DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS DIRECTORATE
WASHINGTON, D.C. 20590

Title 49—Transportation

CHAPTER I—MATERIALS TRANSPORTATION BUREAU, DEPARTMENT OF TRANSPORTATION

[Docket No. HM-139; Amdt. Nos. 172-40, 173-114, 174-29, 176-4, 179-22]

CONVERSION OF INDIVIDUAL EXEMPTIONS TO REGULATIONS OF GENERAL APPLICABILITY

AGENCY: Materials Transportation Bureau, DOT.

ACTION: Final rule.

SUMMARY: This action is being taken to incorporate into the Department's Hazardous Materials Regulations a number of changes based on 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: March 2, 1978.

FOR FURTHER INFORMATION CONTACT:

Alan I. Roberts, Director, Office of Hazardous Materials Operations, 2100 2d Street SW., Washington, D.C. 20590, 202-426-0656.

SUPPLEMENTARY INFORMATION: On September 1, 1977, the Materials Transportation Bureau (MTB) published a Notice of Proposed Rulemaking, Docket HM-139; Notice 77-8 (42 FR 43993) 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 September 30, 1977. Primary drafters of this document are Darrell L. Raines and John C. Allen of the Office of Hazardous Materials Operations, Exemptions Branch, and Evan C. Braude, of the Office of the Chief Counsel, Research and Special Programs Directorate.

Several commenters objected to the proposed amendment to § 173.251 to authorize boron tribromide in glass containers inside DOT Specification 37A drums aboard passenger-carrying aircraft. The Bureau agrees with this comment and has no intention of authorizing this commodity in any container aboard passenger-carrying aircraft (boron tribromide is presently forbidden by the Hazardous Materials Table in § 172.101 for this mode). Unfortunately a typographical error appeared in Notice 77-8 for the proposed modes of transportation (see the entry for E 7211-No. in that notice). The number 5, representing passenger-carrying aircraft, should have been the number 4, representing cargo-only aircraft. The amendment to § 173.251(b)(3) therefore applies only to rail, highway, cargo vessel, and cargo-only aircraft (subject to the quantity limit of 1-quart per package).

A number of comments were directed to the proposed amendment to § 173.314(c), Note 7 which was based on DOT-E 7810. The proposal was to authorize certain flammable and nonflammable refrigerant gases in DOT Specification 106A and 110A multiunit tank car tanks to be shipped by cargo vessel. Note 7 to the Table in § 173.314(c) now has the effect of limiting these "ton" tanks to the rail and highway modes only. The proposal was to amend the note and simply add the words "cargo vessel." However, this proposal would have had the effect of authorizing all of the other compressed gases which are referenced by Note 7 in the Table in § 173.314(c) to be shipped by cargo vessel in 106A and 110A tanks.

This effect would go beyond the intention of the Bureau which is to authorize only the refrigerant gases covered by DOT-E 7810 for shipment in this manner. Accordingly, a number of other changes have been made to effect the desired authorization. The refrigerant gases in the Table are now referenced by a new Note 24 which authorizes these gases by all three modes. Note 24 also refers the reader to other regulations peculiar to the 106A and 110A ton tanks including a reference to the new stowage requirements aboard cargo vessel in § 176.230 for flammable compressed gases in 106A and 110A tank car tanks.

The Table in § 179.201-1 has been amended to uniformly require the safety relief vent-burst pressure to be at the tank test pressure instead of the previously authorized 75 percent setting. Also, for all domeless tank cars built to DOT Specification 111A and for certain DOT Specification 103 tank cars, the minimum outage has been increased to 2 percent from the previously required 1 percent. These changes are based on experience under the special permit and exemption program and on a petition for rulemaking from the Bureau of Explosives and endorsed by the Manufacturing Chemists Association and Stauffer Chemical Co. An editorial change has been made to correct a typographical error which referenced a 104AW tank car instead of a 103AW in Notice 77-8.

Another change initiated by the Bureau concerns the rule change to § 173.119(m)(11) to authorize MC 305 and MC 306 cargo tanks for certain flammable liquids having a secondary hazard. A sentence has been added to restrict the MC 305 and MC 306 cargo tanks from being shipped by cargo vessel when containing these commodities.

