action was set forth. The Board wishes to point out that the complete matter of bottom outlets on tank cars for hazardous materials is under review. In this perspective, the subject continues to be under study. However, under these circumstances, it does not appear to be reasonable to prohibit use of tank cars of superior design and construction to those already authorized.

A number of other comments were made in this docket suggesting changes in subject matters not within the scope of the proposals set forth in Notice No. 72-11. Since these proposed changes were not available to the public for comment, they were not considered in this rule making action.

In consideration of the foregoing, 49 CFR Parts 172, 173, and 179 are amended as follows:

**PART 172—LIST OF HAZARDOUS MATERIALS CONTAINING THE SHIPPING NAME OR DESCRIPTION OF ALL MATERIALS SUBJECT TO PARTS 170-189 OF THIS SUBCHAPTER**

1. In § 172.5 paragraph (a), the List of Hazardous Materials is amended as follows:

**§ 172.5 List of hazardous materials.**

(a) \* \* \*

| Article   | Classed as— | Exemptions and packing (see sec.) | Label required if not exempt | Maximum quantity in 1 outside container by rail express |
|---|-------------|-----------------------------------|------------------------------|---|
| (add)<br>Dichlorobutene or dichlorobutene mixture (of isomers) (not meeting § 173.116). | Cor.....    | 173.244<br>173.245<br>173.245a    | Corrosive.....               | 5 pints.  |
| Sodium perchlorate.....   | Oxy M.....  | 173.153<br>173.154                | Oxy.....                     | 100 pounds.   |

**PART 173—SHIPPERS**

2. In Part 173 Table of Contents, § 173.247 is amended as follows:

Sec.  
173.247 Acetic anhydride; Acetyl bromide; Acetyl chloride; Acetyl iodide; Antimony pentachloride; Benzoyl chloride; Boron trifluoride-acetic acid complex; Chromyl chloride; Dichloroacetyl chloride; Diphenylmethyl bromide solutions; Pyro sulfur chloride; Silicon chloride; Sulfur chloride (mono and di); Sulfuryl chloride; Thionyl chloride; Tin tetrachloride (anhydrous); Titanium tetrachloride; Trimethyl acetyl chloride.

3. In § 173.31, paragraphs (c) (7) and (10) are amended to read as follows:

§ 173.31 Qualification, maintenance, and use of tank cars.

(c) \* \* \*  
(7) A DOT tank car built to one speci-

fication and authorized to be stenciled to another specification must be retested in accordance with the higher specification and the test pressure stenciled accordingly on the tank or jacket. An existing pressure tank car tank which is permanently converted to a lower pressure specification must have the new specification and conversion date permanently stamped in letters and figures at least 3/8-inch high on the outside of the manway nozzle or the edge of the manway nozzle flange on the left side of the car. Each car must be tested as designated in Retests Table 1 for the new specification. On a Class DOT-111A tank car, the last numeral of the specification number may be omitted from the stamping.

(10) The year of the test of any tank, tank safety relief valve, and heater system, and the pressure to which it was tested must be stenciled on the tank or



on the jacket if insulated, except that if a retest is required specifically by the regulations during the calendar month the retest falls due, the month and year must be so stenciled. Any safety relief valve from a stock which has been tested within six months of installation may be considered as having been tested or retested in the month in which installed, providing the valve has been protected from deterioration during this period.

4. In § 173.119 paragraph (a)(12), "109A300W" is added immediately following 109A100ALW in the first sentence; paragraphs (e) (2), (f) (3), and (4), and the introductory text of paragraph (h) are amended to read as follows:

§ 173.119 Flammable liquids not specifically provided for.

(e) \* \* \*

(2) Specification 103,<sup>1</sup> 103W, 103LW, 103DW, 104,<sup>1</sup> 104W, 105A100,<sup>1</sup> 105A100-ALW, 105A100W, 106A500X, 106A800-XNC, 106A800NCI,<sup>1</sup> 109A100ALW, 109A-300W, 110A500W, 111A60ALW1, 111A60-F1, 111A60W1, 111A100W4, 111A100W6, 112A200W, 112A400F, 114A340W, 115A-60W1, 115A60W6, 115A60ALW, ARA-III,<sup>1</sup> ARA-IV,<sup>1</sup> or ARA-IV-A<sup>1</sup> (§§ 179.100, 179.101, 179.200, 179.201, 179.220, 179.221, 179.300, 179.301 of this subchapter). Tank cars. Any car having an expansion dome must be equipped with a manway closure identification marks, and dome placards as prescribed in paragraphs (f) (4), (g), and (h) of this section. Openings in tank heads to facilitate application of lining are authorized and must be closed in an approved manner (Note 1 following paragraph (f) (3) of this section applies).

