



DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Part 171

[Docket No. PHMSA-2025-0089 (HM-268A)]

RIN 2137-AG03

Hazardous Materials: Reducing Burdens on Domestic Aerosol Shippers

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), Department of Transportation (DOT).

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This NPRM proposes to update the definition of an aerosol to eliminate unnecessary regulatory burdens and maintain consistency with current international transportation standards.

DATES: Comments must be received on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may submit comments identified by the Docket Number PHMSA-2025-0089 using any of the following methods:

E-Gov Web: <https://www.regulations.gov>. This site allows the public to enter comments on any Federal Register notice issued by any agency. Follow the online instructions for submitting comments.

Mail: Docket Management System: U.S. Department of Transportation, 1200 New Jersey Avenue SE, West Building Ground Floor, Room W12-140, Washington, D.C. 20590-0001.

Hand Delivery: U.S. DOT Docket Management System: West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Fax: 1-202-493-2251.

Instructions: Please include the docket number PHMSA-2025-0089 at the beginning of your comments. If you submit your comments by mail, submit two copies. If you wish to receive confirmation that PHMSA received your comments, include a self-addressed stamped postcard. Internet users may submit comments at <https://www.regulations.gov>.

Note: Comments are posted without changes or edits to <https://www.regulations.gov>, including any personal information provided. There is a privacy statement published on <https://www.regulations.gov>.

Privacy Act: In accordance with 5 U.S.C. § 553(c), DOT solicits comments from the public to inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to <https://www.regulations.gov>, as described in the system of records notice (DOT/ALL-14 FDMS), which can be reviewed at <https://www.dot.gov/privacy>.

Confidential Business Information: Confidential Business Information (CBI) is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA, 5 U.S.C. § 552), CBI is exempt from public disclosure. It is important that you clearly designate the comments submitted as CBI if: your comments responsive to this document contain commercial or financial information that is customarily treated as private; you actually treat such information as private; and your comment is relevant or responsive to this notice. You may ask PHMSA to provide confidential treatment to information you give to the agency by taking the following steps: (1) mark each page of the original document submission containing CBI as “Confidential”; (2) send PHMSA, along with the original document, a second copy of the original document with the CBI deleted; and (3) explain why the information that you are submitting is CBI. Submissions containing CBI should be sent to Steven Andrews, Standards and Rulemaking Division, Pipeline and Hazardous Materials Safety Administration (PHMSA), 2nd Floor, 1200 New Jersey Avenue SE,

Washington, D.C. 20590-0001, or by email at steven.andrews@dot.gov. Any materials PHMSA receives that is not specifically designated as CBI will be placed in the public docket.

Docket: For access to the docket to read background documents or comments received, go to <http://www.regulations.gov>. Follow the online instructions for accessing the docket.

Alternatively, you may review the documents in person at the street address listed above.

FOR FURTHER INFORMATION CONTACT: Steven Andrews, Transportation Regulations Specialist, 1200 New Jersey Avenue, SE Washington, D.C. 20590, 202-366-8553, steven.andrews@dot.gov.

SUPPLEMENTARY INFORMATION:

I. GENERAL DISCUSSION

PHMSA proposes to revise the definition of an “aerosol” in 49 CFR § 171.8, “Definitions,” to eliminate unnecessary regulatory burdens and maintain consistency with current international transportation standards. Historically, the Research and Special Programs Administration (RSPA)—the predecessor agency to the Pipeline and Hazardous Materials Safety Administration (PHMSA)—differentiated between a compressed gas as the primary product in a container and a gas used solely as an aerosol propellant.¹ However, after decades of transportation outside the United States under the international regulations' definition, PHMSA has preliminarily determined that this distinction is unnecessary.

The Hazardous Materials Regulations (HMR) currently define an aerosol in 49 CFR § 171.8 as “an article consisting of any non-refillable receptacle containing a gas compressed, liquefied or dissolved under pressure, the sole purpose of which is to expel a nonpoisonous (other than a Division 6.1 Packing Group III material) liquid, paste, or powder and fitted with a self-closing release device allowing the contents to be ejected by the gas.” On September 28, 2017, PHMSA received a petition for rulemaking² concerning that definition from the Consumer

¹ 56 FR 55417 (Oct. 28, 1991)

² P-1707 (PHMSA-2017-0131).

