



DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 172, 173, 174, 179, and 180

[Docket No. PHMSA-2018-0025 (HM-264)]

RIN 2137-AF40

Hazardous Materials: Liquefied Natural Gas by Rail

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

ACTION: Notification of conforming amendments.

SUMMARY: PHMSA, in coordination with the Federal Railroad Administration, is amending the Hazardous Materials Regulations in response to the recent decision of the United States Court of Appeals for the District of Columbia Circuit in *Sierra Club, et al. v. DOT, et al.*, No. 20-1317 (Jan. 17, 2025).

DATES: These amendments are effective as of [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

FOR FURTHER INFORMATION CONTACT: Ryan Larson, Transportation Specialist, by phone at 202-366-8553 or email at ryan.larson@dot.gov, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue, S.E., Washington, DC 20590-0001.

SUPPLEMENTARY INFORMATION:

I. Background

On July 24, 2020, PHMSA, in consultation with the Federal Railroad Administration (FRA) issued a final rule to amend the Hazardous Materials Regulations (HMR) to authorize the transportation of LNG in a new DOT-113C120W9 tank car and adopted additional operational

controls for the safe movement of LNG by rail, effective as of August 24, 2020 (LNG by Rail Rule).¹ On August 18, 2020, several stakeholder groups filed petitions for judicial review of the LNG by Rail Rule. The petitioners challenged the legality of PHMSA’s action on various grounds, including for failing to comply with the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321 *et seq.* The United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) later consolidated each of the petitions into a single case captioned as *Sierra Club, et al. v. DOT, et al.* (Case No. 20-1317).²

On January 17, 2025, the D.C. Circuit issued a decision on the merits of the consolidated petitions.³ The D.C. Circuit held that PHMSA violated NEPA by failing to prepare an environmental impact statement during the rulemaking process. Accordingly, the D.C. Circuit vacated the LNG by Rail Rule in its entirety and remanded the matter to PHMSA for further proceedings.

II. Amendments

PHMSA is adopting conforming amendments to the HMR to address the D.C. Circuit’s decision in *Sierra Club, et al. v. DOT, et al.* (Case No. 20-1317) (Jan. 17, 2025). These conforming amendments are intended to restore the text of the HMR to the version that existed prior to the effective date of the LNG by Rail Rule. No other regulatory changes are being adopted. Accordingly, the text of the following sections will revert to the version in effect prior to August 24, 2020: 49 CFR §§ 172.101, 172.102, 172.820, 173.319, 179.400-5, and 179.400-8. The text of sections that did not exist prior to the LNG by Rail Rule, including §§ 174.200(d), 179.400-26, and 180.515(d), will be deleted in its entirety.

¹ PHMSA, *Hazardous Materials: Final Rule - Liquefied Natural Gas by Rail*, 85 FR 44994 (July 24, 2020) (the “July 2020 final rule”). The design of the DOT-113C120W9 tank car included enhanced safety features, such as a thicker, stronger outer tank.

² *Sierra Club, et al. v. U.S. Department of Transportation*, Case No. 20-1317 (D.C. Cir. filed Aug. 18, 2020) (consolidated with Nos. 20-1318, 20-1431, & 21-1009).

³ *Sierra Club, et al. v. DOT, et al.*, Case No. 20-1317, 125 F.4th 1170 (D.C. Cir. 2025).

These conforming amendments do not affect the provisions in the HMR that authorize the transportation of LNG by highway, vessel, or by rail in UN T75 portable tanks. Nor do the conforming amendments prohibit interested stakeholders from seeking a special permit to authorize the transportation of LNG in rail tank cars in appropriate cases, or from using DOT-113C120W9 specification rail tank cars to transport hazardous materials in circumstances where that is already permitted under the HMR. PHMSA remains committed to facilitating the safe, reliable, and efficient transportation of LNG by rail and to expanding the use of DOT-113C120W9 specification rail tank cars in transporting other hazardous materials.