(f) \* \* \*

(3) Specification 105A100,<sup>1</sup> 105A100-ALW, 105A100W, 106A500X, 106A800-XNC, 106A800NCI,<sup>1</sup> 109A100ALW, 109A-300W, 110A500W, 111A100W4, 112A-200W, 112A400F, 114A340W, or ARA-IV-A<sup>1</sup> (§§ 179.100, 179.101, 179.200, 179.201, 179.300, 179.301 of this subchapter), (see Note 1 of this subparagraph). Tank cars. Specification 104,<sup>1</sup> 104W, 111A100W3, and ARA-IV<sup>1</sup> (§§ 179.200, 179.201 of this subchapter), tank cars are authorized under the conditions prescribed in paragraphs (f) (4), (g), and (h) of this section and Note 3 of this subparagraph. Openings in tank heads to facilitate application of lining are authorized and must be closed in an approved manner. (Notes 1, 2, and 3 remain the same.)

(4) Specification 103,<sup>1</sup> 103W, 103ALW, 104,<sup>1</sup> 104W, 111A60ALW1, 111A60F1, 111A60W1, 115A60W1, 115A60W6, 115A-60ALW, ARA-111,<sup>1</sup> or ARA-IV<sup>1</sup> (§§ 179.200, 179.201, 179.220, 179.221 of this subchapter). Tank cars. Each car must have its manway closure equipped with approved safeguards making the removal

<sup>1</sup>The use of existing tank cars authorized but new construction not authorized.

of the closure from the manway opening practically impossible while the car interior is subjected to vapor pressure of lading. The car must be stenciled on each side of the dome in line with the ladders, and in a color contrasting to the color of the dome, with identification marks as prescribed in paragraph (g) of this section.

(h) *Dome placards.* Specification 103,<sup>1</sup> 103ALW, 103W, 104,<sup>1</sup> 104W, 111A60ALW1, 111A60F1, 111A60W1, 115A60W1, 115A-60W6, 115A60ALW, ARA-III,<sup>1</sup> or ARA-IV<sup>1</sup> (§§ 179.200, 179.201, 179.220, 179.221 of this subchapter). Tank cars. Each car loaded with any material described in paragraph (e) or (f) of this section must, in addition to the "Dangerous" placards, be protected by special dome placards, at least 4 7/8 by 10 7/8 inches, with legible wording as follows:

5. In § 173.123, paragraph (a)(5) is amended to read as follows:

§ 173.123 Ethyl chloride.

(a) \* \* \*

(5) Specification 105A100, 105A100W, 111A100W4, 112A200W, 112A400F, 114A340W, or ARA-IV-A<sup>1</sup> (§§ 179.100, 179.101 of this subchapter). Tank cars. Specification 114A340W tank cars must not be equipped with any bottom outlet. Bottom washout permitted. See Note 1 following § 173.119(f) (3). (See § 173.432 for shipping instructions.)

6. In § 173.141, paragraph (a)(7) is amended to read as follows:

§ 173.141 Amyl mercaptan, butyl mercaptan, ethyl mercaptan, isopropyl mercaptan, propyl mercaptan, and aliphatic mercaptan mixtures.

(a) \* \* \*

(7) Specification 103W, 105A100,<sup>1</sup> 105A100W, 106A500X, 110A500W, 111A-60F1, 111A60W1, 112A200W, 112A400F, or 114A340W (§§ 179.100, 179.101, 179.200, 179.201 of this subchapter). Tank cars. Specifications 103W, 111A60F1, 111A-60W1, and 114A340W tank cars must not be equipped with any bottom outlet. Bottom washout permitted.

7. In § 173.145, paragraph (a)(6) is amended to read as follows:

§ 173.145 Dimethylhydrazine, unsymmetrical, and methylhydrazine.

