



This document is scheduled to be published in the Federal Register on 10/30/2020 and available online at [federalregister.gov/d/2020-22483](https://www.federalregister.gov/d/2020-22483), and on [govinfo.gov](https://www.govinfo.gov)

Billing Code: 4910-60-P

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Part 180

[Docket No. PHMSA-2017-0083 (HM-219B)]

RIN 2137-AF30

Hazardous Materials: Response to an Industry Petition to Reduce Regulatory Burden for Cylinder Requalification Requirements

AGENCY: Pipeline and Hazardous Materials Safety Administration, Department of Transportation.

ACTION: Final rule.

SUMMARY: The Pipeline and Hazardous Materials Safety Administration (PHMSA) is amending the requirements of the requalification periods for certain Department of Transportation (DOT) 4-series specification cylinders in non-corrosive gas service in response to a petition for rulemaking submitted by the National Propane Gas Association (NPGA).

DATES: *Effective date:* This rule is effective [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

Voluntary compliance date: Voluntary compliance with all amendments is authorized [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER].

FOR FURTHER INFORMATION CONTACT: Lily Ballengee, Standards and Rulemaking Division, (202) 366-8553, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, 1200 New Jersey Avenue, S.E., Washington, D.C. 20590-0001.

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I. Overview

PHMSA is amending the Hazardous Materials Regulations (HMR; 49 CFR parts 171–180) for certain commonly used DOT 4-series specification cylinders in non-corrosive gas service. This final rule authorizes 12-year initial and subsequent requalification periods for volumetric expansion testing and a 12-year initial requalification period for proof pressure testing. This final rule does not modify the existing 10-year subsequent requalification periods for proof pressure testing. In

addition, it makes clarifying and conforming edits to the requalification table in § 180.209(a) and the text in paragraph (e). This final rule provides regulatory relief by reducing requalification-related costs for propane marketers, distributors, and others in non-corrosive gas service without reducing safety. PHMSA also withdraws its Statement of Enforcement Discretion issued on March 17, 2017, as of the effective date of this final rule.

II. Background

A. Summary of Historical Changes to the Regulatory Text

As further discussed throughout this section, the requalification periods for volumetric expansion and proof pressure testing — to include the first requalification after manufacture (“initial requalification”) and the recurring requalifications required after the initial requalification (“subsequent requalification(s)”) — have evolved through various regulatory actions. Table 1 summarizes the history of changes to the timelines for requalification by volumetric expansion and proof pressure testing that are the subject of this rulemaking. The requalification time periods memorialized in Table 1 as having been in place “Prior to HM-233F” date from 1964.¹

	Prior to HM-233F	HM-233F Final Rule	NPGA Petition (P-1696)	HM-219B NPRM	NPGA Comment to NPRM (i.e., NPGA Alternative)	HM-219B Final Rule
Initial Period for Volumetric Expansion and Proof Pressure Testing	12 years	10 years	12 years	12 years	12 years	12 years

¹ See Interstate Commerce Commission, Explosives and Other Dangerous Articles, 29 FR 18651 (Dec. 29, 1964) (introducing requalification period requirements at Note 2 to § 173.34(e)(9)).

<i>Volumetric Expansion Subsequent Requalification Periods</i>	12 years	10 years	12 years	12 years	12 years	12 years
<i>Proof Pressure Subsequent Requalification Periods</i>	7 years	10 years	7 years	10 years	12 years	10 years

B. HM-233F Notice of Proposed Rulemaking and Final Rule

On January 30, 2015, PHMSA published a notice of proposed rulemaking (NPRM) titled “Hazardous Materials: Adoption of Special Permits (MAP-21) (RRR)” [Docket No. PHMSA-2013-0042 (HM-233F); 80 FR 5339].² The HM-233F NPRM proposed to adopt provisions contained in a number of widely-used or longstanding special permits with an established safety record. Following a 60-day comment period, PHMSA published a final rule on January 21, 2016, that codified provisions from most of those special permits in the HMR [81 FR 3635].³ The HM-233F final rule became effective on February 22, 2016.