Specialty Products Association (CSPA), Council on Safe Transportation of Hazardous Articles, Inc. (COSTHA), National Aerosol Association (NAA) and American Coatings Association (ACA) (collectively, Joint Petitioners). In that petition, the Joint Petitioners asked PHMSA to revise the HMR's definition of an aerosol to align with the definitions found in the United Nations Recommendations on the Transport of Dangerous Goods—Model Regulations (UNMR), the International Maritime Dangerous Goods (IMDG) Code, the International Civil Aviation Organization Technical Instructions on the Safe Transport of Dangerous Goods by Air (ICAO TI), and the Regulations governing European Road Transport (ADR). The Joint Petitioners noted that the HMR's definition for aerosol is inconsistent with its international counterpart, which does not include the limitation for gas to be used to expel a liquid, paste, or powder. Without harmonization, this results in pure gases being shipped as fully regulated compressed gases under the HMR. The exclusion of pure gases from the aerosol definition can significantly impact their regulation under the HMR, including requirements for packaging (DOT-specification cylinder versus DOT-2P or 2Q inner receptacle), hazard communication, and classification. Currently, PHMSA has special permits issued that allow the transportation of pure gases that are provided regulatory relief similar to shipments of aerosols meeting the international definition. Three examples of such special permits are DOT-SP 10232, DOT-SP 11516, and DOT-SP 10704. These special permits have all been in place for thirty years or more and have no reported safety incidents. On April 2, 2019, PHMSA responded to the Joint Petitioners by stating that the proposed revision merited further consideration.

Lack of harmonization between the HMR and international standards creates significant challenges for industry stakeholders engaged in global commerce, leading to confusion, increased compliance costs, and logistical inefficiencies, particularly for companies that manufacture, package, or transport hazardous materials across borders. Lack of harmonization also impedes trade, delays shipments, and reduces the competitiveness of U.S. businesses in the global marketplace—all of which can increase prices for U.S. consumers. Inconsistencies

between the HMR and international definitions of aerosol are no different, and PHMSA is not aware of any transportation-related safety concerns which justify that inconsistency. Therefore, PHMSA is proposing to revise the definition of an aerosol in § 171.8 to align with the international definition and no longer require that an aerosol be designed for the sole purpose of expelling a liquid, paste or powder.

II. REGULATORY ANALYSIS AND NOTICES

A. Legal Authority

This proposed rule is published under the authority of the Secretary of Transportation set forth in the Federal Hazardous Materials Transportation Laws (49 U.S.C. § 5101 *et seq.*) and delegated to the PHMSA Administrator pursuant to 49 CFR § 1.97.

B. Executive Order 12866; Regulatory Planning and Review

Executive Order (E.O.) 12866 (“Regulatory Planning and Review”),³ as implemented by DOT Order 2100.6B (“Policies and Procedures for Rulemaking”), requires agencies to regulate in the “most cost-effective manner,” to make a “reasoned determination that the benefits of the intended regulation justify its costs,” and to develop regulations that “impose the least burden on society.” DOT Order 2100.6B specifies that regulations should generally “not be issued unless their benefits are expected to exceed their costs.” In arriving at those conclusions, E.O. 12866 requires that agencies should consider “both quantifiable measures . . . and qualitative measures of costs and benefits that are difficult to quantify” and “maximize net benefits . . . unless a statute requires another regulatory approach.” E.O. 12866 also requires that “agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating.” DOT Order 2100.6B directs that PHMSA and other Operating Administrations must generally choose the “least costly regulatory alternative that achieves the relevant objectives” unless required by law or compelling safety need.

³ 58 FR 51735 (Oct. 4, 1993).

E.O. 12866 and DOT Order 2100.6B also require that PHMSA submit “significant regulatory actions” to the Office of Information and Regulatory Affairs (OIRA) within the Executive Office of the President’s Office of Management and Budget (OMB) for review. This proposed rule is a not significant regulatory action pursuant to E.O. 12866; it also has not designated this rule as a “major rule” as defined by the Congressional Review Act (5 U.S.C. § 801 *et seq.*).

PHMSA has complied with the requirements in E.O. 12866 as implemented by DOT Order 2100.6B and preliminarily determined that this proposed rule will result in cost savings by reducing regulatory burdens and regulatory uncertainty for manufacturers and shippers of aerosols. PHMSA expects that cost savings will focus on those related to the reduction in burden for new special permit applications (*e.g.*, new entrants to the market) and renewals for current special permit holders, as well as cost savings from the ability to transition to a single system of marks, labels, and documentation for domestic and international transport. PHMSA expects those cost savings will result in reduced costs for U.S. consumers to whom those entities generally transfer a portion of their compliance costs.