(a) \* \* \*

(6) Specification 103W, 103CW, 105A100W, 111A60W1, 111A60W7, or 111A100W4 (§§ 179.100, 179.101, 179.200, 179.201 of this subchapter). Tank cars. Authorized for dimethylhydrazine, unsymmetrical only. Each tank car must be equipped with steel safety valves of approved design and any 103W or 111A\*\*\* tank car must not be equipped with any bottom outlet. Bottom washout permitted. Specification 105A200W, 105A300W, 105A400W, 105A500W, and 105A600W (§§ 179.100, 179.101 of this subchapter)

<sup>1</sup>The use of existing tank cars authorized but new construction not authorized.

tanks must be restenciled 105A100W and be equipped with safety valves of the type and size used on specification 105A100W tank cars.

8. In § 173.154, paragraph (a)(15) is added to read as follows:

§ 173.154 Flammable solids and oxidizing materials not specifically provided for.

(a) \* \* \*

(15) Specification 103,<sup>1</sup> 103W, 111A-60W1, or 111A60F1 (§§ 179.200, 179.201 of this subchapter). Tank cars. Authorized only for sodium perchlorate or magnesium perchlorate wet with 10 percent or more water equally distributed.

9. In § 173.245a paragraph (a), the table and footnote 2 are amended as follows:

§ 173.245a Corrosive liquids, n.o.s. shipped in bulk.

(a) \* \* \*

| Corrosive liquid   | Authorized tank car  | Authorized portable tank <sup>2</sup> |
|--|----------------------|---------------------------------------|
| (add)<br>Dichlorobutene and Dichlorobutene mixtures.....     | 105A300W<br>112A340W | -----                                 |
| (change)<br>Ethyl phosphonothioic dichloride, anhydrous..... | 103AW<br>111A60W2    | DOT-51.                               |

\* Specification 103ANW tank car tank must be solid nickel at least 99 percent pure; all cast metal parts of the tank in contact with the lading must have a minimum nickel content of approximately 96.7 percent. Specification 103A tank car tanks must be lead-lined steel or must be made of steel at least 10 percent nickel clad; specification 103AW, 111A100F2, or 111A60W2 tank must be lead-lined steel or made of steel with a minimum thickness of nickel cladding 1/16 inch; nickel cladding in tanks must have a minimum nickel content at least 99 percent pure nickel.

10. In § 173.247, the heading and the introductory text of paragraph (a), and paragraphs (a) (13) and (14) are amended to read as follows:

§ 173.247 Acetic anhydride; Acetyl bromide; Acetyl chloride; Acetyl iodide; Antimony pentachloride; Benzoyl chloride; Boron trifluoride-acetic acid complex; Chromyl chloride; Dichloroacetyl chloride; Diphenylmethyl bromide solutions; Pyro sulfur chloride; Silicon chloride; Sulfur chloride (mono and di); Sulfuryl chloride; Thionyl chloride; Tin tetrachloride (anhydrous); Titanium tetrachloride; Trimethyl acetic chloride.

(a) Acetic anhydride, acetyl bromide, acetyl chloride, acetyl iodide, antimony pentachloride; benzoyl chloride, boron trifluoride-acetic acid complex, chromyl chloride, dichloroacetyl chloride, diphenylmethyl bromide solutions, pyro sulfur chloride, silicon chloride, sulfur

<sup>1</sup>The use of existing tanks authorized but new construction not authorized.



chloride (mono and di), sulfuryl chloride, thionyl chloride, tin tetrachloride (anhydrous), titanium tetrachloride, and trimethyl acetic chloride must be packaged in specification packagings as follows:

(13) Specification 103A,<sup>1</sup> 103AW, 105A300W, 111A60W2, or 111A100F2 (§§ 179.100, 179.101, 179.200, 179.201 of this subchapter) tank cars, except that for tin tetrachloride (anhydrous) specification 105A300W tank cars must be used.

(14) Specification 103A,<sup>1</sup> 103AW, 111A60W2, or 111A100F2 (§§ 179.200, 179.201 of this subchapter). Tank cars. Authorized for titanium tetrachloride, anhydrous only. Tank cars must have safety valves of approved design and not subject to rapid deterioration by the lading.

11. In § 173.248, paragraph (a) (4) is amended to read as follows:

§ 173.248 Acid sludge, sludge acid, spent sulfuric acid, or spent mixed acid.

