

Research and Special Programs Administration

49 CFR Part 172, 173 and 175

[Docket No. HM-166Q and HM-166F; Notice No. 10]

Exceptions for Small Quantities of Hazardous Materials

AGENCY: Materials Transportation Bureau (MTB), Research and Special Programs Administration, DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Materials Transportation Bureau (MTB) is proposing to reduce the number of requirements that the Department's Hazardous Materials Regulations (HMR) impose on the shipment and carriage of certain small quantities of hazardous materials, contained in high technology instruments, medical devices, and diagnostic kits. This action is taken in response to a petition. The reduction would be dependent on conformance to proposed packaging performance requirements, and specified conditions. MTB is proposing that small quantities of radioactive materials meeting the definition of one or more specified hazard classes be included under the standardized packaging proposed herein. In addition, MTB is proposing in this docket to renew the limited exemption found in 49 CFR 172.204(c)(4), 175.10(a)(6), and 175.700(c) for air transport of limited quantity radioactive materials.

DATE: Comments must be received on or before January 6, 1983.

ADDRESS: Address comments to: The Dockets Branch, Materials Transportation Bureau, U.S. Department of Transportation, Washington, D.C. 20590. It is requested that the docket number be identified and that five copies be submitted. The Dockets Branch is located in Room 8426 of the Nassif Building, 400 7th Street, SW., Washington, D.C. 20590. 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: Marilyn E. Morris, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, 400 Seventh Street, SW., Washington, D.C. 20590 (202) 426-2075.

SUPPLEMENTARY INFORMATION:

Background

On July 10, 1980, MTB published Docket No. HM-139C (45 FR 46419), Conversion of Individual Exemptions to Regulations of General Applicability,

which contained the withdrawal of a previous proposal (45 FR 18994) that would have authorized a standardized packaging for small quantities of specified hazardous materials. MTB made an attempt in that Docket to create a standardized packaging, based on three DOT exemptions (7755, 7921, 8116), which were to be referenced in § 173.4. The resulting comments were in such disagreement that MTB decided to withdraw the proposal, and announced that it would address the issue of a general exception for analytical standards separately at a later date.

The Scientific Apparatus Makers Association (SAMA), which represents leading firms engaged in the design, manufacture, and distribution of high technology instruments, petitioned MTB to reconsider several of SAMA's suggested approaches for resolving the issues surrounding a standardized packaging for small quantities of certain hazardous materials. Pursuant to the SAMA petition, MTB has carefully considered eight DOT exemptions (7755, 7921, 8116, 8285, 8292, 8423, 8581, and 8658) which authorize several different packaging techniques for small quantities, and concludes that all of the affected exemptions can be accommodated under the standardized packaging proposed herein.

Basic requirements. MTB is proposing in this notice to grant significant relief from the Department's Hazardous Materials Regulations under specified conditions. The proposal applies only to small quantities of flammable liquids, flammable solids, oxidizing materials, organic peroxides, corrosive materials, Poison B, ORM A, B and C, and limited quantity radioactive materials which also meet the definition of these other hazard classes. The quantity limitation per inner receptacle would be 25 milliliters for liquids and 25 grams for solids except, in the case of poisons, the allowable quantity would be based on the LD 50 value of the material. Each inner receptacle would be packed in a secondary packaging with sufficient cushioning material and with a material that would absorb the entire contents of each receptacle containing a liquid. The secondary packaging would be securely packed in an outside package meeting the basic requirements of § 173.24. The package would have to be capable of passing drop tests consistent with those specified for materials of packing Group I in the U.N. Recommendations for the Safe Transport of Dangerous Goods and a compression test similar to the test required by § 173.398(b)(3)(v).

The package would not have to be marked with the shipping name of the material or bear a hazard warning label.

However, the shipper would be required to place inside the package a statement certifying compliance with the proposed new section. Also, the name and address of the shipper would have to be included in the statement and displaced on the outside of the package. The exception would be limited to the person who prepares the package for shipment; therefore, repacking or other changes to the packaging would not be authorized under the exception.