PHMSA further notes that it recently issued an Advance Notice of Proposed Rulemaking (ANPRM), titled “*Hazardous Materials: Mandatory Regulatory Reviews to Unleash American Energy and Improve Government Efficiency*,” in a separate rulemaking docket.⁴ That ANPRM solicits stakeholder feedback on opportunities to repeal or amend any provisions in the HMR that place an undue burden on the identification, development, and use of domestic energy resources consistent with President Trump’s recent directive in E.O. 14154 (“Unleashing American Energy”⁵). The ANPRM also specifically requests information regarding potential industry demand to transport LNG and other cryogenic liquids by rail tank car. PHMSA encourages any stakeholders who are interested in advancing the transportation of LNG and other hazardous materials by rail to participate in that proceeding. PHMSA is aware of at least one tank car manufacturer that has produced tank cars built to the DOT-113C120W9 specification for use with non-LNG cryogenic materials. This notice of conforming amendments removes the DOT-113C120W9 specification from the HMR. PHMSA notes that stenciling of those and other tank cars must, pursuant to § 179.22(a), reflect current HMR tank car specifications.

90 FR 23656, (Jun. 4, 2025).

III. Regulatory Analyses and Notices

A. *Statutory/Legal Authority and Good Cause for Immediate Adoption Without Prior Notice and Comment*

Statutory authority for this final rule is provided by the Hazardous Materials Transportation Act (HMTA, 49 U.S.C. §§ 5101 *et seq.*). Section 5103(b) of the HMTA authorizes the Secretary of Transportation to “prescribe regulations for the safe transportation, including security, of hazardous materials in intrastate, interstate, and foreign commerce.” *Id.* The Secretary has delegated his rulemaking authority under the HMTA to the PHMSA Administrator at 49 CFR § 1.97(b).

PHMSA has good cause to issue this final rule without providing notice and comment pursuant to § 553(b)(B) of the Administrative Procedure Act (APA, 5 U.S.C. §§ 551 *et seq.*). The final rule contains conforming amendments required by the D.C. Circuit’s vacatur of the LNG by Rail Rule.⁶ Because this action is compelled by the D.C. Circuit decision, PHMSA finds that notice and opportunity for public comment are unnecessary under § 553(b)(B) of the APA.

PHMSA also finds good cause for making these conforming amendments immediately effective. Section 553(d)(3) of the APA provides that a rule should take effect not less than 30 days after publication in the Federal Register, except when a rule relieves a restriction or when good cause is found by the agency and published within the rule allowing for earlier effect.⁷ Good cause exists for the immediate effect of these conforming amendments because the provisions of the HMR being removed no longer have the force and effect of law, and operators and the public will benefit from accurate regulatory text reflecting the current regulatory environment.⁸ No additional time is necessary to conform operator behavior. PHMSA

⁶ *EME Homer City Generation, LP v. EPA*, 795 F.3d 118, 134-35 (D.C. Cir. 2015) (internal quotations omitted).

⁷ 5 U.S.C. § 553(d)(1) & (3).

⁸ *Omnipoint Corp. v. F.C.C.*, 78 F.3d 620, 630 (D.C. Cir. 1996); 5 U.S.C. 553(d)(3).

previously suspended the LNG by Rail Rule,⁹ and no operators have been transporting LNG by rail tank car pursuant to that final rule.

B. Executive Order 12866 and Regulatory Planning and Review

This notice has been evaluated in accordance with E.O. 12866 (“Regulatory Planning and Review”)¹⁰ and DOT Order 2100.6B (“Rulemaking and Guidance Procedures”) and is considered not significant. Therefore, this notice has not been reviewed by the Office of Management and Budget (OMB). In addition, this rule is not an E.O. 14192 regulatory action because this rule is not significant under E.O. 12866.¹¹ As the conforming amendments in the notice merely reflect the current state of the regulations following judicial review, PHMSA finds that the conforming amendments impose no incremental compliance costs, nor do they adversely impair safety.

C. Executive Order 13132

PHMSA has analyzed this notice in accordance with the principles and criteria contained in E.O. 13132 (“Federalism”) and finds there are no federalism implications from this final rule.¹²

D. Executive Order 13175

This document was analyzed in accordance with the principles and criteria contained 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”). Because none of the amendments in this notice have tribal implications or impose substantial direct compliance costs on Indian tribal governments, the funding and consultation requirements of E.O. 13175 do not apply.

⁹ PHMSA, *Hazardous Materials: Final Rule - Suspension of HMR Amendments Authorizing Transportation of Liquefied Natural Gas by Rail*, 88 FR 60356 (Sept. 1, 2023) (suspending LNG by Rail Rule until June 30, 2025).

¹⁰ 58 FR 51753 (Oct. 4, 1993).

¹¹ 90 FR 9065 (Feb. 6, 2025).