(4) Specification 103A,<sup>1</sup> 103AW, 111A60W2, or 111A100F2 (§§ 179.200 and 179.201 of this subchapter). Tank cars, provided the product is sufficiently liquid to be unloaded through the dome or manway. Tanks which do not contain products or contaminants that give off noxious or flammable vapors may be equipped with safety vents incorporating lead discs having a 1/8-inch breather hole in the center thereof.

12. In § 173.249 paragraph (a) (5) is amended to read as follows:

§ 173.249 Alkaline corrosive liquids, n.o.s.; Alkaline caustic liquids, n.o.s.; Alkaline corrosive battery fluids; Potassium fluoride solutions; Potassium hydrogen fluoride solutions; Sodium aluminate, liquid.

(5) Specification 103,<sup>1</sup> 103W, 103A,<sup>1</sup> 103AW, 103B,<sup>1</sup> 103BW, 104,<sup>1</sup> 104W, 105A100,<sup>1</sup> 105A100W, 111A60F1, 111A60W1, 111A60W2, 111A100F2, 111A60W5, or 111A100W4 (§§ 179.100, 179.101, 179.200, 179.201 of this subchapter). Tank cars.

13. In § 173.253, paragraph (a) (7) is amended to read as follows:

§ 173.253 Chloroacetyl chloride.

(7) Specification 103AW, 111A60W2, or 111A100F2 (§§ 179.200, 179.201 of this subchapter). Tank cars. Tanks must have a nickel cladding of 1/16-inch minimum thickness. Nickel cladding in tanks must have a minimum nickel content of at least 99 percent pure nickel.

<sup>1</sup>The use of existing tanks authorized but new construction not authorized.

14. In § 173.254, paragraph (a) (4) is amended to read as follows:

§ 173.254 Chlorosulfonic acid and mixtures of chlorosulfonic acid-sulfur trioxide.

(4) Specification 103A,<sup>1</sup> 103AW, 103CW, 103EW, 111A60W2, 111A60W7, or 111A100F2 (§§ 179.200, 179.201 of this subchapter). Tank cars.

15. In § 173.262, paragraph (a) (6) is amended to read as follows:

§ 173.262 Hydrobromic acid.

(6) Specification 103B,<sup>1</sup> 103BW, or 111A60W5 (§§ 179.200, 179.201 of this subchapter). Tank cars.

16. § 173.263, paragraphs (a) (9) and (12) are amended to read as follows.

§ 173.263 Hydrochloric (muriatic) acid, hydrochloric (muriatic) acid mixtures, hydrochloric (muriatic) acid solution, inhibited, sodium chlorite solution (not exceeding 42 percent sodium chlorite), and cleaning compounds, liquid, containing hydrochloric (muriatic) acid.

(9) Specification 103B,<sup>1</sup> 103BW, or 111A60W5 (§§ 179.200, 179.201 of this subchapter). Tank cars. Authorized for acid not over 38 percent strength by weight. A safety vent of approved design equipped with frangible disc having 1/8-inch breather hole in center thereof or a safety vent of approved design equipped with carbon discs permitting continuous venting may be used, but may not be used for hydrochloric (muriatic) acid of 22° Baume strength, and other fuming acids. (Note 1 remains the same.)

(12) Specification 103CW, 111A60W7 (§§ 179.200 and 179.201 of this subchapter). Tank cars having tanks of type 304L stainless steel. Authorized for sodium chlorite solution not exceeding 42 percent sodium chlorite only.

17. In § 173.264, paragraphs (a) (8), (11), and (b) (2) are amended to read as follows:

§ 173.264 Fluoboric acid; Hydrofluoric acid; White acid.

(8) Specification 103A,<sup>1</sup> 103AW, 105A100,<sup>1</sup> 105A100W, 111A60W2, 111A100F2, 111A100W4, or ARA-IV<sup>1</sup> (§§ 179.100, 179.101, 179.102, 179.200, 179.201 of this subchapter) unlined metal tanks which have been subjected to adequate passivity or neutralization process. (See Note 1 to paragraph (a) (7) of this section.) Authorized only for acid of 60 to 80 percent strength. If tanks are washed out with

<sup>1</sup>The use of existing tanks authorized but new construction not authorized.

water they must be resubjected to passivity before reshipment.