The change to align the HMR definition of aerosols with international standards (including the UN Model Regulations, IMDG Code, ICAO Technical Instructions, and ADR) is not expected to impose any new direct costs on U.S. aerosol manufacturers, shippers, or federal regulatory agencies. The revision will expand regulatory flexibility by permitting the classification of gas-only aerosols without necessitating the presence of a liquid, paste, or powder. As a result, there are no new compliance, implementation, or oversight burdens anticipated.

The change offers multiple sources of cost savings and regulatory relief. The current U.S. definition excludes gas-only aerosols from qualifying for limited quantity exceptions, requiring their treatment as fully regulated hazardous materials. Aligning with international standards would eliminate added costs for qualifying products, streamlining logistics and

reducing compliance burdens, such as, preparation of shipping papers, payment of hazmat transportation surcharges, investment in extensive employee training, additional requirements for storage and documentation. In addition, companies currently operating under special permits to ship gas-only aerosols incur labor and administrative costs related to marking packages, using specific packaging, maintaining, and renewing permits every two to four years, providing permit-specific training to relevant staff. PHMSA has issued dozens of special permits in different forms that allow for the transportation of pure gases in a manner equivalent to using the international definition of an aerosol. Examples of operational controls under these special permits include relaxation of the packaging requirements to allow transportation DOT-2P, 2Q, or similar inner receptacles, and elimination of shipping papers, and placarding requirements. Elimination of the special permit requirement would produce direct labor cost savings and reduce administrative overhead for both the private sector and PHMSA. Harmonization with international definitions would simplify cross-border trade by eliminating inconsistencies in classification and labeling. U.S. companies currently face trade friction when exporting aerosols that qualify under international definitions but not under U.S. rules. By adopting the broader international standard, U.S. manufacturers and marketers would gain improved access to the global aerosol market. This change would enhance the international competitiveness of U.S. aerosol products, enabling companies to increase market share and reduce barriers to export. The regulatory change is broadly expected to increase efficiency in transportation and logistics, lower product costs for businesses and potentially for consumers, and foster economic activity by reducing barriers to entry.

In summary, PHMSA requests feedback from stakeholders on: 1) the overall economic impact of the proposed HMR revisions; 2) the overall expected impact on the transportation of aerosol products and their prices, and 3) the anticipated market impact of the proposed revisions. PHMSA also welcomes any comments from stakeholders on anticipated specific economic impacts of the proposed rule.

C. Executive Orders 14192 and 14219

This proposed rule, if finalized as proposed, is expected to be an E.O. 14192 deregulatory action.⁴ PHMSA seeks data that would be helpful to generate an estimate of the cost savings from this rule. PHMSA’s initial estimates are that the total costs of the rule on the regulated community will be less than zero. Nor does this proposed rule does implicate any of the factors identified in section 2(a) of E.O. 14219 indicative of a regulation that is “unlawful . . . [or] that undermine[s] the national interest.”⁵

D. Energy-Related Executive Orders 13211, 14154, and 14156

The President has declared in E.O. 14156 (“Declaring a National Energy Emergency”)⁶ a national emergency to address the United States’s inadequate energy development production, transportation, refining, and generation capacity. Similarly, E.O. 14154 (“Unleashing American Energy”)⁷ asserts a Federal policy to unleash American energy by ensuing access to abundant supplies of reliable, affordable energy from (inter alia) the removal of “undue burden[s]” on the identification, development, or use of domestic energy resources such as PHMSA-jurisdictional affected entities. PHMSA preliminarily finds this proposed rule is consistent with each of E.O. 14156 and E.O. 14154 because it will not impose any burden on the transportation of energy or energy-related products.

However, this proposed rule is not a “significant energy action” under E.O. 13211 (“Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use”),⁸ which requires Federal agencies to prepare a Statement of Energy Effects for any “significant energy action.” Because this proposed rule is not a significant action under E.O.

⁴ 90 FR 9065 (Jan. 31, 2025).

⁵ 90 FR 10583 (Feb. 19, 2025).

⁶ 90 FR 8353 (Jan. 29, 2025).

⁷ 90 FR 8353 (Jan. 29, 2025).