One final change incorporated in these amendments is to add a revision to § 173.65(d) to correct an error made in Docket HM-139, Amendments 172-38, 173-110, 176-3 (42 FR 57964) published on November 7, 1977. This paragraph allows certain commodities to be shipped as nonregulated items if certain conditions are met. The words "without any other requirements" were inadvertently omitted in the introductory portion of that paragraph.

In consideration of the foregoing, 49 CFR Parts 172, 173, 174, 176 and 179 are amended as follows:

PART 172—HAZARDOUS MATERIALS TABLE AND HAZARDOUS MATERIALS COMMUNICATIONS REGULATIONS

1. In § 172.101 the Hazardous Materials Table is amended by adding, in alphabetical sequence, an entry for inflatable liferafts to read as follows:

§ 172.101 Hazardous Materials Table

(1)	(2)	(3)	(4)	(5) Packaging		(6) Maximum net quantity in one package		(7) Vessel stowage		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or rail car	(b) Cargo only aircraft	(a) Cargo vessel	(b) Passenger vessel	(c) Other requirements
*/#/A	Hazardous materials descriptions and proper shipping names	Hazard class	Label(s) required (if not excepted)							
	*		*	*	*	*	*	*	*	*
	(Add) Life-rafts, inflatable	ORM-C	None	None	173.906	1 per inaccessible cargo compartment	No limit	1,2	1,2	*

PART 173—SHIPPERS-GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

2. In § 173.34 paragraph (e)(15)(ii) is revised to read as follows:

§ 173.34 Qualification, maintenance, and use of cylinders.

* * * * *

(e) * * *

(15) * * *

(ii) The cylinder is used exclusively for: Air, argon, cyclopropane, ethylene, helium, hydrogen, krypton, neon, nitrogen, nitrous oxide, oxygen, sulfur hexafluoride, xenon, and permitted mixtures thereof (see § 173.301(a)) and permitted mixtures of these gases with up to 30 percent by volume of carbon dioxide. These commodities must have a dewpoint at or below minus 52° F. at 1 atmosphere.

* * * * *

3. In § 173.65 paragraph (d) is revised to read as follows:

§ 173.65 High explosives with no liquid explosive ingredient nor any chlorate.

* * * * *

(d) The following materials may be shipped dry as drugs, n.o.s. or medicines, n.o.s. without any other requirements by rail freight or highway if the amount in one outside package does not exceed 4 ounces, and the materials are packed in securely closed bottles or jars that are cushioned to prevent breakage:

(1) Ammonium picrate.
(2) Dipicrylamine.
(3) Dipicryl sulfide.
(4) Dinitrophenylhydrazine.
(5) Nitroguanidine.
(6) Picramide.
(7) Picric acid.
(8) Picryl chloride.
(9) Trinitroanisole.
(10) Trinitrobenzene.
(11) Trinitrobenzoic acid.
(12) Trinitro-m-cresol.
(13) Trinitronaphthalene.
(14) Trinitroresorcinol.
(15) Trinitrotoluene.

(16) Urea nitrate.
(17) Triaminotrinitrobenzene.
(18) Trichlortrinitrobenzene.
(19) Hexanitrostilbene.

* * * * *

4. In § 173.119 paragraph (m)(11) is revised to read as follows:

§ 173.119 Flammable liquids not specifically provided for.

* * * * *

(m) * * *

(11) Specification MC 305, MC 306, or MC 307 (§§ 178.340, 178.341, 178.342 of this subchapter). Tank motor vehicles meeting § 178.343-2(c) of this chapter. Not authorized for flammable liquids which are also organic peroxides. MC 305 and MC 306 not authorized for transportation by water.

* * * * *

5. In § 173.182 paragraph (b)(6)(i) is revised to read as follows:

§ 173.182 Nitrates.

* * * * *

(b) * * *

(6) * * *

(i) Specification 44P (§ 178.241 of this subchapter). All plastic bags. Maximum authorized net weight is 81 pounds. Authorized only for ammonium nitrate mixed fertilizer, ammonium nitrate fertilizer (containing no more than 0.2 percent carbon), and potassium nitrate.