(Note 1 remains the same.)

(11) Specification 103B,<sup>1</sup> 103BW, or 111A60W5 (§§ 179.200, 179.201 of this subchapter). Tank cars, rubber-lined tanks. Authorized only for acid not over 40 percent strength.

(2) Specification 105A300W, 112A400W, 114A400W, or ARA-V<sup>1</sup> (§§ 179.100, 179.101 of this subchapter). Tank cars equipped with special valves and appurtenances approved for this particular service. Filling density must not exceed 90 percent of the pounds water weight capacity of the tank. For Specification 114A400W tanks, valves and fittings must be located on top of the tank. Bottom openings in tank prohibited.

18. In § 173.265, paragraph (b) (3) is amended to read as follows:

§ 173.265 Hydrofluosilicic acid.

(3) Specification 103B,<sup>1</sup> 103BW, or 111A60W5 (§§ 179.200, 179.201 of this subchapter). Tank cars, rubber-lined tanks.

19. In § 173.266, paragraph (f) (1) is amended to read as follows:

§ 173.266 Hydrogen peroxide solution in water.

(1) Specification 103A-ALW or 111A60ALW2 (§§ 179.200, 179.201 of this subchapter). Tank cars. Venting arrangements must be approved by the Department.

20. In § 173.267, paragraph (a) (3) is amended to read as follows:

§ 173.267 Mixed acid (nitric and sulfuric acid) (nitrating acid).

(3) Specification 103A,<sup>1</sup> 103AW, 111A60W2, or 111A100F2 (§§ 179.200, 179.201 of this subchapter). Tank cars. (See paragraph (b) of this section.)

21. In § 173.268, paragraphs (b) (1) and (c) (2) are amended to read as follows:

§ 173.268 Nitric acid.

(1) Specification 103CW or 111A60W7 (§§ 179.200, 179.201 of this subchapter). Tank cars.

(2) Specification 103A-ALW or 111A60ALW2 (§§ 179.200, 179.201 of this subchapter). Tank cars.



22. In § 173.271, paragraphs (a) (9) and (11) are amended to read as follows:

§ 173.271 Phosphorus oxybromide, phosphorus oxychloride, phosphorus trichloride, and thiophosphoryl chloride.

(a) \* \* \* (9) Specification 103A,<sup>1</sup> 103AW, 111A-60W2, or 111A100F2 (§§ 179.200, 179.201 of this subchapter). Tank cars. Specification 103A,<sup>1</sup> tanks must be lead-lined steel or made of steel at least 10 percent nickel clad. Specification 103AW, 111A-60W2, or 111A100F2 tanks must be lead-lined steel or made of steel with a minimum thickness of nickel cladding 1/16-inch. Nickel cladding in tanks must have a minimum nickel content of at least 99 percent pure nickel.

(11) Specification 103A,<sup>1</sup> 103AW, 111A-60W2, or 111A100F2 (§§ 179.200, 179.201 of this subchapter). Tank cars. Authorized for phosphorus trichloride only.

23. In § 173.272, paragraphs (i) (22), (26), and (27) are amended to read as follows:

§ 173.272 Sulfuric acid.

(i) \* \* \* (22) Specification 103A,<sup>1</sup> 103AW, 111A-60W2, or 111A100F2 (§§ 179.200, 179.201 of this subchapter). Tank cars. Authorized for sulfuric acid of concentrations 65.25 percent or greater concentrations, provided the corrosive effect in steel is not greater than that of 65.25 percent sulfuric acid, measured at 100°F. Tank cars used for sulfuric acid, mixed acid (nitric and sulfuric acids) (nitrating acid), and other fuming acids, may be equipped with safety vents incorporating frangible discs having a 1/8-inch breather hole in their center. The 1/8-inch breather hole is not permitted in frangible discs of safety vents on oleum tank cars.

(26) Specification 103B,<sup>1</sup> 103BW, or 111A60W5 (§§ 179.200, 179.201 of this subchapter). Lined tank cars.

(27) Specification 103AW, 111A100F2, or 111A60W2 (§§ 179.200, 179.201 of this subchapter). Tank cars having tanks equipped with a phenolic lining impervious to the lading.

