



DEPARTMENT OF TRANSPORTATION
MATERIALS TRANSPORTATION BUREAU
WASHINGTON, D.C. 20590

42206

Title 49—Transportation

CHAPTER I—MATERIALS TRANSPORTATION
BUREAU, DEPARTMENT OF
TRANSPORTATION

[Docket No. HM-139; Amdt. Nos. 173-107,
178-43]

PART 173—SHIPPERS—GENERAL RE-
QUIREMENTS FOR SHIPMENTS AND
PACKAGINGS

PART 178—SHIPPING CONTAINER
SPECIFICATIONS

Conversion of Individual Exemptions to
Regulations of General Applicability

AGENCY: Materials Transportation
Bureau, D.O.T.

ACTION: Final rule.

SUMMARY: This action is being taken to incorporate into the Department's Hazardous Materials Regulations a number of changes based on the data and analysis supplied in selected exemption applications, or from existing special permits and exemptions. The need for this action has been created by the public demand to make available new packaging and shipping alternatives that have proven themselves safe under the Department's special permit and exemption programs. The intended effect of these amendments is to provide wider access to the benefits of transportation innovations recognized and shown to be effective and safe.

EFFECTIVE DATE: August 22, 1977.

FOR FURTHER INFORMATION CONTACT:

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SUPPLEMENTARY INFORMATION: On April 7, 1977, the Materials Transportation Bureau (MTB) published a Notice of Proposed Rule Making, Docket HM-139; Notice 77-3 (42 FR 18409) which proposed these amendments. The background and the basis for incorporating these exemptions into the regulations were discussed in that notice. Interested persons were invited to give their views prior to the closing date of May 5, 1977. The primary drafters of this document are Darrell L. Raines and John C. Allen of the Office of Hazardous Materials Operations, Exemptions Branch, and George W. Tenley of the Assistant General Counsel for Materials Transportation Law.

Several changes were made in response to public comments received by the Bureau. Notice 77-3 proposed to add a paragraph (b)(11) to § 173.119 to authorize DOT Specification 12P fiberboard boxes with inside 2U polyethylene containers for flammable liquids n.o.s., with flash points above 20° F. Several commenters pointed out that the 12P/2U

composite packaging is already authorized under § 173.119(m)(8) for flammable liquids, regardless of flash point, which have a secondary hazard. It is argued that this packaging should also be authorized for flammable liquid n.o.s. commodities which have no secondary hazard classification but have flash points below 20° F. The Bureau agrees and consequently the 12P/2U packaging is added as a new paragraph § 173.119 (a)(27) instead of § 173.119(b)(11).

Several objections were received concerning the addition of the DOT-56 portable tank as an authorized container for magnesium powder in § 173.220(b). One commenter suggests the inclusion of other safety features that are now contained in the exemption. Upon further evaluation, the Bureau has decided to withdraw the proposed amendment to § 173.220(b) until further experience is gained with the portable tanks under exemption.

A new sentence is added at the end of the proposed change to § 173.276(a)(9) which authorizes hydrazine in DOT Specification 12B fiberboard boxes with an inside Specification 2E polyethylene container. The new sentence restricts this packaging to hydrazine solution only. This change is based on a comment received from the holder of DOT-SP 6561, the permit upon which the rule change is based.

The Bureau does not agree with the views of a commenter on the rule change to § 178.33a-2(b) which increases the maximum capacity of the DOT Specification 2Q container from 50 cubic inches to 55 cubic inches. The commenter suggested that the maximum capacity authorized for both the 2P and 2Q containers be increased to 62 cubic inches or approximately one liter to forestall future requests for capacity increases. It was also suggested that the criteria for qualifying containers for limited quantities for compressed gases in § 173.306 (a)(3)(i) and (b)(1) and for ORM-D commodities in § 173.1200(a)(8)(i)(A) be increased to 62 cubic inches. These suggestions go far beyond the proposal in Notice 77-3 and the Bureau has no experience through its exemption and special permit program to warrant making such changes under Docket HM-139 at this time.

The only other change in the proposals contained in Notice 77-3 concerns the redesignation of the rule change to § 173.276 to incorporate the DOT-34 container as an authorized container for hydrazine solution based upon DOT-SP 6561. Notice 77-3 identified the new paragraph to § 173.276 as (a)(9). However, the DOT-34 will be added as paragraph (a)(10) since another rule change to authorize the 12B/2E composite packaging has been added as § 173.276(a)(9).

Analysis of these amendments and commenters thereon indicate that the costs

of regulatory enforcement will not be significantly affected, nor will additional costs be imposed on the private sector, consumers, or Federal, State, or local governments, since these amendments will authorize the general use of shipping alternatives previously available to only a few users under exemptions. The safety record or analysis of shipments under the exemptions, identified in Notice 77-3, demonstrate that significant environmental impacts will not result from any of these amendments.