Prior to publication of the HM-233F final rule, § 180.209(e) authorized DOT 4-series cylinders used exclusively for non-corrosive, gaseous hazardous materials to be requalified by volumetric expansion every 12 years. Alternatively, these cylinders were authorized to be requalified by the proof pressure test method after a 12-year initial requalification period and then every 7 years thereafter for subsequent requalification. The HM-233F final rule amended § 180.209(e) to revise both requalification periods to

² Hazardous Materials: Adoption of Special Permits NPRM (MAP-21) (RRR), 80 FR 5339 (Jan. 30, 2015) (docket no. PHMSA-2013-0042-0001, available at: <https://www.regulations.gov/document?D=PHMSA-2013-0042-0001>).

³ Hazardous Materials: Adoption of Special Permits Final Rule (MAP-21) (RRR), 81 FR 3636 (Jan. 21, 2016) (docket no. PHMSA-2013-0042-0030, available at: <https://www.regulations.gov/document?D=PHMSA-2013-0042-0030>).

10 years for DOT 4B, 4BW, 4BA, or 4E specification cylinders used exclusively for non-corrosive, gaseous hazardous materials.

A volumetric expansion test ensures that a cylinder is free of leaks and determines the total expansion (i.e., the total increase in a cylinder's volume due to application of the test pressure) and permanent expansion (i.e., the permanent increase in a cylinder's volume after the test pressure is released) of a cylinder at a given pressure. The volumetric expansion test is conducted by either the water jacket or direct expansion methods. The water jacket method measures the difference between the volume of water a cylinder externally displaces at test pressure and the volume of water a cylinder externally displaces at ambient pressure; in contrast, the direct expansion method measures the amount of water forced into a cylinder at test pressure, adjusted for the compressibility of water, as a means of determining the expansion of cylinder volume. See § 180.203. A proof pressure test is conducted by interior pressurization without the determination of a cylinder's expansion. While a proof pressure test may also detect leaks, its intended purpose is to verify whether a cylinder can withstand pressure above its intended operating pressure without permanent damage. Both volumetric expansion and proof pressure tests can be used to meet the requalification requirements in § 180.209(e); however, they are not equivalent testing measures and each provide certain advantages. Notably, the volumetric expansion test has the comparative benefit of determining the cylinder's total expansion and the amount of permanent damage to the cylinder. The proof pressure test, meanwhile, is less difficult to perform.

Among the special permits that PHMSA proposed to incorporate into the HMR in the HM-233F NPRM were the provisions of DOT Special Permit (DOT-SP) 12084

issued to Honeywell International Inc.⁴ DOT-SP 12084 had authorized the requalification via proof pressure testing of DOT 4B, 4BA, or 4BW cylinders for 11 additional non-corrosive gases not listed in the version of § 180.209(e) that was in effect at that time. The HM-233F NPRM proposed to revise § 180.209(e) by replacing the list of specific hazardous materials within that provision with broader language extending § 180.209(e) to any non-corrosive gases commercially free from corroding components.⁵

In the HM-233F NPRM, PHMSA also proposed to amend the requalification periods for both the volumetric expansion and proof pressure tests in § 180.209(e). Specifically, PHMSA proposed to standardize initial and subsequent requalification periods to 10 years for both the volumetric expansion test (previously 12 years for both initial and subsequent requalification) and the proof pressure test (previously 7 years for subsequent requalification after an initial 12-year requalification period). This change was not prompted by any safety concerns pertaining to the then-controlling initial and subsequent requalification periods. Rather, PHMSA sought to align the requalification periods in § 180.209(e) with the internationally-recognized and validated 10-year (initial and subsequent) requalification periods for United Nations (UN) pressure receptacles, which PHMSA had previously determined were safe enough to merit incorporation into

⁴See DOT-SP 12084, available at: <https://www.phmsa.dot.gov/approvals-and-permits/hazmat/file-serve/offer/SP12084.pdf/offerserver/SP12084>.

⁵ As defined in § 180.203, “commercially free of corrosive components” means a hazardous material having a dew point at or below minus 46.7 °C (minus 52 °F) at 101kPa (1 atmosphere) and free of components that will adversely react with the cylinder (e.g., chemical stress corrosion).

the HMR at § 180.207(c).⁶ Due to an administrative oversight, those proposed changes to § 180.209(e) were not discussed in the preamble of the HM-233F NPRM.