¹² 64 FR 43255 (Aug. 10, 1999).

¹³ 65 FR 67249 (Nov. 6, 2000).

E. Regulatory Flexibility Act and Executive Order 13272

The analytical requirements of the Regulatory Flexibility Act, as amended by the Small Business Regulatory Flexibility Fairness Act of 1996 (RFA, 5 U.S.C. §§ 601 *et seq.*), do not apply when the agency finds good cause under the APA to adopt a rule without prior notice and comment.¹⁴ Because PHMSA has “good cause” under the APA to forego comment on the amendments herein, no RFA analysis is required.

F. Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995 (Pub. L. 96-511, codified at 44 U.S.C. §§ 3501 *et seq.*), no individual is required to respond to an information collection unless it has been approved by OMB and displays a valid OMB control number. Pursuant to 44 U.S.C. § 3506(c)(2)(B) and 5 CFR § 1320.8(d), PHMSA must provide interested members of the public and affected agencies an opportunity to comment on information collection and recordkeeping requests.

PHMSA has analyzed this rulemaking in accordance with the Paperwork Reduction Act. As detailed in the LNG by Rail Rule, Section V.C., “Section 172.820,” PHMSA previously required any rail carrier transporting a tank car quantity of UN1972 (Methane, refrigerated liquid (*cryogenic liquid*) or Natural Gas, refrigerated liquid (*cryogenic liquid, with high methane content*)) to comply with additional safety and security planning requirements for transportation by rail. Following the publication of the LNG by Rail Rule, PHMSA published both a 60-day and 30-day notice and comment period to provide an opportunity for public comment on the estimated increased reporting burden. PHMSA did not receive comments on either notice, and the reporting requirement was subsequently approved by OMB.

However, following the judicial vacatur of the LNG by Rail Rule, the reporting requirements are no longer necessary. As a result, PHMSA will submit a withdrawal of the

¹⁴ See 15 U.S.C. 603–604. See also Small Business Administration, “A Guide for Government Agencies: How to Comply with the Regulatory Flexibility Act” 55 (2017).

information collection requirements to OMB under OMB Control Number 2137-0612,

“Hazardous Materials Security Plans,” to reflect the removal of this burden.

G. Unfunded Mandates Reform Act of 1995

PHMSA analyzed the amendments in this notice pursuant to the Unfunded Mandates Reform Act of 1995 (UMRA, 2 U.S.C. §§ 1501, *et seq.*) and determined that the amendments do not impose enforceable duties of \$100 million or more (or \$169 million adjusted for inflation) in any given year, on state, local, or tribal governments, or on the private sector. Because the amendments impose no new incremental compliance costs beyond those already assessed in the LNG by Rail Rule, PHMSA’s earlier UMRA analysis need not be changed.

H. National Environmental Policy Act

The National Environmental Policy Act of 1969 (NEPA, 42 U.S.C. §§ 4321, *et seq.*) requires Federal agencies to prepare a detailed statement on major Federal actions significantly affecting the quality of the human environment. PHMSA has determined that the amendments in this document simply reflect the LNG by Rail Rule as vacated by judicial review and do not require further NEPA analysis.

I. Privacy Act Statement

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

J. Executive Order 13609 and International Trade Analysis

Under Executive Order 13609 (“Promoting International Regulatory Cooperation”),¹⁵ agencies must consider whether the impacts associated with significant variations between

¹⁵ 77 FR 26413 (May 4, 2012).

domestic and 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. The conforming amendments to the LNG by Rail Rule in this notice are required by the D.C. Circuit's vacatur of the LNG by Rail Rule and do not impact international trade.

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

E.O. 13211 ("Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use")¹⁶ requires Federal agencies to prepare a Statement of Energy Effects for any "significant energy action." Under the executive order, a "significant energy action" is defined as any action by an agency (normally published in the Federal Register) that promulgates, or is expected to lead to the promulgation of, a final rule that (1)(i) is a significant regulatory action under Executive Order 12866 or any successor order and (ii) is likely to have a significant adverse effect on the supply, distribution, or use of energy (including a shortfall in supply, price increases, and increased use of foreign supplies); or (2) is designated by the Administrator of the Office of Information and Regulatory Affairs (OIRA) as a significant energy action. These conforming amendments to the LNG by Rail Rule set forth in this Notice are not a "significant energy action" under E.O. 13211, as they are not a significant regulatory action, and they are not likely to have a significant adverse effect on supply, distribution, or use of energy.

