

Environmental Protection Agency

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Part IV

Department of Transportation

Research and Special Programs
Administration

49 CFR Part 172

Classification of Gases Which Are Toxic
by Inhalation; Proposed Rule

DEPARTMENT OF TRANSPORTATION

49 CFR Part 172

[Docket No. HM-181, Notice No. 89-5]

RIN 2137-AA01

Classification of Gases Which Are Toxic by Inhalation

AGENCY: Research and Special Programs Administration (RSPA), DOT.**ACTION:** Supplemental notice of proposed rulemaking.

SUMMARY: RSPA is modifying the proposals contained in Docket HM-181, Notice 87-4 (52 FR 42772) to retain the current classification of anhydrous ammonia as a nonflammable gas, rather than to reclassify the material as a poisonous gas, with the addition of an "INHALATION HAZARD" warning as a mechanism for hazard communication. This action is being taken so that RSPA can address other substantive issues under Docket HM-181 in a timely manner.

ADDRESSES: Address comments to the Dockets Unit, Research and Special Programs Administration, Department of Transportation, Washington, DC 20590. Comments should identify the docket and notice number and be submitted in five copies. Persons wishing to receive confirmation of receipt of their comments should include a self-addressed stamped postcard. The Dockets Unit is located in Room 8421 of the Nassif Building, 400 Seventh Street SW., Washington, DC 20590. Public dockets may be reviewed between the hours of 8:30 a.m., and 5:00 p.m., Monday through Friday, except holidays.

DATE: Comments must be received on or before October 24, 1989.

FOR FURTHER INFORMATION CONTACT: Ann Boylan, Standards Division, telephone (202) 366-4488, or James K. O'Steen, Chief, Technical Division, telephone (202) 366-4545, Office of Hazardous Materials Transportation, U.S. Department of Transportation, 400 Seventh Street SW., Washington, DC 20590.

SUPPLEMENTARY INFORMATION: On May 5, 1987, RSPA published a notice of proposed rulemaking (NPRM) (Docket

No. HM-181; Notice 87-4) in the Federal Register (52 FR 16482) that proposed sweeping changes in the Hazardous Materials Regulations (HMR), including the adoption of performance-oriented packaging standards and changes in hazard communication, hazard classification and bulk packaging requirements. Notice 87-4 was republished on November 6, 1987 (52 FR 42772), containing corrections and supplemental proposals to the May 5, 1987 publication.

RSPA received over one thousand comments in response to Notice 87-4, at least seven hundred of which addressed the proposed classification criteria for poisonous gases. Particular and widespread attention was directed to the proposal to change the classification of anhydrous ammonia from a nonflammable gas to a poisonous gas. In reviewing these comments, RSPA noted some specific points of misunderstanding and a lack of sufficient information concerning potential impacts arising from the proposed action. As a result, RSPA published a supplemental NPRM in the Federal Register on November 14, 1988 (Notice 88-7; 53 FR 45868). Notice 88-7 sought to clarify the reclassification proposals, suggested possible regulatory alternatives, and requested substantive comments on potential impacts. The interested reader is referred to Notice 88-7 for additional background information.

RSPA issued its proposal because the classification "poisonous gas" would be the most accurate technical description of the inhalation hazards of anhydrous ammonia in accordance with the definition proposed in § 173.115(c). Over four hundred and fifty comments were received in response to Notice 88-7. Although RSPA has not completed a thorough review of these comments, they do reveal significant controversy concerning the proposed reclassification based on various claims of severe potential adverse impacts.

RSPA has not had the opportunity to perform, or have performed, a comprehensive evaluation of this issue to document potential impacts. An evaluation of this nature would entail, at a minimum, a quantitative analysis of current freight and insurance rates and

any potential changes to those rates and an assessment of current and projected insurance and transportation availability. It would be a resource-intensive undertaking. Further delay in resolving this issue may be unacceptable to the regulated industry, particularly the farm community. Also because of the drain on RSPA's limited resources which this issue has entailed, it would be counterproductive to accomplishment of the overall rulemaking action on other important aspects of Docket HM-181. Failure to move HM-181 forward in a timely manner would further delay its other important safety initiatives. Delay may also impose on U.S. industry an impediment to international trade because after December 31, 1990, certain transitional packaging provisions contained in international regulations, under which DOT packagings are currently acceptable, will expire. RSPA believes that the safety advantages of proposing reclassification in this docket do not justify the further delay that would be necessary at this time to fully evaluate the claimed potential impacts. Therefore, RSPA has elected to pursue an alternative to the proposed reclassification which does not entail the claimed potential impacts, but would improve the communication of hazard for anhydrous ammonia.

One of the possible options discussed in the supplemental notice was reclassification of anhydrous ammonia as a corrosive gas. Although the Canadian regulations classify anhydrous ammonia as a corrosive gas, RSPA believes that the corrosive gas classification has three important shortcomings. First, use of corrosive gas would require the creation of a new classification category ("corrosive gas") which is not a part of U.S. or international hazardous materials regulations. A corrosive gas class would complicate the total classification system and create an important inconsistency with the international classification system. International hazardous materials transportation regulations classify anhydrous ammonia as a poisonous and flammable gas. Second, creation of a corrosive gas class could raise questions about the reclassification of a number of other

materials. The Canadian corrosive gas class includes a number of chemicals, some of which are as much as ten times more toxic than anhydrous ammonia. RSPA believes that adoption of a corrosive gas classification for materials with such severe inhalation hazards would not provide a sufficient level of hazard communication for these materials. Third, classification of anhydrous ammonia as a corrosive gas may have the same impact as alleged for the poisonous gas classification, that is, it may result in increased insurance and transportation costs.

