



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

39788

Title 49—Transportation

CHAPTER I—MATERIALS TRANSPORTATION BUREAU, DEPARTMENT OF TRANSPORTATION

[Docket No. HM-139; Amdt. Nos. 172-45, 173-120, 175-5, 178-5]

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: September 7, 1978.

FOR FURTHER INFORMATION CONTACT:

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SUPPLEMENTARY INFORMATION: On June 5, 1978, the Materials Transportation Bureau (MTB) published a notice of proposed rulemaking, docket HM-139; notice No. 7 (43 FR 24335)

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 July 5, 1978. Primary drafters of this document are Darrell L. Raines and John C. Allen, of the Office of Hazardous Materials Regulation, Exemptions and Regulations Termination Branch, and Evan C. Braude, of the Office of the Chief Counsel, Research and Special Programs Directorate.

There were very few comments received from the public concerning this notice. The majority of the comments received concerned the proposal to add a definition in 49 CFR 171.8 for an "empty tank car." All commenters but two were opposed to the proposed amendment and requested either an extension of the comment period or withdrawal of this particular proposal from HM-139. Several commenters suggested that it be treated as an entirely separate issue in another rulemaking docket. In light of these comments, the Materials Transportation Bureau is withdrawing the proposed amendment to § 171.8 from consideration under HM-139.

Notice No. 7 contained a proposed amendment to § 173.163(a) to authorize DOT specification 58 portable tanks for sodium chlorate and potassium chlorate. This proposal is withdrawn from docket HM-139 since the DOT 58 portable tank was added by docket HM-121 published in the FEDERAL REGISTER on July 20, 1978 (43 FR 31138).

Several comments from the petroleum equipment suppliers industry were received concerning the proposal to authorize shipment of "charged oil well jet perforating guns" aboard private cargo vessels as class C explosives under limited conditions (DOT-E 7932). These comments were directed to the limitation proposed by

§ 173.110(c)(4) that the total weight of explosive content of the shaped charges assembled in the guns shall not exceed 20 pounds per vessel. It is argued principally that such a limitation results in a waste of time, money and energy since it causes a greater number of trips for a vessel between the offshore drilling site and the onshore shipping location. The Bureau agrees with this argument to the extent that more than 20 pounds per vessel will be allowed, but only under the segregation requirements of § 176.83(b). The 20-pound-per-pallet restriction will be maintained.

Analysis of these amendments and comments 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 the exemptions. The safety record or analysis of shipments under the exemptions identified in notice No. 7 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, Parts 172, 173, 175, and 176 of Title 49 CFR are amended as follows:

PART 172—HAZARDOUS MATERIALS TABLE AND HAZARDOUS MATERIALS COMMUNICATIONS REGULATIONS

1. In the hazardous materials table in § 172.101, the following entries are revised to read:

(1) W/ A	(2) Hazardous materials descriptions and proper shipping names	(3) Hazard class	(4) Label(s) required (if not accepted)	(5) Packaging		(6) Maximum net quantity in one package		(7) Water shipments		
				(a) Exceptions	(b) Specific requirements	(a) Passenger carrying aircraft or railcar	(b) Cargo only aircraft	(a) Cargo vessel	(b) Passenger vessel	(c) Other requirements
	(change)									
*	Charged oil well jet perforating gun (total explosive content in guns not exceeding 20 lb per motor vehicle or special off-shore down hole tool pallet).	Class C explosive	Explosive C	None	173.53 173.110	Forbidden	Forbidden	1,2	5	
*	Cigarette lighter (or other similar ignition device).	Flammable gas	Flammable gas	173.21 175.10	173.308	21 ounces	25 pounds	1	1	
*	Cigarette lighter (or other similar ignition device).	Flammable liquid	Flammable liquid	173.21 175.10	173.118	Forbidden	Forbidden	1	1	
	Corrosive liquid, n.o.s.	Corrosive material	Corrosive	173.244	173.245 173.245a	1 quart	1 quart	1	4	For material that meets only the corrosion to skin criteria of 49 CFR 173.240(a)(1), "under deck" stowage is also authorized if the description includes the additional entry specified by § 173.203(d)(3).
	Corrosive solid, n.o.s.	Corrosive material	Corrosive	173.244	173.245b	25 pounds	100 pounds	1	4	For material that meets only the corrosion to skin criteria of 49 CFR 173.240(a)(1), "under deck" stowage is also authorized if the description includes the additional entry specified by § 173.203(d)(3).
	Cyclotetramethylenetetra-nitramine, wet with not less than 10 percent water. See high explosive.									
	Motor vehicle, etc., including automobile, motorcycle, truck, tractor, and other self-propelled vehicle or equipment powered by internal combustion engine, when offered new or used for transportation and which contain fuel in the engine or fuel tank or the electric storage battery is connected to either terminal of the electrical system.	ORM-C	None	173.120 173.250 173.257 173.30C 175.305 176.905				1,2	1,2	
	(Add) Water pump system tank charged with compressed air or nitrogen.	Non-flammable gas	None	173.306		Forbidden	Forbidden	1,2	1,2	

2. In § 172.203, paragraph (f) is amended by adding paragraph (3) to read:

§ 172.203 Additional description requirements.