24. In § 173.273, paragraph (a) (4) is amended to read as follows:

§ 173.273 Sulfur trioxide, stabilized.

(a) \* \* \* (4) Specification 103A,<sup>1</sup> 103AW, 105A-100W, 111A60W2, or 111A100F2 (§§ 179.100, 179.101, 179.200, 179.201 of this subchapter). Tank cars. Authorized only for stabilized sulfur trioxide. Tank cars must have safety valves of approved design and not subject to rapid deteriora-

<sup>1</sup> The use of existing tanks authorized but new construction not authorized.

tion by the lading. Cars equipped with interior heater coils not permitted.

25. In § 173.274, paragraph (a) (3) is amended to read as follows:

§ 173.274 Fluosulfonic acid.

(a) \* \* \* (3) Specification 103A,<sup>1</sup> 103AW, 111A-60W2, or 111A100F2 (§§ 179.200, 179.201 of this subchapter). Tank cars.

26. In § 173.276, paragraphs (a) (4) and (5) are amended to read as follows:

§ 173.276 Anhydrous hydrazine and hydrazine solution.

(a) \* \* \* (4) Specification 103CW, 111A60W7, or 111A100W6 (§§ 179.200, 179.201 of this subchapter). Tank cars having tanks of Type 304L or 347 stainless steel with molybdenum content not exceeding one-half of 1 percent. The safety relief valve on specification 103CW tank car tanks may have a start-to-discharge pressure of not more than 45 p.s.i. in place of 35 p.s.i. Specification 111A100W6 tank cars must not be equipped with bottom outlet. Bottom washout permitted. Vapor space in tanks must be filled with nitrogen gas at atmospheric pressure.

(5) Specification 103A-ALW or 111A60ALW2 (§§ 179.200, 179.201 of this subchapter). Tank cars. The safety relief valve on tanks may not have a start-to-discharge pressure of more than 45 p.s.i. in place of 35 p.s.i. Vapor space in tanks must be filled with nitrogen gas at atmospheric pressure. Authorized for anhydrous hydrazine only.

27. In § 173.280, paragraph (a) (7) is amended to read as follows:

§ 173.280 Allyl trichlorosilane; Amyl trichlorosilane; Butyl trichlorosilane; Chlorophenyl trichlorosilane; Cyclohexenyl trichlorosilane; Cyclohexyl trichlorosilane; Dichlorophenyl trichlorosilane; Diethyl dichlorosilane; Diphenyl dichlorosilane; Dodecyl trichlorosilane; Ethyl phenyl dichlorosilane; Hexadecyl trichlorosilane; Hexyl trichlorosilane; Nonyl trichlorosilane; Octadecyl trichlorosilane; Octyl trichlorosilane; Phenyl trichlorosilane, and Propyl trichlorosilane.

(a) \* \* \* (7) Specification 103W, 103A,<sup>1</sup> 103AW, 105A100,<sup>1</sup> 105A100W, 111A60F1, 111A60W1, 111A60W2, 111A100F2, or 111A100W4 (§§ 179.100, 179.101, 179.200, 179.201 of this subchapter). Tank cars.

28. In § 173.291, paragraph (a) (8) is amended to read as follows:

§ 173.291 Flame retardant compound liquid.

(a) \* \* \* (8) Specification 103B,<sup>1</sup> 103BW, or

<sup>1</sup> The use of existing tanks authorized but new construction not authorized.

111A60W5 (§§ 179.200, 179.201 of this subchapter). Tank cars.

29. In § 173.294, paragraph (a) (2) and (b) are amended to read as follows:

§ 173.294 Monochloroacetic acid, liquid.

(a) \* \* \* (2) Specification 103ANW, 103AW, 111A60W2, or 111A100F2 (§§ 179.200, 179.201 of this subchapter). Tank cars. Specification 103AW, 111A60W2, or 111A100F2 tank cars must be nickel clad at least 20 percent.

(b) Monochloroacetic acid, anhydrous, when shipped as a liquid must be shipped in specification 103ANW fabricated of 99 percent pure nickel or in specification 103AW or 111A60W2, nickel clad at least 20 percent or be provided with a suitable corrosive resistant coating or lining.

30. In § 173.295, paragraphs (a) (11) and (12) are amended to read as follows:

§ 173.295 Benzyl chloride.

