DEPARTMENT OF TRANSPORTATION

Research and Special Programs Administration

49 CFR Parts 172 and 173

[Docket HM-187, Amdt. Nos. 172-92, 173-175]

Requirement for Small Arms Ammunition

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

ACTION: Final rule.

SUMMARY: This final rule authorizes certain types of small arms ammunition to be classed and offered for shipment as ORM-D under the Department's Hazardous Materials Regulations. This change eliminates the requirement for shipping papers when the materials are shipped domestically by surface transportation.

EFFECTIVE DATE: July 16, 1984.

FOR FURTHER INFORMATION CONTACT: Lee Jackson, Office of Hazardous Materials Regulation, Materials Transportation Bureau, Washington, D.C. 20590, (202) 426-2075.

SUPPLEMENTARY INFORMATION: On May 31, 1983, a notice of proposed rulemaking [Docket HM-187; Notice No. 83-4] was published in the Federal Register [48 FR 24146] announcing a proposal by the Materials Transportation Bureau (MTB) to add the hazardous materials description and proper shipping name entry "Small arms ammunition" under the hazard class ORM-D. The basis for MTB's action was a petition from the Sporting Arms and Ammunition Manufacturers Institute Inc. (SAAMI). On June 30, 1982, SAAMI petitioned the Office of Hazardous Materials Regulation (OHMR) to authorize the transportation of small arms ammunition classed as ORM-D rather than Class C explosives. Although the MTB recognized in its Notice the merit of the SAAMI request, it was considered too broad in scope because of the wide variety of items that would be included under the category of small arms ammunition such as blank gas cartridges, trader cartridges for machine guns, and seat ejector cartridges. Therefore, MTB noted that for the purposes of the rulemaking it was including only certain types of small arms ammunition used in rifles, shotguns, and pistols.

Twenty-three comments were received in response to the Notice. These comments were evaluated on the basis of their applicability to this particular rulemaking and their merit. Of the comments received, over half of the commenters firmly supported the addition of the optional entry "Small arms ammunition", classed as ORM-D in the hazardous materials table of 49 CFR 172.101 for domestic shipments. Most of these commenters pointed out that in their many years of experience in shipping small arms ammunition there have been relatively few incidents and no injuries that have arisen as a result of small arms ammunition posing a hazard in transportation.

Small arms ammunition contains only a relatively small amount of propellant explosive in proportion to its total weight. It will not sustain burning without additional fuel. The negligible hazard presented by packages of small arms ammunition has been confirmed by extensive tests conducted by SAAMI. In these tests, a total of 111 cases of sporting ammunition containing 145,500 pounds of the most popular types and brands of shotgun shells, rimfire cartridges, centerfire pistol and revolver cartridges, and centerfire rifle cartridges were consumed in four different tests. The tests included burning a frame building containing sporting ammunition, burning packed ammunition in an open area, burning packed sporting ammunition enclosed in a fire resistant structure, and subjecting packed ammunition to impact shocks. These series of tests confirmed the fact that mass deflagration of sporting ammunition in a fire is not probable and was not evidenced in any of the tests.

It was found that even under extreme conditions of heat and confinement, there was no indication of either mass deflagration or explosion. These tests also confirmed that there is a very limited "projection" hazard from a fire involving sporting ammunition. Where projection occurred, the materials with the highest velocity were the primer caps which, because of their non-aerodynamic shape and light weight, carried a short distance with low velocity. It was found that adequate protection would be provided if the usual protective clothing (including face mask) worn by fire protection personnel.

As was mentioned in the notice of proposed rulemaking (NPRM), MTB also reviewed a documentary film of the SAAMI tests produced in cooperation with the Fire Prevention Bureau of the City of Chicago. The MTB believes this film [illegible] limited [illegible] transporting small arms ammunition. In addition to this film, and the SAAMI tests, six [illegible] were conducted by the City of Racine, Wisconsin, Fire Department. These tests used ammunition furnished by members of SAAMI and included shotgun shells, centerfire rifle and pistol cartridges and rimfire cartridges. The tests were conducted under conditions which fire fighters and emergency response personnel might encounter. These tests confirm the SAAMI's position that the fire fighting techniques currently in use by most of the nation's fire fighters can be used to effectively and safely extinguish fires involving sporting ammunition.

The Department of Defense (DOD) expressed specific concern about the shipment of small arms ammunition overseas. They erroneously thought this proposal was applicable to all small arms ammunition shipments, and would require the remarking of all of their small arms stock on hand. Because of this misinterpretation, DOD requested that MTB initiate action with the various international bodies concerned with the movement of hazardous materials, to permit them to ship small arms ammunition overseas without the requirement for remarking or packaging. Since the transport of these materials as Class C Explosives will still be permitted and display of internationally recognized markings is not precluded, such action is not necessary to accomplish the intended purpose of this rulemaking. Class C is retained as a hazard class for small arms ammunition by not being terminated, but rather ORM-D as an option for shipping certain types of ammunition is being provided.