* * * * *

6. In § 173.241 paragraph (a)(3) is revised to read as follows:

§ 173.241 Outage.

(a) * * *

(3) *Outage requirements for tank cars.* In tank cars, outage must be calculated to percentage of the total capacity of the tank, i.e., shell and dome capacity combined. If the dome of tank car does not provide sufficient outage, then vacant space must be left in the shell to make up the required outage. The outage for tank cars must not be less than 2 percent, except that outage for Specification 103A, 103B, 103C, 103E, 103A-AL, 103C-AL, 103AW, 103BW, 103CW, 103EW, 103ANW, 103A-ALW, tank cars must not be less than 1 percent.

* * * * *

7. In § 173.251 paragraph (b)(3) is added to read as follows:

§ 173.251 Boron trichloride and boron tribromide.

* * * * *

(b) * * *

(3) Specification 37A (§ 178.131 of this subchapter). Steel drums not over 30-gallon capacity each with inside glass receptacles not over 1-quart capacity each. Inside containers and cushioning must comply with paragraph (b)(1) of this section. Not more than four 8-ounce glass receptacles or two 1-quart glass receptacles may be packed within one 8-gallon 37A drum. Not more than twelve 8-ounce glass receptacles or six 1-quart glass receptacles may be packed within one 30-gallon 37A drum. Completed package must meet test requirements of § 178.131-11 of this subchapter.

8. In §173.314 the table in paragraph (c) is amended by revising the entries for Dichlorodifluoromethane, Dichlorodifluoromethane and difluoroethane mixture, Dichlorodifluoromethane-dichlorotetrafluoroethane mixture, Dichlorodifluoromethane-monochlorodifluoromethane mixture, Dichlorodifluoromethane-monofluorotrichloromethane mixture, Dichlorodifluoromethane-trichloromonofluoromethane-monochlorodifluoromethane, mixture, mixture, Difluoroethane, Difluoromonochloroethane, Monochlorodifluoromethane, Monochlorotetrafluoroethane, Trifluorochloroethylene; and by adding Note 24 at the end of the table to read as follows:

§173.314 Requirements for compressed gases in tank cars.

* * * * *

(c) * * *

Kind of gas	Maximum permitted filling density, note 1	Required tank car, see sec. 173.31(a) (2) and (3)
* * *	* * *	* * *
Dichlorodifluoromethane; note 13	119	DOT-106A500X, 110A500-W, note 24.
	125	DOT-105A300W.
	123	DOT-112A340W, 114A340W.
Dichlorodifluoromethane and difluoroethane mixture (constant boiling mixture); note 13.	Note 22	DOT-106A500X, 110A500W, note 24. DOT-105A300W.
Dichlorodifluoromethane-dichlorotetrafluoroethane mixture; note 13.	119	DOT-106A500X, 110A500-W, note 24.
	125	DOT-105A300-W.
Dichlorodifluoromethane-monochlorodifluoro-methane mixture; note 13.	Note 21	DOT-112A340W, 114A340W.
	119	DOT-106A500X, 110A500-W, note 24.
	125	DOT-105A300-W.
	123	DOT-112A340W, 114A340W.
Dichlorodifluoromethane-monofluorotrichloromethane mixture; note 13.	Note 22	DOT-106A500X, 110A500-W, note 24. DOT-105A300-W.
Dichlorodifluoromethane-trichloromonofluoromethane-monochlorodifluoromethane mixture; note 13.	Note 21	DOT-112A340W, 114A340W.
	119	DOT-106A500X, 110A500-W, note 24.
	125	DOT-105A300-W.
Dichlorodifluoromethane-trichlorotrifluorethane mixture; note 13.	123, Note 21	DOT-112A340W, 114A340W.
	119	DOT-106A500X, 110A500-W, note 24.
	125	DOT-105A300-W.
Difluoroethane	123	DOT-112A340W, 114A340W.
	79	DOT-106A500X, 110A500-W, note 24.
	79	DOT-112A400W.
	84	DOT-105A300-W.
Difluoromonochloroethane; note 13	100	DOT-106A500X, 110A500W, note 24. DOT-105A100W, note. 4.
* * *	* * *	* * *
Monochlorodifluoromethane; note 13	105	DOT-106A500X, 110A500W, note 24.
	110	DOT-105A300W.
Monochlorotetrafluoroethane; note 13	108	DOT-112A400W.
	125	DOT-106A500X, 110A500W, note 24.
	126	DOT-112A400W.
* * *	* * *	* * *
Trifluorochloroethylene	115	DOT-106A500X, 110A500W, note 24.
	120	DOT-105A300W, note 4.
* * *	* * *	* * *