While the proposed rule would authorize a wide range of hazardous materials to be placed in such a package, materials assigned certain identification numbers in §§ 172.101 and 172.102 would not be authorized under the exception unless specifically approved by the Associate Director for HMR. This limitation is believed necessary due to the significant risks presented by the materials identified in the list. For example, it may be necessary for persons seeking approval to use a rigid secondary packaging such as a high density polyethylene box, in order to preclude crushing and possible release of a strong oxidizer, even though the basic provisions of the proposed rule are rather conservative in assuring an acceptable level of safety for its application.

In subsequent correspondence supporting its petition, SAMA stated it ". . . estimates that if the Department of Transportation adopts our petition to deregulate small quantities of materials previously designated 'hazardous' by DOT, a savings to industry would approach the \$25 million level (a conservative figure). This figure includes shipping costs, direct labor, and an estimate of overhead." While MTB agrees that considerable savings would result from the adoption of the proposal, it must be emphasized that this proposal cannot be characterized as "deregulation" but rather a significant reduction in the level of regulation that will apply to a significant number of shipments due to their quantity and manner in which they will be offered for transportation.

Requirements for radioactive materials. Although MTB is presently considering requirements for the transportation of limited quantity radioactive material proposed in Docket HM-166F; Notice No. 81-8 (48 FR 81908, December 21, 1981) the regulatory changes proposed for these materials in this Docket are significantly broader and it was determined they should be open for public comment. This proposal addresses only those limited quantities of radioactive materials which also meet the definition of one or more of the other

hazard classes addressed in § 173.3, since it is reasoned that shippers of limited quantity radioactive materials not meeting the definition of another hazard class would elect to comply with the requirements of § 173.391(a). To qualify for this general exception from the HMR, these packages would first have to meet activity and external dose rate limitations, and other criteria specified in § 173.391(a). To further assure an acceptable level of safety these materials would also be subject to the quantity limits appropriate to the additional hazard.

Renewal of exemption for limited quantity radioactive materials. Though normally handled in Docket No. HM-149, MTB is taking this opportunity to propose the renewal for two years of the limited exemption found at 49 CFR 172.204(c)(4), 175.10(a)(6), and 175.700(c) for air transportation of small quantities of materials exhibiting very low levels of radiation.

Conforming with Section 107 of the Hazardous Materials Transportation Act (49 U.S.C. 1806) governing exemptions, the exemption in the sections cited above is limited to a two-year life unless reexamined and renewed. The exemptions were last renewed under Docket HM-149C (46 FR 24184, April 30, 1981). The legal background and regulatory history of these exemptions are discussed in a preceding notice of proposed rulemaking (42 FR 16459, March 28, 1977). As the exemptions are due to expire on May 2, 1983, MTB proposes to renew them if, following receipt and review of comments, it finds that the renewal is consistent with the public interest and safety.

The following terms from the Federal Register Thesaurus of Indexing Terms apply to this notice of proposed rulemaking.

List of Subjects

49 CFR Part 172

Hazardous materials transportation, Labeling, Packaging and containers.

49 CFR Part 173

Hazardous materials transportation, Packaging and containers.

49 CFR Part 175

Air carriers and radioactive materials.

In consideration of the foregoing, 49 CFR Parts 172, 173, and 175 would be amended as follows:

PART 172—HAZARDOUS MATERIALS TABLES AND HAZARDOUS MATERIALS COMMUNICATIONS REGULATIONS

1. In § 172.204, paragraph (c)(4) would be revised to read as follows:

§ 172.204 Shippers' certification.

* * * * *

(c) * * *
(4) *Radioactive material.* Each person who offers any radioactive material for transportation aboard a passenger-carrying aircraft shall sign (mechanically or manually) a printed certificate stating that the shipment contains radioactive material intended for use in, or incident to, research, or medical diagnosis or treatment. Prior to May 3, 1985, this provision does not apply to materials meeting the requirements of § 173.391(a), (b) or (c) of this subchapter in effect on May 3, 1983.

PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

2. In § 173.3, paragraph (d) would be added to read as follows:

§ 173.3 Packaging and exceptions.