(f) ***

(3) The entry "Skin corrosive only" must be included to also authorize "under deck" stowage for corrosive liquid, n.o.s. and corrosive solid, n.o.s. that meet only the corrosion to skin criteria of § 173.240(a)(1).

PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

3. In § 173.34 paragraph (e)(10) is amended by adding the following entry at the end of the table:

§ 173.34 Qualification, maintenance, and use of cylinders.

(e) ***
(10) ***

Cylinders made used exclusively compliance with— for— DOT-4B240, DOT-4B240— Ethylene imine, inhibited.

4. In § 173.65 the introductory text of paragraph (e) and paragraph (e)(3) are revised to read as follows:

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

(e) Ammonium picrate, cyclo-tetramethylenetetranitramine, cyclotrimethylenetrinitramine, pentaerythrite tetranitrate (desensitized), picric acid, trinitrobenzene, trinitrobenzoic acid, trinitroresorcinol, trinitrotoluene, or urea nitrate, when wet with not less than 10 pounds of water to each 90 pounds of dry material must be shipped in packagings as follows:

(3) Specification 5B (§ 178.82 of this subchapter). Metal barrels or drums or Spec. 21C (§ 178.224 of this subchapter) fiber drums. Authorized only for cyclotetramethylenetetranitramine, or cyclotrimethylenetrinitramine, each wet with not less than 10 pounds of water to each 90 pounds of dry material in inside containers which must be bags made of at least 10-ounce cotton duck, plastic bags not less than 4 mils thick, rubber, or rubberized cloth and securely closed. The dry weight of

cyclotrimethylenetrinitramine or cyclotetramethylenetetranitramine in one metal barrel or drum must not exceed 300 pounds and not more than 225 pounds in fiber drums. These bags containing the cyclotrimethylenetrinitramine or cyclotetramethylenetrinitramine must then be placed in a rubber bag, rubberized cloth bag, or bag made of suitable water-tight material which must be securely closed and then placed in the drum. If shipment of cyclotrimethylenetetranitramine is to take place at a time freezing weather is to be anticipated, it must be wet with a mixture of denatured ethyl alcohol or other suitable antifreeze and water of such proportions that freezing will not occur in transit.

5. In § 173.110 the heading is revised and paragraph (c) is added to read as follows:

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

(c) Charged oil well jet perforating guns may be offered for transportation and transported by private offshore oil well supply vessels only when carried in special motor vehicles as prescribed in § 173.80 or on offshore down hole tool pallets provided that:

(1) No blasting caps, electric blasting caps or other firing devices shall be affixed or installed in the guns;

(2) Each shaped charge shall contain not over 4 ounces of explosives;

(3) Each shaped charge, if not completely enclosed in glass or metal, shall be fully protected by a metal cover after installation in the gun; and

(4) The total weight of the explosive contents of shaped charges assembled in guns being carried does not exceed 20 pounds per vehicle or pallet. Each cargo vessel compartment may contain up to 20 pounds of explosive content if the segregation requirements of § 178.83(b)(3) are met. More than one pallet or vehicle, each containing not more than 20 pounds of explosive content, may be stowed "on deck" provided a minimum horizontal separation distance of 10 feet is provided.

6. In § 173.119 paragraph (m)(10) is revised to read as follows:

§ 173.119 Flammable liquids not specifically provided for.

(m) ***

(10) Specification MC 303 or MC 304: Tank motor vehicle meeting § 178.343-2(c) of this subchapter. If the cargo tank is constructed with bottom out-

lets, they must meet § 178.342-5(a) of this subchapter. Not authorized for flammable liquids which are also organic peroxides, MC 303 not authorized for transportation by water.

7. In § 173.154 paragraph (a)(20) is added to read as follows:

§ 173.154 Flammable solids, organic peroxide solids and oxidizers not specifically provided for.

(a) ***

(20) As prescribed in § 173.163(a)(7). Authorized only for sodium chlorate, dry, and hydrated calcium hypochlorite.

8. In § 173.245 paragraph (a)(5) is added to read as follows:

§ 173.245 Corrosive liquids not specifically provided for.

(a) ***

(5) Specification 5K (§ 178.88 of this subchapter). Nickel barrels or drums. Authorized only for commodities that will not react with nickel and result in container failure.

9. In § 173.245b paragraph (a)(5) is revised to read as follows:

§ 173.245b Corrosive solids not specifically provided for.