⁸ 66 FR 28355 (May 22, 2001).

12866, it will not have a significant adverse effect on supply, distribution, or energy use; and OIRA has therefore not designated this proposed rule as a significant energy action.

E. Executive Order 13132: Federalism

PHMSA analyzed this proposed rule in accordance with the principles and criteria contained in E.O. 13132 (“Federalism”)⁹ and the Presidential Memorandum (“Preemption”) published in the Federal Register on May 22, 2009.¹⁰ E.O. 13132 requires agencies to assure meaningful and timely input by State and local officials in the development of regulatory policies that may have “substantial direct effects on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government.” The Federal Hazardous Materials Transportation Laws contain an express preemption provision at 49 U.S.C. § 5125(b) that preempts state, local, and tribal requirements on certain covered subjects, unless the non-federal requirements are “substantively the same” as the federal requirements, including the following:

- (1) The designation, description, and classification of hazardous material;
- (2) The packing, repacking, handling, labeling, marking, and placarding of hazardous material;
- (3) The preparation, execution, and use of shipping documents related to hazardous material and requirements related to the number, contents, and placement of those documents;
- (4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; and
- (5) The design, manufacture, fabrication, inspection, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material in commerce.

⁹ 64 FR 43255 (Aug. 10, 1999).

¹⁰ 74 FR 24693 (May 22, 2009).

This proposed rule addresses covered subject items in paragraph I above and would preempt state, local, and Tribal requirements not meeting the “substantively the same” standard. While the proposed rule may (when finalized) operate to preempt some State requirements, it would not impose any regulation that has substantial direct effects on the States, the relationship between the National Government and the States, or the distribution of power and responsibilities among the various levels of government. The preemptive effect of the regulatory amendments in this proposed rule is limited to the minimum level necessary to achieve the objectives of the Federal Hazardous Materials Transportation Laws. Therefore, the consultation and funding requirements of E.O. 13132 do not apply.

F. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. § 601 et seq.) requires Federal agencies to conduct an Initial Regulatory Flexibility Analysis (IRFA) for a proposed rule subject to notice-and-comment rulemaking under the APA unless the agency head certifies that the proposed rule in the rulemaking will not have a significant economic impact on a substantial number of small entities. E.O. 13272 (“Proper Consideration of Small Entities in Agency Rulemaking”)¹¹ obliges agencies to establish procedures promoting compliance with the Regulatory Flexibility Act. DOT posts its implementing guidance on a dedicated webpage.¹² This proposed rule was developed in accordance with E.O. 13272 and DOT implementing guidance to ensure compliance with the Regulatory Flexibility Act. The proposed rule is expected to reduce burdens. Therefore, PHMSA certifies the proposed rule does not have a significant impact on a substantial number of small entities.

¹¹ 67 FR 53461 (Aug. 16, 2002).

¹² DOT, “Rulemaking Requirements Related to Small Entities,” <https://www.transportation.gov/regulations/rulemaking-requirements-concerning-small-entities> (last accessed Sept 3, 2024).

G. Unfunded Mandates Reform Act of 1995

The Unfunded Mandates Reform Act (UMRA, 2 U.S.C. § 1501 et seq.) requires agencies to assess the effects of Federal regulatory actions on State, local, and Tribal governments, and the private sector. For any proposed or direct final rule that includes a Federal mandate that may result in the expenditure by state, local, and Tribal governments, in the aggregate of \$100 million or more (in 1996 dollars) in any given year, the agency must prepare, amongst other things, a written statement that qualitatively and quantitatively assesses the costs and benefits of the Federal mandate.

This proposed rule does not impose unfunded mandates under UMRA because it does not result in costs of \$100 million or more (in 1996 dollars) per year for either State, local, or Tribal governments, or to the private sector.

H. National Environmental Policy Act

The National Environmental Policy Act (NEPA, 42 U.S.C. § 4321 et. seq.) requires that Federal agencies assess and consider the impact of major Federal actions on the human and natural environment.

PHMSA analyzed this proposed rule in accordance with NEPA and has preliminarily determined that the rulemaking will not adversely affect safety and therefore will not significantly affect the quality of the human and natural environment. The public is invited to comment on the impact of the proposed action.