(a) \* \* \* (11) Specification 103A,<sup>1</sup> 103AW, 111A60W2, or 111A100F2 (§§ 179.200, 179.201 of this subchapter). Tank cars.

(12) Specification 103ANW (§§ 179.200, 179.201 of this subchapter). Tank cars. All cast metal parts of the tank in contact with the lading must have a minimum nickel content of approximately 96.7 percent. When shipped in unstabilized condition, the lading must be anhydrous and must be free from impurities such as iron.

31. In § 173.296, paragraph (a) (3) is amended to read as follows:

§ 173.296 Di iso octyl acid phosphate.

(a) \* \* \* (3) Specification 103AW, 103CW, 103EW, 111A60W2, 111A60W7, or 111A100F2 (§§ 179.200, 179.201 of this subchapter). Tank cars.

32. In § 173.297, paragraph (a) (2) is amended to read as follows:

§ 173.297 Titanium sulfate solution containing not more than 45 percent sulfuric acid.

(a) \* \* \* (2) Specification 103B,<sup>1</sup> 103BW, or 111A60W5 (§§ 179.200, 179.201 of this subchapter). Tank cars.

33. In § 173.314 paragraph (c), the table is amended as follows:

§ 173.314 Requirements for compressed gases in tank cars.

(c) \* \* \*

<sup>1</sup> The use of existing tanks authorized but new construction not authorized.



| Kind of gas  | Maximum permitted filling density, Note 1 | Required tank car see § 173.31(a) (2) and (3) |
|--|---|---|
| (change)   | Percent                                   |   |
| Dichlorodifluoromethane; Note 13   | 119                                       | DOT-106A500X, 110A500W, Note 7.               |
|  | 125                                       | DOT-105A300W.                                 |
| Dichlorodifluoromethane and difluoroethane mixture (constant boiling mixture); Note 13.        | 123                                       | DOT-112A340W, 114A340W.                       |
|  | Note 22                                   | DOT-106A500X, 110A500W, Note 7.               |
|  |   | DOT-105A300W.                                 |
| Dichlorodifluoromethane-monochlorodifluoromethane mixture; Note 13.                            | Note 21                                   | DOT-112A340W, 114A340W.                       |
|  | 119                                       | DOT-106A500X, 110A500W, Note 7.               |
|  | 125                                       | DOT-105A300W.                                 |
| Dichlorodifluoromethane-monofluorotrichloromethane mixture; Note 13.                           | 123                                       | DOT-112A340W, 114A340W.                       |
|  | Note 22                                   | DOT-106A500X, 110A500W, Note 7.               |
|  |   | DOT-105A300W.                                 |
| Dichlorodifluoromethane-trichloromonofluoromethane-monochlorodifluoromethane mixture; Note 13. | Note 21                                   | DOT-112A340W, 114A340W.                       |
|  | 119                                       | DOT-106A500X, 110A500W, Note 7.               |
|  | 125                                       | DOT-105A300W.                                 |
| Dichlorodifluoromethane-trichlorotrifluoroethane mixture; Note 13.                             | 123, Note 21                              | DOT-112A340W, 114A340W.                       |
|  | 119                                       | DOT-106A500X, 110A500W, Note 7.               |
|  | 125                                       | DOT-105A300W.                                 |
| Methyl chloride  | 123                                       | DOT-112A340W, 114A340W.                       |
|  | 84  | DOT-106A500X, Note 7.                         |
|  | 85  | DOT-112A340W, Note 4.                         |
|  | 86  | DOT-106A300W, Note 4.                         |
| Vinyl chloride, Note 9   | 84  | DOT-106A500X, Note 7.                         |
|  | 87  | DOT-105A200W, Notes 4 and 16.                 |
|  | 86  | DOT-112A340W, 114A340W, Note 4.               |

34. In § 173.346, paragraph (a) (10) is amended to read as follows:

§ 173.346 Poisonous liquids not specifically provided for.

(a) \* \* \*

(10) Specification 103,<sup>1</sup> 103W, 103A,<sup>1</sup> 103ALW, 103AW, 104,<sup>1</sup> 104W, 105A100,<sup>1</sup> 105A100W, 111A60ALW1, 111A60F1, 111A60W1, 111A60W2, 111A100F2, 111A100W4, 115A60W6, or ARA-IV-A<sup>1</sup> (§§ 179.100, 179.101, 179.200, 179.201, 179.220, 179.221 of this subchapter). Tank cars.