Since these amendments are relaxations of existing rules, and place no additional burden on any person, they are being made effective in less than 30 days after publication in the FEDERAL REGISTER.

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

1. In § 173.66 paragraphs (c), (d) and (d)(1) are revised to read as follows:

§ 173.66 Blasting caps, blasting caps with safety fuse, blasting caps with metal clad mild detonating fuse, and electric blasting caps.

(c) Blasting caps containing not more than 50 grains of explosive composition each must be placed in strong inside containers, in which they fit snugly. When caps are loaded vertically in inside metal containers, they must be covered by suitable elastic material placed over the caps. Not more than 100 such blasting caps may be packed in a single container. All inside containers, except polyethylene plastic bags not subject to static generation, must then be packed snugly in cartons or wrapping made of paper or pasteboard.

(d) Not more than 5000 blasting caps, containing not more than 50 grains of explosive composition each, packed in inside containers as prescribed in paragraph (c) of this section, must be packed in outside containers complying with the following specifications:

(1) Specification 14, 15A or 16A (§178.165, 178.168, 178.185 of this subchapter) wooden boxes (see § 173.67(a)(1), Note 1) or Specification 12H, 23F, or 23H (§178.209, 178.214, 178.219 of this subchapter) fiberboard boxes. Inside containers must be cartons or wrappings with further inside containers as prescribed in paragraph (c) of this section. Polyethylene plastic bags may be used as the only inside containers provided the bags are not subject to static generation and fit snugly in the outside box. Inside containers, except the polyethylene plastic bags, must be separated from the outside box by at least 1-inch of tightly packed sawdust, excelsior, or equivalent cushioning material. Gross weight of the completed package shall not exceed 150 pounds.

2. In § 173.107 paragraph (d)(1) is added to read as follows:

§ 173.107 Primers, percussion caps, grenades, empty, primed, and cartridge cases, empty, primed.

(d) * * *

(1) Specification 12B (§ 178.205 of this subchapter). Fiberboard box. Caps must be packed in inside metal cans containing not more than 100 caps each. Can must then be packed in a chipboard box with not more than 10 cans per box. Not more than 5 chipboard boxes shall be packed in the 12B fiberboard box. The completed package must be such that the explosion of a part of the caps will not cause the explosion of all the caps.

3. In § 173.119 paragraph (a) (27) is added to read as follows:

§ 173.119 Flammable liquids not specifically provided for.

(a) * * *

(27) Specification 12P (§ 178.211 of this subchapter). Fiberboard boxes with inside Specification 2U (§ 178.24 of this subchapter) polyethylene containers not over 5-gallon capacity each. Authorized only for material which will not react dangerously with or cause decomposition of polyethylene. Not authorized for transportation by air.

4. In § 173.208 paragraph (b) (4) is added to read as follows:

§ 173.208 Titanium metal powder, wet or dry.

(b) * * *

(4) Specification 17C (§ 178.115 of this subchapter). Metal drums (single trip) not over 30-gallon capacity.

5. In § 173.239 paragraph (a) (2) is added to read as follows:

§ 173.239 Barium azide—50 percent or more water wet.

(a) * * *

(2) Specification 21C (§ 178.224 of this subchapter). Fiber drum with inside glass bottle not over 1-pound capacity each. Bottles must have rubber stoppers wire-tied for securement. If shipment is to take place at a time freezing weather is to be anticipated, a suitable antifreeze solution must be used to prevent freezing.

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

§ 173.245b Corrosive solids not specifically provided for.

(a) * * *

(6) Plastic drum or pail not exceeding 80 pounds net weight and not over 7-gallon capacity.

7. In § 173.247 paragraph (a) (2) is revised to read as follows:

§ 173.247 Acetyl bromide, acetyl chloride, acetyl iodide, antimony pentachloride, benzoyl chloride, boron trifluoride-acetic acid complex, chromyl chloride, dichloroacetyl chloride, diphenylmethyl bromide solution, pyro sulfuric chloride, silicon chloride, sulfur chloride (mono and di), sulfuric chloride, thionyl chloride, tin tetrachloride (anhydrous), titanium tetrachloride, and trimethyl acetyl chloride.

(a) * * *

(2) Specification 6D (§ 178.102 of this subchapter) Cylindrical steel overpack with inside Specification 2S or 2SL (§§ 178.35, 178.35a of this subchapter) polyethylene packaging. Polyethylene used must be Type III as set forth in Appendix B—Specifications for Plastics to Part 178 of this Title. Authorized for acetyl chloride, dichloroacetyl chloride, sulfuric chloride and trimethyl acetyl chloride only.

8. In § 173.264 paragraph (b) (1) is amended by changing the first sentence to read as follows:

§ 173.264 Hydrofluoric acid; white acid.