These conforming amendments are also not a significant regulatory action under E.O. 12866 and are therefore not likely to have a significant adverse effect on the supply, distribution,

¹⁶ 66 FR 28355 (May 18, 2001).

or use of energy for purposes of the requirements of E.O. 14154 (“Unleashing American Energy”)¹⁷ and E.O. 14156 (“Declaring a National Energy Emergency”).¹⁸ That said, PHMSA has issued, in a separate rulemaking docket, an Advance Notice of Proposed Rulemaking (ANPRM) titled “*Hazardous Materials: Mandatory Regulatory Reviews to Unleash American Energy and Improve Government Efficiency.*”¹⁹ That ANPRM solicits stakeholder feedback on opportunities to repeal or amend HMR provisions placing an undue burden on the identification, development, and use of domestic energy resources as contemplated by E.O. 14154. The ANPRM also specifically requests information regarding potential industry demand to transport LNG and other cryogenic liquids by rail tank car.

List of Subjects

49 FR Part 172

Education, Hazardous materials transportation, Hazardous waste, Incorporation by reference, Labeling, Packaging and containers, Reporting and recordkeeping requirements.

49 CFR Part 173

Hazardous materials transportation, Incorporation by reference, Packaging and containers, Radioactive materials, Reporting and recordkeeping Requirements, Uranium.

49 CFR Part 174

Hazardous materials transportation, Incorporation by reference, Radioactive materials, Railroad safety.

49 CFR Part 179

Hazardous materials transportation, Railroad safety, Reporting and recordkeeping requirements.

49 CFR Part 180

¹⁷ 90 FR 9065 (Feb. 6, 2025).

¹⁸ 90 FR 10583 (Feb. 25, 2025).

Hazardous materials transportation, Incorporation by reference, Motor carries, Motor vehicle safety, Packaging and containers, Railroad safety, Reporting and recordkeeping requirements.

In consideration of the foregoing, PHMSA amends 49 CFR chapter I as follows:

**PART 172—HAZARDOUS MATERIALS TABLE, SPECIAL PROVISIONS,
HAZARDOUS MATERIALS COMMUNICATIONS, EMERGENCY RESPONSE
INFORMATION, TRAINING REQUIREMENTS, AND SECURITY PLANS**

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

Authority: 49 U.S.C. 5101-5128, 44701; 49 CFR 1.81, 1.96 and 1.97.

2. In § 172.101, in the Hazardous Materials Table, revise the entry for “Methane, refrigerated liquid (*cryogenic liquid*) or Natural gas, refrigerated liquid (*cryogenic liquid, with high methane content*)” (UN1972) to read as follows:

§ 172.101 Purpose and use of the hazardous materials table.

* * * * *

§ 172.101 Hazardous Materials Table

Symbols	Hazardous materials descriptions and proper shipping names	Hazard class or Division	Identification Numbers	PG	Label Codes	Special provisions (§ 172.102)	(8)			(9)		(10)	
							Packaging (§ 173.***)			Quantity limitations (<i>see</i> §§ 173.27 and 175.75)		Vessel stowage	
							Exceptions	Non-bulk	Bulk	Passenger aircraft/rail	Cargo aircraft only	Location	Other
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8A)	(8B)	(8C)	(9A)	(9B)	(10A)	(10B)
* * * * *													
	Methane, refrigerated liquid (<i>cryogenic liquid</i>) or Natural gas, refrigerated liquid (<i>cryogenic liquid, with high methane content</i>)	2.1	UN1972		2.1	T75, TP5	None	None	318	Forbidden	Forbidden	D	40
* * * * *													

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§ 172.102 [Amended]

- 3. In § 172.102, in paragraph (c)(1), remove and reserve special provisions 439 and 440.
- 4. In § 172.820, revise paragraphs (a) and (b)(1) to read as follows:

§ 172.820 Additional planning requirements for transportation by rail.

(a) *General.* Each rail carrier transporting in commerce one or more of the following materials is subject to the additional safety and security planning requirements of this section:

- (1) More than 2,268 kg (5,000 lbs.) in a single carload of a Division 1.1, 1.2, or 1.3 explosive;
- (2) A quantity of a material poisonous by inhalation in a single bulk packaging;
- (3) A highway route-controlled quantity of a Class 7 (radioactive) material, as defined in § 173.403 of this subchapter; or
- (4) A high-hazard flammable train (HHFT) as defined in § 171.8 of this subchapter.