In addition to DOD's concern, several comments were received from representatives of organizations and associations contending that reclassifying small arms ammunition from Explosives C to ORM-D would cause major problems for emergency response personnel due to the lack of a shipping paper requirement and the changes that would occur in the marking of shipping documents. Some commenters noted it was imperative that weight carriers be notified via the shipping papers that small arms ammunition is fully regulated for the international transport by vessel. They contend that without this notification, shipboard personnel would have no knowledge that a small arms ammunition shipment was being made and, in case of an emergency, emergency response personnel would have no way of knowing where the dangerous goods are stowed on the vessel. Other commenters contend that when ammunition is offered for shipment by vessel as an ORM-D, it might not be declared under the International Maritime Organization's Dangerous Goods Code, under the goods normally would be classed as explosives having a U.N. division of 1.4. They also contend that the lack of shipping papers and the change in marking requirements would reduce the right control over the commodity which may lead to not only improper stowage of these materials on vessels, but increase the potential for problems, delays, and penalties for carriers and importers at overseas ports.

Under the regulations as they now exist, shipping papers indicate to water carriers that small arms ammunition is a regulated item in the water mode. MTB believes that these concerns are

unwarranted because the addition of the entry "Small arms ammunition" as an ORM-D will not prohibit a shipper from using the original classification of small arms ammunition as a Class C explosive, nor does it waive the requirements of any international regulation with which an international shipper may have to comply. Regarding the point that the lack of shipping papers and change in marking requirements would reduce the tight control over the commodity and lead to the ammunition not being identified to an ocean carrier as being subject to International Maritime Organization (IMO) rules, MTB believes that this problem is no different than the problems involving other materials that are regulated differently by IMO and DOT. MTB is constantly involved in striking a balance between a strong desire for compatibility with international standards and establishing appropriate levels of regulation for materials in domestic commerce.

A similar comment concerning the need for shipping papers was received from the County of Ventura Fire Protection District of Camarillo, California, stating that shipping papers should be required because of the potential for the release of toxic gases when certain types of small arms ammunition are subjected to heat and detonation. They stated that as a result of toxic gases being released, nitrogen compounds can be released in large quantities along with amines and other gases which could cause pulmonary edema along with other physical symptoms and lead to the deterioration of vital body functions. In response to these comments, MTB doesn't believe the toxic products of combustion that are present in small arms ammunition fires will be any greater than those toxic gases that would be released during a fire involving a large number of materials that are not regulated as hazardous materials. It is for this reason that the new 1984 issue of the DOT Emergency Response Guidebook contains explicit precautionary instructions for emergency service personnel to be followed when they approach the scene of an accident involving any cargo (not only regulated hazardous materials.)

This same commenter made reference to the accident record of those shippers transporting small arms ammunition, suggesting that it leaves something to be desired. A review of hazardous materials incidents reported to the MTB involving shipments of small arms ammunition revealed that over the last decade there have been no fires, explosions, or hazardous situations reported that were a result of the transportation of small arms ammunition. The majority of these incidents involved broken packagings which permitted individual cartridges to spill out. These were simply collected and repackaged. MTB believes that this record confirms that the transportation of certain types of small arms ammunition poses only a minimal hazard. This belief is supported by correspondence from a representative of a major ammunition manufacturer who states that in shipping his products domestically and internationally for over 29 years there has only been one accident in which his product was involved in a fire, and there were no injuries or deaths as a result of that accident.

This same ammunition manufacturer provided cost data showing that as a result of this final rule there could be a reclassification made to the freight class rating of certain types of small arms ammuniton by the National Motor Freight Classification Board which could possibly result in a transportation cost savings in excess of $1,000,000 for the industry. This is a potential cost saving in excess of that suggested by SAAMI. Information furnished by SAAMI indicated that savings to their members on shipments by one motor carrier alone would be approximately $100,000 per year. Although MTB solicited comments from interested parties on the cost savings and burden reduction associated with this rule, only these two estimates were received. MTB does believe that these figures indicate that the cost savings and burden reduction associated with this rule may be substantial.

The IAFC and two other commenters also proposed that placards be required for small arms ammunition and other class C explosive shipments. MTB believes that the minimal hazard posed by small arms ammunition classed as ORM-D material does not warrant the placarding of vehicles. Therefore, this suggested change is not adopted.

One commenter representing an ammunition manufacturer supported the addition of the entry "Small arms ammunition", but proposed that this classification include ammunition for revolvers and industrial 8 gauge ammunition. MTB believes this to be a reasonable request based on the fact that ammunition for revolvers (a type of pistol) is considered to already be included under this rule, and industrial 8 gauge ammunition is considered to pose no greater hazard in transportation than the other classes and types of ammunition under this rule. Therefore, these changes are adopted in this final rule.