PHMSA received no adverse comments to any of the proposed changes to § 180.209(e) and therefore adopted the revisions as proposed in the final rule. While the effective date of the final rule was February 22, 2016, PHMSA allowed for delayed compliance with the revised § 180.209(e) to begin on January 23, 2017.

C. Petition P-1696

On January 13, 2017, NPGA submitted a petition to PHMSA, titled “Petition for Rulemaking and Emergency Stay Cylinder Requalification Requirements” [PHMSA-2017-0019 (P-1696)].⁷ NPGA requested that PHMSA amend § 180.209(e) to restore the initial and subsequent requalification periods for both volumetric expansion and proof pressure testing in § 180.209(e) to those authorized prior to the HM-233F final rule, as well as make conforming changes to the table in § 180.209(a). NPGA also requested that PHMSA issue an emergency stay of enforcement of HM-233F’s amendments to § 180.209(e) while PHMSA was considering its petition.

In the petition, NPGA advised PHMSA that the HM-233F rulemaking created regulatory confusion and imposed substantial compliance costs. Specifically, NPGA asserted that the regulatory changes to the requalification periods for volumetric expansion testing (initial and subsequent requalifications) and proof pressure testing

⁶ See 71 FR 33858, at 33869-70 (June 12, 2006). Section 180.207(d) makes the 10-year initial and subsequent requalification periods available for both volumetric expansion and proof pressure testing methods.

⁷ NPGA Petition for Rulemaking & Emergency Stay Cylinder Requalification Requirements, available at: <https://www.regulations.gov/document?D=PHMSA-2017-0083-0002>.

(initial requalification) created confusion in the propane industry. NPGA stated that it was unclear whether cylinders manufactured or requalified within the last 10 to 12 years had to be requalified immediately, since prior to the HM-233F final rule their requalification would not have been required until 12 years from the date of manufacture (volumetric expansion and proof pressure testing) or their last requalification (volumetric expansion testing). Furthermore, NPGA stated that the more frequent subsequent requalification by volumetric expansion testing (i.e., every 10 years instead of every 12 years) required by the HM-233F final rule would increase requalification testing costs. NPGA further explained that because current industry practice⁸ is to mark newly manufactured cylinders eligible for requalification in accordance with § 180.209(e) with a 12-year requalification mark, industry would have to train employees to ignore such markings. NPGA also contended that costs associated with training on the revised requalification periods for volumetric expansion and proof pressure testing would not be accompanied by a corresponding safety benefit.

On March 2, 2017, PHMSA met with NPGA representatives to: (1) better understand NPGA's concerns; (2) identify existing industry practice and request data to assess the impact of the revised cylinder requalification periods; and (3) evaluate the merits of undertaking a rulemaking and issuing an emergency stay of enforcement as recommended by NPGA. NPGA reiterated its position that the change in requalification intervals would impose unanticipated industry costs. Furthermore, NPGA conveyed that a majority of its associate members requalify certain DOT 4-series specification cylinders by volumetric expansion testing.

⁸ NPGA acknowledges this industry practice is voluntary and not required by the HMR.

Pursuant to § 106.105, PHMSA accepted NPGA's petition⁹ on March 7, 2017, and initiated this rulemaking.

D. Statement of Enforcement Discretion

On March 17, 2017, PHMSA issued a Statement of Enforcement Discretion while it reviewed NPGA's petition for rulemaking.¹⁰ This Statement of Enforcement Discretion specified that DOT 4-series specification cylinders requalified by volumetric expansion in accordance with § 180.209(e) may have a 10- or 12-year requalification period without any enforcement action taken. The Statement of Enforcement Discretion is withdrawn upon the effective date of this final rule.