* * * * *

NOTE 24—Specification 106A and 110A tanks for these commodities are authorized for transportation by rail freight, highway, and cargo vessel. (See §§ 174.204, 176.200, 176.230 and 177.834(m) of this subchapter for additional requirements.)

* * * * *

9. In § 173.328, paragraph (a)(3) is added to read as follows:

§ 173.328 Poison A materials not specifically provided for.

(a) * * *

(3) Cyanogen chloride containing less than 0.9 percent water may also be packaged as prescribed by § 173.332(a)(2) of this subchapter.

* * * * *

10. In § 173.353 paragraph (a)(7) is added to read as follows:

§ 173.353 Methyl bromide and methyl bromide mixtures.

(a) * * *

(7) Specification 12B (§ 178.205 of this subchapter). Fiberboard box with inside tinplated metal cans containing not more than 6 ounces net weight of product per can. Cans must be capable of withstanding a pressure of 75 pounds per square inch at 130° F without leakage or permanent distortion. Not more than 12 cans may be packed snugly in the outside fiberboard box and gross weight of completed package shall not exceed 30 pounds. Authorized only for methyl bromide and ethylene dibromide mixtures.

* * * * *

11. In § 173.373 paragraph (a)(6) is added to read as follows:

§ 173.373 Ortho-nitroaniline and para-nitroaniline.

(a) * * *

(6) Specification MC 304, MC 307, MC 310, MC 311, or MC 312 (§§ 178.340, 178.342, 178.343 of this subchapter). *Tank motor vehicles.* If the cargo tank is constructed with bottom outlets, they must meet §§ 178.342-5(a) and 178.343-5 of this subchapter. Cargo tank must be insulated and have a steel inner tank. Authorized only for ortho-nitroaniline loaded in a liquefied state at a temperature not over 180° F. Not authorized for transportation by water.

12. § 173.906 is added to read as follows:

§ 173.906 Inflatable life-rafts.

An inflatable life-raft, serviced and ready for use as a life-saving appliance aboard a vessel or aircraft, containing small quantities of hazardous materials which are required as part of the life-saving appliance, e.g., a non-flammable compressed gas with no subsidiary hazards packaged in a cylinder complying with DOT regulations, Class C explosives in the form of pyrotechnic signal devices, and flammable liquids in the form of a repair kit capable of repairing punctures in the buoyancy compartments etc., must be packed in strong outside packagings.

PART 174—CARRIAGE BY RAIL

13. In § 174.25, paragraphs (a)(2) (i) and (ii) are revised to read as follows:

§ 174.25 Additional information on waybills, switching orders and other billings

(a) * * *

(2) * * *

(i) In letters not less than ⅜ of an inch, or

(ii) In bold, uppercase letters not less than 1/10 of an inch high inside a rectangle made with any symbol such as asterisk (*), dollar sign ($), capital (X), or the symbol for number (#).

* * * * *

PART 176—CARRIAGE BY VESSEL

14. § 176.230 is added to read as follows:

§ 176.230 Stowage of flammable compressed gases.

Flammable compressed gases transported in Specification 106A and 110A multi-unit tank car tanks must be stowed on deck only, and must be shaded from radiant heat.

15. In § 176.415, paragraph (c)(5) is added to read as follows:

§ 176.415 Permit requirements for nitro carbo nitrate and certain ammonium nitrates.