I. Executive Order 13175

PHMSA analyzed this proposed rule according to the principles and criteria in E.O. 13175 (“Consultation and Coordination with Indian Tribal Governments”)¹³ and DOT Order 5301.1A (“Department of Transportation Tribal Consultation Policies and Procedures”). E.O. 13175 requires agencies to assure meaningful and timely input from Tribal government

¹³ 65 FR 67249 (Nov. 9, 2000).

representatives in the development of rules that significantly or uniquely affect Tribal communities by imposing “substantial direct compliance costs” or “substantial direct effects” on such communities or the relationship or distribution of power between the Federal government and Tribes.

PHMSA assessed the impact of the proposed rule and determined that it will not significantly or uniquely affect Tribal communities or Indian Tribal governments. The rulemaking’s regulatory amendments have a broad, national scope; therefore, this proposed rule will not significantly or uniquely affect Tribal communities, much less impose substantial compliance costs on Native American Tribal governments or mandate Tribal action. For these reasons, PHMSA has concluded that the funding and consultation requirements of E.O. 13175 and DOT Order 5301.1A do not apply.

J. Paperwork Reduction Act

The Paperwork Reduction Act (44 U.S.C. § 3501 et seq.) and its implementing regulations at 5 CFR § 1320.8(d) requires that PHMSA provide interested members of the public and affected agencies with an opportunity to comment on information collection and recordkeeping requests. This rulemaking will not create, amend, or rescind any existing information collections. There is potential for a slight reduction in the number of shipping papers required under OMB Control Number 2137-0034, “Hazardous Materials Shipping Papers & Emergency Response Information,” due to aerosols being shipped as limited quantities. However, this reduction is expected to be minimal and difficult to quantify in relation to the overall shipping paper burden.

K. Executive Order 13609 and International Trade Analysis

E.O. 13609 (“Promoting International Regulatory Cooperation”)¹⁴ requires agencies consider whether the impacts associated with significant variations between domestic and

¹⁴ 77 FR 26413 (May 4, 2012).

international regulatory approaches are unnecessary or may impair the ability of American business to export and compete internationally. In meeting shared challenges involving health, safety, labor, security, environmental, and other issues, international regulatory cooperation can identify approaches that are at least as protective as those that are or would be adopted in the absence of such cooperation. International regulatory cooperation can also reduce, eliminate, or prevent unnecessary differences in regulatory requirements.

Similarly, the Trade Agreements Act of 1979 (Pub. L. 96-39), as amended by the Uruguay Round Agreements Act (Pub. L. 103-465), prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. For purposes of these requirements, Federal agencies may participate in the establishment of international standards, so long as the standards have a legitimate domestic objective, such as providing for safety, and do not operate to exclude imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards.

PHMSA engages with international standards setting bodies to protect the safety of the American public. PHMSA has assessed the effects of the proposed rule and has determined that its regulatory amendments will not cause unnecessary obstacles to foreign trade.

L. Cybersecurity and Executive Order 14028

E.O. 14028 (“Improving the Nation's Cybersecurity”)¹⁵ directed the Federal government to improve its efforts to identify, deter, and respond to “persistent and increasingly sophisticated malicious cyber campaigns.” PHMSA has considered the effects of the proposed rule and has determined that its regulatory amendments would not materially affect the cybersecurity risk profile for affected entities.

List of Subjects in 49 CFR Part 171

¹⁵ 86 FR 26633 (May 17, 2021).

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

In consideration of the foregoing, PHMSA proposes to amend 49 CFR chapter I as follows:

PART 171—GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS

1. The authority citation for part 171 continues to read as follows:

Authority: 49 U.S.C. 5101-5128, 44701; Pub. L. 101-410 section 4; Pub. L. 104-134, section 31001; Pub. L. 114-74 section 701 (28 U.S.C. 2461 note); 49 CFR 1.81 and 1.97.

2. In § 171.8, revise the definition of “Aerosol” to read as follows:

§ 171.8 Definitions.

* * * * *

Aerosol means an article consisting of a non-refillable receptacle containing a gas (compressed, liquefied, or dissolved under pressure), with or without a nonpoisonous (other than a Division 6.1 Packing Group III material) liquid, paste, or powder, and fitted with a self-closing release device allowing the contents to be ejected as a foam, paste, or powder or in a liquid state or in a gaseous state.

* * * * *

Issued in Washington, D.C., on June 26, 2025, under the authority delegated in 49 CFR § 1.97.

Benjamin D. Kochman,
Acting Administrator.