(b) * * *

(1) Specification 3¹, 3A, 3AA, 3B, 3C, 3E, 4, 4A, 25¹, or 38¹ (§§ 178.36, 178.37, 178.38, 178.40, 178.42, 178.48, 178.49 of this subchapter); also specification 4B, 4BA, 4BW or 4C (§§ 178.50, 178.51, 178.61, 178.52 of this subchapter) if not brazed.

9. In § 173.272 paragraphs (d) and (i) (6) are revised and paragraph (i) (28) is added to read as follows:

§ 173.272 Sulfuric acid.

(d) Sulfuric acid concentration of greater than 51 percent to not over 65.25 percent: Authorized packaging is described in paragraphs (1) through (16), (27) and (28) of paragraph (i) of this section.

(i) * * *

(6) Specification 6D or 37M (nonreusable container) (§§ 178.102, 178.134 of this subchapter). Cylindrical steel overpacks with an inside specification 2S, 2SL, or 2T (§§ 178.35, 178.35a, 178.21 of this subchapter) polyethylene container. Overpack of over 30-gallon capacity must be constructed of at least 16-gauge steel throughout when used for sulfuric acid of 93 percent or greater concentration.

(28) Specification MC 310, MC 3 MC 312 (§ 178.340, 178.343 of this chapter). Tank motor vehicles having steel cargo tanks equipped with a phenolic lining impervious to the lading. Not authorized for transportation by water.

10. In § 173.275 paragraph (a) (5) is added to read as follows:

§ 173.275 Difluorophosphoric acid, anhydrous, monofluorophosphoric acid, anhydrous, hexafluorophosphoric acid, and mixtures thereof.

(a) * * *

(5) Specification 6D (§ 178.102 of this subchapter). Cylindrical steel overpack with inside specification 2S or 2SL (§§ 178.35, 178.35a of this subchapter) polyethylene packaging. Net weight may not exceed 550 pounds.

11. In § 173.276 paragraphs (a) (9) and (a) (10) are added to read as follows:

§ 173.276 Anhydrous hydrazine and hydrazine solution.

(a) * * *

(9) Specification 12B (§ 178.205 of this subchapter). Fiberboard box with one inside Specification 2E (§ 178.24a of this subchapter) polyethylene bottle not over 4½-quart capacity. Polyethylene bottle must be of Type III high density polyethylene having a minimum wall thickness of 30 mils and bottle must be securely closed with a screw cap. Authorized for hydrazine solution only.

(10) Specification 34 (§ 178.19 of this subchapter) polyethylene container without overpack, not over 30-gallon capacity. Authorized for hydrazine solution only.

12. In § 173.304 the Table in paragraph (a) (2) is amended by revising the entry for sulfuric fluoride to read as follows:

§ 173.304 Charging of cylinders with liquefied compressed gas.

(a) * * *

(2) * * *

Kind of gas	Maximum permitted filling density (see note 1)	Containers marked as shown in this column or of the same type with higher service pressure must be used except as provided in sec. 173.301 (j) (see notes following table)
(Revise) Sulfuric fluoride..	106	DOT-3A480; DOT-3AA480; DOT-3E1800; DOT-4B480; DOT-4BA480; DOT-4BW480.

13. In § 173.377 paragraph (b) (8) is revised to read as follows:

§ 173.377 Hexaethyl tetraphosphate mixtures; methyl parathion mixtures; organic phosphorus compound mixtures; organic phosphate compound mixtures; parathion mixtures; tetraethyl dithio pyrophosphate mixtures; and tetraethyl pyrophosphate mixtures, dry.

(b) * * *

(6) Specification 12B (§ 178.205 of this subchapter). Fiberboard box with inside Specification 2D (§ 178.23 of this subchapter) paper bags not over 4-pound capacity each and having an additional foil liner. The mixture may be further packed in water soluble 1½ mil polyvinyl alcohol film pouches of not more than 8-ounce capacity each with not more than 10 pouches per specification bag. Completed package may not exceed 65 pounds gross weight and must meet the test requirements of paragraphs (d) and (e) of this section. Authorized only for mixtures in which the liquid is absorbed in concentrations no greater than 67 percent.

14. In § 178.33a, § 178.33a-2(b) is revised to read as follows:

§ 178.33a Specification 2Q, inside non-refillable metal containers.

§ 178.33a-2 Type and size.

(b) The maximum capacity of containers in this class shall not exceed 55 cubic inches (30.5 fluid ounces). The

maximum inside diameter shall not exceed 3 inches.

EFFECTIVE DATE: This amendment is effective August 22, 1977.

(49 U.S.C. 1803, 1804, 1808; 49 CFR 1.53(e).)

NOTE.—The Materials Transportation Bureau has determined that this document does not contain a major proposal requiring preparation of an Economic Impact Statement under Executive Order 11821 and OMB Circular A-107.

Issued in Washington, D.C. on August 17, 1977.

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Materials Transportation Bureau.

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