E. HM-219B Notice of Proposed Rulemaking; Executive Order 13924

On August 6, 2019, PHMSA published an NPRM [Docket No. PHMSA-2017-0083-0004 (HM-219B); 84 FR 38180]¹¹ proposing changes to the requalification periods in § 180.209(e) and clarifying edits to the table in paragraph (a). Specifically, the HM-219B NPRM proposed to return the initial and subsequent requalification periods for volumetric expansion tests to 12 years, and to return the initial requalification period for proof pressure testing to 12 years. In addition, PHMSA proposed to revise the title of § 180.209(e) to reflect the content of that paragraph better. PHMSA also proposed to

⁹ DOT P-1696 Acceptance Letter, available at: <https://www.regulations.gov/document?D=PHMSA-2017-0019-0004>.

¹⁰ Notice Regarding the Requalification Period for Department of Transportation (DOT) Specification Cylinders, available at: <https://www.regulations.gov/document?D=PHMSA-2017-0083-0001>.

¹¹ Hazardous Materials: Response to an Industry Petition to Reduce Regulatory Burden for Cylinder Requalification Requirements NPRM, 84 FR 38180 (Aug. 6, 2019), available at: <https://www.regulations.gov/document?D=PHMSA-2017-0083-0004>.

amend the table in § 180.209(a) to reflect the baseline requalification period and the alternate requalification period allowances for certain DOT specification cylinders consistent with the amendments to § 180.209(e); to remove any reference to paragraph (e) for DOT 3A, 3AA, 3AL, 3AX, 3AAX, 3B, 3BN, and 4AA480 cylinders, which are not authorized for requalification by the proof pressure method in § 180.209(e); to add a “7” for DOT 4B, 4BA, or 4BW cylinders, which are authorized for requalification every 7 or 12 years, instead of 5 years, when used as a fire extinguisher in accordance with § 180.209(j)¹²; and to make additional editorial corrections for consistency.

The NPRM mirrored NPGA’s proposed amendments except that it retained the HM-233F final rule’s 10-year period for subsequent proof pressure requalification testing. In the HM-219B NPRM, PHMSA explained that the extended period for subsequent requalification by proof pressure test (10 years versus 7 years) may provide savings that outweigh the costs of compliance training on the HM-233F final rule and requested comment on the potential costs or savings that may result.

The comment period closed on October 7, 2019. PHMSA received comments in response to the HM-219B NPRM from Gentry Investigation Service, LLC (GIS) and NPGA. PHMSA also received comments from The Chemours Company (Chemours) on October 23, 2019. Consistent with §§ 5.13(i)(5) and 106.70(b), PHMSA considered Chemours’s late-filed comments given its interest in the rulemaking and the absence of additional expense or delay resulting from consideration of its comments.

¹² As proposed in the NPRM, this is a conforming amendment for consistency between the table in paragraph (a) and the provisions in paragraph (j), which was inadvertently deleted in the HM-233F final rule.

Following the closing of the comment period, Executive Order 13924, “Regulatory Relief to Support Economic Recovery” (85 FR 31353, May 22, 2020) directed Federal agencies to respond to the economic harm caused by the novel coronavirus by reviewing their regulations to identify regulatory requirements for potential rescission or modification to reduce regulatory burdens and thereby promote economic growth. Executive Order 13924 at section 4. PHMSA understands the cost savings expected from the HMR amendments adopted in this final rule to be consistent with Executive Order 13924’s mandate.

III. NPRM Comment Discussion

A. Comments Related to the Requalification Periods

In its comment to the NPRM, NPGA requested that PHMSA modify § 180.209(e) to permit a universal 12-year period for both initial and subsequent requalification by either volumetric expansion or proof pressure testing. This is a departure from NPGA’s initial recommendation in P-1696 to revert to the historical 7-year subsequent requalification periods for proof pressure testing. Chemours and GIS, meanwhile, expressed their support for the initial and subsequent requalification periods for volumetric expansion and proof pressure testing provided in the HM-219B NPRM. In this final rule, PHMSA is adopting the changes to the requalification periods for volumetric expansion (initial and subsequent requalification) and proof pressure testing (initial requalification) proposed in the HM-219B NPRM.