35. In § 173.347, paragraph (a) (2) is amended to read as follows:

§ 173.347 Aniline oil.

(a) \* \* \*

(2) Specification 103,<sup>1</sup> 103W, 103A,<sup>1</sup> 103AW, 104W, 105A100W, 111A60F1, 111A60W1, 111A60W2, 111A100F2, 112A200W, 112A400F, 114A340W (§§ 179.100, 179.101, 179.200, 179.201 of this subchapter). Tank cars.

36. In § 173.352, paragraph (a) (4) is amended to read as follows:

§ 173.352 Liquid sodium or potassium cyanide.

(a) \* \* \*

(4) Specification 103,<sup>1</sup> 103W, 103A,<sup>1</sup> 103AW, 111A60F1, 111A60W1, 111A60W2, 111A100F2 (§§ 179.200, 179.201 of this subchapter). Tank cars.

37. In § 173.365, paragraph (a) (13) is amended to read as follows:

§ 173.365 Poisonous solids not specifically provided for.

(a) \* \* \*

(13) Specification 103,<sup>1</sup> 103W, 103A,<sup>1</sup> 103AW, 111A60F1, 111A60W1, 111A60W2,

or 111A100F2 (§§ 179.200, 179.201 of this subchapter). Tank cars.

38. In § 173.369, the introductory text of paragraph (a) (13) is amended to read as follows:

§ 173.369 Carboic acid (phenol), not liquid.

(a) \* \* \*

(13) Specification 103,<sup>1</sup> 103W, 103ALW, 103A,<sup>1</sup> 103AW, 103A-ALW, 111A60ALW1, 111A60F1, 111A60W1, 111A60W2, 111A100F2, or 115A60W6 (§§ 179.200, 179.201, 179.220, 179.221 of this subchapter). Tank cars.

39. In § 173.392, paragraph (d) (2) (1) is amended to read as follows:

§ 173.392 Low specific activity radioactive material.

(d) \* \* \*

(2) \* \* \*

(1) Specification 103CW, 111A60W7 (§§ 179.200, 179.201, 179.202 of this subchapter) tank cars. Bottom openings in tanks prohibited.

#### PART 179—SPECIFICATIONS FOR TANK CARS

40. In § 179.100-8, paragraph (b) is added to read as follows:

§ 179.100-8 Tank heads.

(b) Each tank head made from steel which is required to be "fine grain" by the material specification, which is hot formed at a temperature exceeding 1700°F., must be normalized after forming by heating to a temperature between 1550° and 1700°F., by holding at that temperature for at least 1 hour per inch of thickness (30-minute minimum), and then by cooling in air. If the material specification requires quenching and tempering, the treatment specified in that specification must be used instead of the one specified above.

<sup>1</sup>The use of existing tanks authorized but new construction not authorized.

41. The material now contained in § 179.202-16 is redesignated paragraph (a) and paragraph (b) is added to read as follows:

§ 179.202-16 Monochloroacetic acid, liquid.

\* \* \*

(b) Monochloroacetic acid anhydrous, when shipped as a liquid must be shipped in Specification 103ANW fabricated of 99 percent pure nickel or in 103AW or 111A60W2 nickel clad at least 20 percent provided with a suitable corrosion resistant coating or lining.

This amendment is effective September 30, 1974. However, compliance with the regulations, as amended herein, is authorized immediately.

(Transportation of Explosives Act, 18 U.S.C. 831-835, section 6 of the Department of Transportation Act, 49 U.S.C. 1655; Title VI and section 902(h) of the Federal Aviation Act of 1958, 49 U.S.C. 1421-1430, 1472(h), and 1655(c); Dangerous Cargo Act, as amended, 46 U.S.C. 170; Tank Vessel Act of 1936, 46 U.S.C. 391a, 46 U.S.C. 375, 46 U.S.C. 416, 49 U.S.C. 1655(b) (1), 49 CFR 1.46(b))

Issued in Washington, D.C. on April 24, 1974.

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[FR Doc. 74-9856 Filed 4-29-74; 8:45 am]

<sup>1</sup>The use of existing tanks authorized but new construction not authorized.