* * * * *

(c) * * *

(5) If the material is ammonium nitrate (organic coated), ammonium nitrate-phosphate, an ammonium nitrate mixture containing more than 60 percent ammonium nitrate, or nitro carbo nitrate, in non-rigid combustible packaging and loaded in freight containers or roll-on, roll-off highway vehicles, it may be loaded or unloaded at a non-isolated facility provided that facility meets the approval of the Coast Guard Captain of the Port.

PART 179—SPECIFICATIONS FOR TANK CARS

16. In § 179.200-18 paragraph (b)(1) is revised to read as follows:

§ 179.200-18 Safety relief devices.

* * * * *

(b) * * *

(1) When permitted in § 179.201-1, each tank or compartment used for the transportation of corrosive liquids, flammable solids, oxidizing materials, or poisonous liquids or solids, Class B, need not be equipped with safety relief valves, but if not so equipped shall have one safety vent at least inches inside diameter, of an approved design which will prevent interchange with fixtures prescribed in § 179.200-16(a), and closed with a frangible disc of lead or other approved material of a thickness that will rupture at not more than 100 percent of tank test pressure. Means for holding disc in place shall be such as to prevent distortion or damage to disc when applied. Safety vent closure shall be chained or otherwise fastened to prevent misplacement. All tanks equipped with vents shall be stenciled "Not for Flammable Liquids."

17. In § 179.201-1 the table in paragraph (a) is amended by changing the individual entries for maximum expansion capacity and vent bursting pressure to read as follows:

§ 179.201-1 Individual specification requirements.

(a) * * *

DOT specifications	103A-ALW	103AW	103ALW	103ANW	103BW	103CW	103DW	103EW
*	*	*	*			*		
(Revised) Minimum expansion capacity (See 179.200-14)	1 percent in dome	1 percent in dome	2 percent in dome	1 percent in dome	1 percent in dome	1 percent in dome	2 percent in dome	1 percent in dome
*	*	*	*			*		
(Revised) Vent bursting pressure p.s.i.	60	60	60	60	60	prohibited	60	60
*	*	*	*			*		

§ 179.201-1 Individual specification requirements.--Continued

DOT specifications	103W	104W	111A60ALW1	111A60ALW2	111A60W1 [1]	111A60W2	111A60W5	111A60W7
*	*	*	*			*		
(Revised) Minimum expansion capacity (See 179.200-14)	2 percent in dome	2 percent in dome	2 percent in tank	2 percent in tank	2 percent in tank	2 percent in tank	2 percent in tank	2 percent in tank
*	*	*	*			*		
(Revised) Vent bursting pressure p.s.i.	60	60	60	60	60	60	60	60
*	*	*	*			*		

DOT specifications	111A100ALW1	111A100ALW2	111A100W1 [1]	111A100W2 [1]	111A100W3	111A100W4	111A100W5	111A100W6	111A60F1, [1] 111A100F1, [1] 111A100F2, [1]
*	*		*		*				*
(Revised) Minimum expansion capacity (See 179.200-14)	2 percent in tank	2 percent in tank	2 percent in tank	2 percent in tank	2 percent in tank	Footnote 2	2 percent in tank	2 percent in tank	
*	*		*		*				*
(Revised) Vent bursting pressure p.s.i.	100	100	100	100	100	prohibited	100	100	
*	*		*		*				*

(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 February 28, 1978.

L. D. SANTMAN,
Acting Director, Materials Transportation Bureau.

[FR Doc. 78-5410 Filed 3-1-78; 8:45 am]

FEDERAL REGISTER, VOL. 43, NO. 42—THURSDAY, MARCH 2, 1978

[Docket No. HM-139; Amdt. Nos. 172-40, 173-114, 174-29, 176-4, 179-22]

PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

Conversion of Individual Exemptions to Regulations of General Applicability

Correction

In FR Doc. 78-5410, appearing at page 8519 in the issue of Thursday, March 2, 1978, the fourteenth line of the paragraph designated "8." in column three on page 8521 should read, "Dichlorodifluoromethane-trichlorotrifluoroethane mixture, Difluoroethane."

FEDERAL REGISTER, VOL. 43, NO. 44—MONDAY, MARCH 6, 1978