B. Initial Requalification Periods; Subsequent Requalification Periods via Volumetric Expansion Testing

PHMSA received no comments opposing the NPRM's proposal to amend § 180.209(e) to restore a 12-year initial requalification testing period by both volumetric expansion and proof pressure testing, and 12-year subsequent requalification periods by volumetric expansion testing.

DOT 4-series cylinders — which are commonly used and include everything from small propane cylinders typically used in home grilling applications to larger cylinders used in the construction industry — have been in service as authorized packaging types for decades. Despite millions of these cylinders having entered into service and having been requalified as provided by the HMR before the HM-233F final rule, there have been few reported incidents, and PHMSA is unaware of any systematic safety concerns. The historically safe use of these cylinders demonstrates that restoration of the previously-authorized 12-year requalification periods proposed by the NPRM will not have an adverse effect on safety.

PHMSA further notes that reversion to the historical 12-year subsequent requalification period for volumetric expansion testing as proposed in the NPRM would likely not impose substantial regulatory costs. Even though the HM-233F final rule provided that its 10-year subsequent requalification period for volumetric expansion testing would become mandatory in January 2017, the Statement of Enforcement Discretion issued in March 2017 gave regulated entities a reprieve from that more frequent subsequent requalification testing requirement until the conclusion of this rulemaking. The NPRM subsequently signaled PHMSA's intent to revert to the

historical 12-year subsequent requalification period for volumetric expansion testing. PHMSA therefore expects that few regulated entities have adjusted their compliance programs and training in conformity with this element of the HM-233F final rule such that they would incur additional costs from reverting to the historical 12-year subsequent requalification for volumetric expansion as proposed in the NPRM.

C. Subsequent Requalification via Proof Pressure Testing

Prior to the HM-233F final rule, the provision for a 7-year subsequent requalification period by proof pressure testing had remained unchanged since 1964. In the HM-219B NPRM, PHMSA invited comments on the potential costs or savings that may result from maintaining 10-year subsequent requalification periods via proof pressure testing established by the HM-233F final rule, instead of returning to the historical 7-year subsequent requalification period by proof pressure testing as proposed by NPGA in its petition. Chemours and GIS expressed support for retaining the 10-year subsequent requalification periods for proof pressure testing contemplated by the NPRM. NPGA in its comments submitted in response to the NPRM agreed with the other commenters that PHMSA should not revert to the original 7-year subsequent requalification period by proof pressure testing as it had originally urged in its petition for rulemaking — and now called for extension of subsequent requalification periods for proof pressure testing to 12 years. NPGA contended that its newly-iterated preference would further reduce regulatory burdens without adversely impacting safety.

In the HM-233F final rule, PHMSA sought to align the subsequent requalification period for proof pressure testing in § 180.209(e) with the 10-year subsequent proof

pressure test requalification period for UN-specification cylinders included in the HMR at § 180.207(c). While PHMSA expected that a longer subsequent requalification period would promote consistency within the HMR and thereby enhance compliance while reducing regulatory burdens, NPGA's petition for rulemaking argued that this and other changes adopted in the HM-233F final rule would in fact entail substantial costs to update compliance programs and train personnel.

PHMSA notes the 10-year period for subsequent proof pressure testing has been codified within the HMR since the HM-233F final rule became effective in February 2016, and regulated entities must have been in compliance since January 2017.¹³ Any compliance program adjustments and additional training required to account for the change from a 7-year to 10-year subsequent requalification period for proof pressure testing have likely already been implemented. Further, regulated entities remain free to continue subsequent requalification of cylinders via proof pressure testing more frequently — every 7 years instead of every 10 years — than as required by § 180.209(e). On the other hand, if PHMSA were now to revert to the historical 7-year subsequent requalification period requirement for proof pressure testing as NPGA's petition for rulemaking had recommended, the result would be additional compliance program and training costs for those entities that had adjusted their compliance and training programs in conformity with the changes introduced by the HM-233F final rule. Given the absence from the administrative record of any safety benefits that could be evaluated against the regulatory costs associated with reverting to the historical 7-year subsequent

¹³ The March 17, 2017, Statement of Enforcement discretion pertained only to subsequent requalification by volumetric expansion testing, not proof pressure testing.

requalification period for proof pressure testing, PHMSA has decided against so amending § 180.209(e).