As RSPA has noted throughout its deliberations on the HM-181 rulemaking, communication to emergency responders and the general public is an important safety consideration. For emergency responders, the presence of a label or placard and the four-digit identification number ("UN1005" for anhydrous ammonia), when used with the DOT Emergency Response Guidebook, provides quick and accurate identification of a material and its hazards. In contrast, the symbol on the label or placard and packaging markings are the primary way the general public is informed of the hazard posed by a material. Although the international poison symbol (skull and crossbones) in combination with an inhalation hazard marking would provide an incremental enhancement in the communication of the hazard of anhydrous ammonia to the public, that enhancement may not be justified when measured against the claimed potential adverse impacts. RSPA believes that an inhalation marking in combination with a nonflammable gas label or placard would improve the current communication of anhydrous ammonia's inhalation hazard for both emergency responders and the general public with minimal impact on shippers, transporters, and users.

Therefore, under the materials classification scheme proposed in HM-181, RSPA is now proposing to classify

anhydrous ammonia as a Division 2.2 nonflammable compressed gas for domestic transportation, consistent with its classification under current regulations. Because of the documented inhalation hazards of anhydrous ammonia when released in large quantities, RSPA is also proposing to require the words "INHALATION HAZARD" on packages and shipping papers, in addition to other current hazard communication requirements. The choice of this alternative will enable RSPA to progress with the HM-181 rulemaking, improve hazard communication for anhydrous ammonia and minimize any potential adverse impacts.

Review by Sections

Section 172.101

In Notice 87-4 on page 42793 the Hazardous Materials Table is modified by adding a new entry for "Ammonia, anhydrous liquefied", with (a) a "D" in column (1) to indicate that this entry is for domestic transportation, (b) the hazard class of "2.2" in column (3), and (c) the label of "NONFLAMMABLE GAS" in column (6). The existing entry on page 42793 for "Ammonia, anhydrous liquefied" is revised by placing an "I" in column (1), to indicate that this entry is acceptable for describing the material for international transportation.

Section 172.102

In the table of special provisions on page 42932, a new code 14 would be added, proposing that the words "Inhalation Hazard" be entered on a shipping paper in association with the shipping description and be marked on the package in association with the required label or placards.

Administrative Notices

Executive Order 12291

The RSPA has determined that this rulemaking (1) is not "major" under Executive Order 12291; (2) is "significant" under DOT's regulatory

policies and procedures (44 FR 11034); (3) will not affect not-for-profit enterprises or small governmental jurisdictions; and (4) does not require an environmental impact statement under the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*) A regulatory evaluation is available for review in the Docket.

Executive Order 12612

This action has been analyzed in accordance with the principles and criteria contained in Executive Order 12612, and it has been determined that the proposed rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Impact on Small Entities

Based on the minimal impact of the proposals contained herein, I certify that the regulations proposed herein would not, if adopted, have a significant economic impact on a substantial number of small entities.

List of Subjects in 49 CFR Part 172

Hazardous materials transportation.

PART 172—[AMENDED]

Docket HM-181, Notice No. 87-4, published on May 5, 1987 (52 FR 16482) is modified as follows:

PART 172—HAZARDOUS MATERIALS TABLE AND HAZARDOUS MATERIALS COMMUNICATION

1. The authority citation for Part 172 continues to read as follows:

Authority: 49 App. U.S.C. 1802, 1803, 1804, 1808; 49 CFR Part 1, unless otherwise noted.

§ 172.101 [Amended]

2. In the Hazardous Materials Table on page 42793, the proposed entry for "Ammonia, anhydrous liquefied" is revised and a new entry is added to read as follows:

Sym- bols	Hazardous materials descriptions and proper shipping names	Hazard class	Identifi- cation Num- bers	Pack- ing group	Labels	Special provi- sions	(8) Packaging authorizations (§ 172.***)			(9) Quantity limitations		(10) Vessel stowage requirements		
							Excep- tions	Non- bulk pack- aging	Bulk pack- aging	Pas- senger aircraft or railcar	Cargo aircraft only	Cargo vessel	Pas- senger vessel	Other stow- age provi- sions
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)	(10C)
ADD: D.....	Ammonia, anhydrous liquefied.	2.2	UN1005...	NON- FLAM- MABLE GAS.	14	None	304	314, 315	Forbid- den.	Forbid- den.	1.2	5	40, 57
REVISE I.....	Ammonia, anhydrous liquefied.	2.3	UN1005..	III	POISON GAS.	10	None	304	314, 315	Forbid- den.	Forbid- den.	1.2	5	40, 57

3. On page 42932 paragraph (c)(1) of § 172.102, a new Code 14 would be added in proper numerical order as follows:

Code	Special provisions
14.....	The words "Inhalation Hazard" shall be entered on each shipping paper in association with the shipping description, shall be marked on each non-bulk package in association with the proper shipping name and identification number, and shall be marked on two opposite sides of each bulk package. Size of markings on bulk packages must conform to § 173.302(b) of this subchapter.

Issued in Washington, DC on July 21, 1989 under authority delegated in 49 CFR Part 1.

Alan I. Roberts,

Director, Office of Hazardous Materials Transportation.

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