* * * * *

(d) Small quantities of flammable liquids, flammable solids, oxidizers, organic peroxides, corrosive materials, poison B, and ORM A, B, C, and radioactive materials that also meet the definition of one or more of the hazard classes listed above, are not subject to any other requirements of this subchapter if—

(1) The maximum quantity of material per inner receptacle is limited to:

(i) 25 milliliters for authorized liquids, other than poisons;

(ii) 25 grams for authorized solids other than poisons;

(iii) The LD₅₀ value (in milligrams) for oral or dermal toxicity (whichever is most restrictive) of any material meeting the definition of poison B according to the criteria specified in § 173.343; and

(iv) In addition, radioactive materials must meet the criteria specified in § 173.391(a), except such materials may not be offered for transportation by air under the provisions of this section after May 2, 1985.

(2) Each inner receptacle will not become liquid-full at 130°F, and is constructed of earthenware, glass, or metal, or plastic having a minimum thickness of no less than 0.008 inch (0.2 mm);

(3) Each inner receptacle with a removable closure has its closure held securely and effectively in place with wires, tape, or other positive means;

(4) Each inner receptacle is securely packed in an inside packaging with cushioning and absorbent material that will not react chemically with the material and will absorb the entire content (if a liquid) of the receptacle, unless equivalent absorbent material surrounds the inside packaging;

(5) The inside packaging is securely packed in a strong outside packaging;

(6) The completed package, as demonstrated by prototype testing, is capable of sustaining—

(i) A compressive load in pounds determined by multiplying by two the maximum cross section (in square inches) of the package without a substantial reduction in its effectiveness. The load shall be applied during a period of 24 hours, uniformly against the top and bottom of the package in the position in which the package would normally be transported.

(ii) Any of the following 6-foot free drops onto a solid, unyielding surface without breakage or leakage of any inner receptacle, and without a substantial reduction in the effectiveness of the package;

(A) One drop flat on bottom;

(B) One drop flat on top;

(C) One drop flat on the long side;

(D) One drop flat on the short side;

and

(E) One drop on a corner at the junction of three intersecting edges;

(7) Placement of the material, or packing it with different materials, in the package will not result in a violation of §§ 173.21 or 173.25;

(8) The gross weight of the completed package does not exceed 29.48 kilograms (65 pounds);

(9) The shipper places in the package a written certification that "This package conforms to conditions and limitations specified in 49 CFR § 173.3" and both the statement and the package markings include the name and address of the shipper who completed the package for first shipment;

(10) The package is not opened or otherwise altered until it is no longer in commerce; and

(11) The package, unless approved by the Associate Director for HMR, does not contain a material assigned any of the following identification numbers associated with the materials description in §§ 172.101 or 172.102 (see Appendix A thereto) of this subchapter:

1092	1491	2495
1131	1504	2526
1259	1749	2813
1380	1798	2845
1397	1831	2924
1419	1873	2925
1422	2031	9191
1432	2032	9193
1433		

and (3) does not require an environmental impact statement under the National Environmental Policy Act (49 U.S.C. 4321 et seq.). A regulatory evaluation and an environmental assessment are available for review in the Docket. I certify that this proposed regulation, if published as a final rule, will not have a significant economic impact on a substantial number of small entities.

Issued in Washington, D.C. on November 8, 1982.

Alan J. Roberts,
Associate Director for Hazardous Materials Regulations, Materials Transportation Bureau.

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PART 175—CARRIAGE BY AIRCRAFT

3. In § 175.10, paragraph (a)(6) would be revised to read as follows:

§ 175.10 Exceptions.

(a) * * *

(6) Prior to May 3, 1985, radioactive materials which meet the requirements of § 173.391(a), (b), or (c) of this subchapter in effect on May 3, 1983.

* * * * *

4. In § 175.700, paragraph (c) would be revised to read as follows:

§ 175.700 Special requirements for radioactive materials.

* * * * *

(c) Except as provided in this paragraph, no person may carry aboard a passenger-carrying aircraft any radioactive material other than a radioactive material intended for use in, or incident to, research, or medical diagnosis or treatment. Prior to May 3, 1985, this prohibition does not apply to materials which meet the requirements of § 173.391(a), (b), or (c) of this subchapter in effect on May 3, 1983.

(49 U.S.C. 1803, 1804, 1808, 49 CFR 1.53, App. A to Part 1 and paragraph (a)(4) of App. A to Part 106)

Note.—The Materials Transportation Bureau has determined that this proposed regulation (1) is not a major rule under the terms of Executive Order 12291 or a significant regulation under DOT's regulatory policy and procedures (44 FR 11034); (2) does not require a Regulatory Impact Analysis;