The Institute for Legislative Action of the National Rifle Association was in general agreement with SAAMI's proposal, but suggested that the proposed § 173.1201 be amended by adding the word "projectile" after the description "detonating explosive" and by increasing the caliber for rifle and pistol ammunition from 45 caliber to 50 caliber. The MTB believes that the addition of the word "projectile" may serve to clarify the applicability of this section and for this reason adopts this addition in the text of this section. MTB also believes that increasing the caliber of ammunition in this section from 45 to 50 caliber is acceptable, and would not present any significant additional hazard. For this reason, this change is also adopted.

One commenter representing the Air Transport Association expressed as his chief concern the fact that the ORM-D classification for small arms ammunition does not provide for weight limitations when carried in inaccessible cargo compartments on aircraft. MTB believes that placing gross weight limitations on the number of packages permitted in an inaccessible cargo compartment is unnecessary, as packages of small arms ammunition, ORM-D, pose no greater hazard than other ORM-D materials which are not subject to such limitations, and ORM-D shipments by air will still be required to be accompanied by shipping papers. This same commenter suggested the use of a marking such as "1.4S, Small arms ammunition", in addition to the marking ORM-D to enhance identification of such shipments in case of fire in any location (storage, unit load device, etc.). MTB has not adopted this suggestion; however, there is nothing to preclude a shipper from displaying 1.4S on packages, if they comply with international standards (including competent authority approval) for that class and division. In their concluding comment, this same air carrier association stated that this proposal, although not controversial, was not directed toward a commonality with the International Civil Aviation Organization (ICAO) Regulations. MTB's response to this comment is the same as stated above relative to international shipments by vessel.

Based on the comments received and considering the testing programs that confirm the limited risk of certain types of small arms ammunition, MTB believes that the addition of small arms ammunition under the ORM-D hazard

class is justified. Therefore, the proposal contained in Notice No. 83-2 is revised in accordance with the foregoing discussion and for editorial clarity and is adopted in this final rule.

List of Subjects

49 CFR Part 172

Hazardous materials transportation, Packaging, Containers.

49 CFR Part 173

Hazardous materials transportation, Packaging, Containers.

In consideration of the foregoing, Parts 172 and 173 of Title 49 of the Code of Federal Regulations is amended as follows:

* * * * *

PART 172—HAZARDOUS MATERIALS TABLES AND HAZARDOUS MATERIALS COMMUNICATIONS REGULATIONS

1. In § 172.101, the Hazardous Materials Table is amended by adding the following entry:

§ 172.101 Purpose and use of hazardous materials table.

* * * * *

HAZARDOUS MATERIALS TABLE

HEAW	Hazardous materials descriptions and proper shipping names	Hazard class	Identification number	Label(s) required (if not excepted)	Packaging		Maximum net quantity in one package		Water shipments		
					Exceptions	Specific requirements	Passenger carrying aircraft or railcar	Cargo aircraft only	Cargo vessel	Passenger vessel	Other requirements
(1)	(2)	(3)	(3a)	(4)	(5a)	(5b)	(6a)	(6b)	(7a)	(7b)	(7c)
	Small arms ammunition	ORM-D		None	173.101	173.1201	65 pounds gross.	65 pounds gross.			

PART 173—[AMENDED]

2. Section 173.101 is amended by the addition of paragraph (g) to read as follows:

§ 173.101 Small arms ammunition.

* * * * *

(g) Special exceptions for certain types of small arms ammunition in the ORM-D class are provided in Subpart N of this part.

3. Subpart N of Part 173 is amended by adding a new § 173.1201 as follows:

§ 173.1201 Small arms ammunition.

(a) Small arms ammunition which has been classed as a Class C explosive may be re-classed and offered for transportation as ORM-D material (See 173.500 of this Part) if it is packaged in accordance with paragraph (b) of this section. Small arms ammunition that may be shipped as ORM-D is limited to:

(1) Amunition for rifle, pistol, or shotgun;

(2) Ammunition with inert projectiles or blank ammunition;

(3) Ammunition having no tear gas, incendiary, or detonating explosive projectiles; and

(4) Ammunition not exceeding 50 caliber for rifle or pistol cartridges or 8 gauge for shotshells.

(b) Packaging for small arms ammunition as ORM-D must be as follows:

(1) Ammunition must be packed in inside boxes, or in partitions which fit snugly in the outside packaging or in metal clips;

(2) Primers must be protected from accidental initiation;

(3) Inside boxes, partitions or metal clips must be packed in securely closed strong outside packagings; and

(4) Maximum gross weight is limited to 65 pounds per package.

(49 U.S.C. 1803, 1804, 49 CFR 1.53, App. A to Part 1)

Note.—The MTB has determined that this document does not constitute a "major rule" under the terms of Executive Order 12291 or a significant regulation under DOT's regulatory policy and procedures (44 CFR 11034) or require an environmental impact statement under the National Environmental Policy Act (49 U.S.C. 4321 *et seq.*). I certify that this document does not have a significant economic impact on a substantial number of small entities because any benefit that accrues to small shippers would itself be small. A regulatory evaluation and environmental assessment are available for review in the docket.

Issued in Washington, D.C. on May 17, 1984.

L. D. Santman,

Director, Materials Transportation Bureau.

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U.S. Department of Transportation

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