(a) ***

(5) Fiber drum not exceeding 550 pounds net weight and not over 65-gallon capacity. When shipped by water, each drum must include a moisture barrier.

10. In § 173.297 paragraph (a)(5) is added to read as follows:

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

(a) ***

(5) Specification 21P (§ 178.225 of this subchapter). Fiber drum overpack with inside specification 2U (§ 178.24 of this subchapter) polyethylene container not over 15-gallon capacity or specification 2SL (§ 178.35a of this subchapter) polyethylene container not over 55-gallon capacity. Authorized only for solutions containing not over 20 percent sulfuric acid.

11. In § 173.306 paragraph (g) is added to read as follows:

§ 173.306 Limited quantities of compressed gases.

(g) Water pump system tank. Water pump system tanks charged with compressed air or limited quantities of nitrogen to not over 40 psig for single-trip shipment to installation sites are

excepted from labeling (transportation by air not authorized) and the specification packaging requirements of this subchapter when shipped under the following conditions. In addition, shipments are not subject to Subpart F of this subchapter, to part 174 of this subchapter except § 174.24 and part 177 except § 177.817.

(1) The tank must be of steel, welded with heads concave to pressure, having a rated water capacity not exceeding 120 gallons and with outside diameter not exceeding 24 inches. Safety relief devices not required.

(2) The tank must be pneumatically tested to 100 psig. Test pressure must be permanently marked on the tank.

(3) The stress at prescribed pressure must not exceed 20,000 psi using formula:

$S = Pd/2t$
where:

S=wall stress in pounds per square inch;
P=prescribed pressure for the tank of at least 3 times charged pressure at 70° F or 100 psig, whichever is greater;
d=inside diameter in inches;
t=minimum wall thickness, in inches.

(4) The burst pressure must be at least 6 times the charge pressure at 70° F.

(5) Each tank must be overpacked in a strong outside container in accordance with § 173.301(k).

12. In § 173.308 paragraph (c) is added to read as follows:

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

(c) For transportation by water in a closed transport vehicle or a closed freight container, the following warning must be affixed to the access doors: "WARNING—MAY CONTAIN EXPLOSIVE MIXTURES WITH AIR—KEEP IGNITION SOURCES AWAY WHEN OPENING." The warning must be on a contrasting background and must be readily legible from a distance of 25 feet.

PART 175—CARRIAGE BY AIRCRAFT

13. In § 175.10 paragraphs (a)(11) and (a)(12) are added to read as follows:

§ 175.10 Exceptions.

(a) * * *

(11) Smoke grenades, flares, and pyrotechnic devices affixed to aircraft carrying no person other than a required flight crewmember during any flight conducted at and as a part of a scheduled air show or exhibition of aeronautical skill. The affixed installation accommodating the smoke grenades, flares, or pyrotechnic devices on the aircraft must be approved by the FAA for its intended use.

(12) Hazardous materials which are loaded and carried on or in cargo-only aircraft and which are to be dispensed or expended during flight for weather control, forest preservation and protection, or avalanche control purposes when the following requirements are met:

(i) Operations may not be conducted over densely populated areas, in a congested airway, or near any airport where air carrier passenger operations are conducted.

(ii) Each operator shall prepare and keep current a manual containing operational guidelines and handling procedures, for the use and guidance of flight, maintenance, and ground personnel concerned in the dispensing or expending of hazardous materials. The manual must be approved by the FAA District Office having jurisdiction over the operator's certificate, if any, or the FAA Regional Office in the region where the operator is located. Each operation must be conducted in accordance with the manual.

(iii) No person other than a required flight crewmember, FAA inspector, or person necessary for handling or dispensing the hazardous material may be carried on the aircraft.

(iv) The operator of the aircraft must have advance permission from the owner of any airport to be used for the dispensing or expending operation.

(v) When dynamite and blast caps are carried for avalanche control flights, the explosives must be handled, and, at all times be, under the control of a blaster who is licensed under a state or local authority identified in writing to the FAA district office having jurisdiction over the operator's certificate, if any, or the FAA regional office in the region where the operator is located.

PART 176—CARRIAGE BY VESSEL

14. In § 176.905 paragraph (k) is revised to read as follows:

§ 176.905 Motor vehicles or mechanical equipment powered by internal combustion engines.

(k) Motor vehicles with fuel in their tanks may be stowed in a closed freight container if the following warning is affixed to the access doors: "WARNING—MAY CONTAIN EXPLOSIVE MIXTURES WITH AIR—KEEP IGNITION SOURCES AWAY WHEN OPENING." The warning must be on a contrasting background and must be readily legible from a distance of 25 feet.

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

Note.—The Materials Transportation Bureau has determined that this document constitutes a non-major regulation under Executive Order 12044 and DOT implementing procedures (43 FR 9582). A regulatory evaluation is available for review in the docket.

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