(b) * * *

(1) Commodity data must be collected by route, a line segment, or series of line segments as aggregated by the rail carrier. Within the rail carrier selected route, the commodity data must identify the geographic location of the route and the total number of shipments by UN identification number for the materials specified in paragraph (a) of this section.

* * * * *

PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

5. The authority citation for part 173 continues to read as follows:

Authority: 49 U.S.C. 5101-5128, 44701; 49 CFR 1.81, 1.96 and 1.97.

6. In § 173.319, revise paragraph (d)(2) to read as follows:

§ 173.319 Cryogenic liquids in tank cars.

* * * * *

(d) * * *

(2) *Ethylene, hydrogen (minimum 95 percent parahydrogen), and cryogenic liquids* must be loaded and shipped in accordance with the following table:

Table 1 to § 173.319(d)(2)—Pressure Control Valve Setting or Relief Valve Setting

Maximum start-to-discharge pressure (psig)	Maximum permitted filling density (percent by weight)			
	Ethylene	Ethylene	Ethylene	Hydrogen
17				6.60
45	52.8			
75		51.1	51.1	
Maximum pressure when offered for transportation	10 psig	20 psig	20 psig	
Design service temperature	Minus 260 °F	Minus 260 °F	Minus 155 °F	Minus 423 °F
Specification (<i>see</i> § 180.507(b)(3) of this subchapter)	113D60W, 113C60W	113C120W	113D120W	113A175W, 113A60W

Note: For DOT 113 cryogenic tank cars, delimiters indicate the following:

A—authorized for minus 423 °F loading;

C—authorized for minus 260 °F loading;

D—authorized for minus 155 °F loading.

* * * * *

PART 174—CARRIAGE BY RAIL

7. The authority citation for part 174 continues to read as follows:

Authority: 49 U.S.C. 5101-5128; 33 U.S.C. 1321; 49 CFR 1.81 and 1.97.

§ 174.200 [Amended]

8. In § 174.200, remove paragraph (d).

PART 179—SPECIFICATIONS FOR TANK CARS

9. The authority citation for part 179 continues to read as follows:

Authority: 49 U.S.C. 5101-5128; 49 CFR 1.81 and 1.97.

10. In § 179.400-5, revise paragraph (b) to read as follows:

§ 179.400-5 Materials.

* * * * *

(b) Any steel casting, steel forging, steel structural shape or carbon steel plate used to fabricate the outer jacket or heads must be as specified in AAR Specifications for Tank Cars, appendix M.

* * * * *

11. In § 179.400-8, revise paragraph (d) to read as follows:

§ 179.400-8 Thickness of plates.

* * * * *

(d)(1) The minimum wall thickness, after forming, of the outer jacket shell may not be less than 7/16 inch. The minimum wall thickness, after forming, of the outer jacket heads may not be less than 1/2 inch and they must be made from steel specified in § 179.16(c).

(2) [Reserved]

(3) The annular space is to be evacuated, and the cylindrical portion of the outer jacket between heads, or between stiffening rings if used, must be designed to withstand an external pressure of 37.5 psig (critical collapsing pressure), as determined by the following formula:

$$P_c = [2.6E(t/D)^{2.5}] / [(L/D) - 0.45(t/D)^{0.5}]$$

Where:

P_c = Critical collapsing pressure (37.5 psig minimum) in psig;

E = modulus of elasticity of jacket material, in psi;

t = minimum thickness of jacket material, after forming, in inches;

D = outside diameter of jacket, in inches;

L = distance between stiffening ring centers in inches. (The heads may be considered as stiffening rings located 1/3 of the head depth from the head tangent line.)

§ 179.400-26 [Removed]

12. Remove § 179.400-26.

**PART 180—CONTINUING QUALIFICATION AND MAINTENANCE OF
PACKAGINGS**

13. The authority citation for part 180 continues to read as follows:

Authority: 49 U.S.C. 5101-5128; 49 CFR 1.81 and 1.97.

§ 180.515 [Amended]

14. In § 180.515, remove paragraph (d).

Issued in Washington, DC on June 17, 2025, under authority delegated in 49 CFR § 1.97.

Benjamin D. Kochman,
Acting Administrator

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