Similarly, PHMSA finds that the administrative record does not justify 12-year subsequent requalification periods for proof pressure testing. Although NPGA contends that its recently-iterated proposal would yield cost savings, the administrative record contains little evidence that extending the subsequent requalification periods for proof pressure-tested cylinders to 12 years would provide an equivalent level of safety to the 10-year subsequent requalification periods introduced into § 180.209(e) by the HM-233F final rule. Unlike the initial requalification and subsequent requalification via volumetric expansion, PHMSA cannot draw on the historical experience under HMR language predating the HM-233F final rule to evaluate the safety impacts of a 12-year subsequent requalification period via proof pressure testing.

Furthermore, PHMSA notes that while both volumetric expansion and proof pressure tests can be used to meet the requirements in § 180.209(e), they are not equivalent testing measures as suggested by NPGA. Volumetric expansion testing is a more rigorous testing method than proof pressure testing in that it verifies not only the pressure integrity of a cylinder (as proof pressure testing does), but also the absence of permanent expansion to a cylinder — which may be an indication of extensive wall thinning or other types of damage. This fundamental difference between the two test methods was the basis for their different subsequent requalification periods in the HMR for nearly five decades, and NPGA has not provided data demonstrating that proof pressure testing is sufficient to verify the integrity of a cylinder over successive 12-year subsequent requalification periods. Further, because the potential for compromise of

cylinder integrity would increase over time, PHMSA is unconvinced by NPGA's assertion that PHMSA should necessarily have the same confidence in the safety of successive 12-year subsequent requalification periods by proof pressure testing as it does for an initial 12-year requalification period as proposed in the NPRM.

Therefore, in consideration of the lack of record evidence presented by NPGA to demonstrate the safety of its revised recommendation regarding subsequent requalification periods for proof pressure testing, and the support of other commenters for the current 10-year subsequent requalification period by proof pressure testing, PHMSA declines to amend this element of § 180.209(e) as requested by NPGA in its comments on the NPRM.

D. Comments Related to the Requalifier Identification Number

GIS requested that PHMSA either modify §§ 180.209(g) and 180.215(a)(1)–(2) to include a reference to a Visual Only Requalifier Identification Number (VIN) as an acceptable test method for requalifying cylinders, or add a new definition in § 171.8 for “Requalifier Identification Number (RIN)” to clarify the different types of RINs issued by the DOT. GIS also recommended modifying § 180.213(d) to include a second example to demonstrate the proper marking method for a VIN and updating the existing DOT publication “Is Your Propane Cylinder Safe?” upon completion of the final rule. NPGA expressed support for GIS's proposed HMR modifications and updates to relevant PHMSA guidance documents. Chemours did not comment on GIS's proposals.

PHMSA notes that the revisions GIS recommended were not discussed in the NPRM. Section 180.203 of the HMR defines a “Requalification identification number or

RIN” as a code assigned by the DOT to identify a cylinder requalification, repair, or rebuilding facility. The Associate Administrator of Hazmat Safety issues a RIN as evidence that an applicant is authorized to requalify DOT specification or special permit cylinders, or TC, CTC, CRC, or BTC specification cylinders or tubes, or UN pressure receptacles based on certain evaluation requirements. See § 107.805(d). A VIN is a subset of a RIN, but more specifically, the VIN pertains only to cylinders that may be requalified visually in accordance with § 180.209(g). PHMSA agrees that this section would benefit from additional clarity but is concerned that GIS’s proposed changes to §§ 180.209(g) and 180.215(a)(1)–(2) may cause unnecessary confusion to stakeholders who hold an existing RIN without sufficient notice. As such, PHMSA is not adopting GIS’s recommended revisions to the HMR at this time as we would like to allow for further stakeholder engagement and opportunity to comment on any proposed changes before making this determination. PHMSA may consider these changes for inclusion in a future rulemaking.

Finally, PHMSA agrees with GIS’s observation that the existing DOT publication “Is Your Propane Cylinder Safe?” will need to be updated to conform to the HMR amendments introduced in this final rule.

E. Miscellaneous Comments

GIS expressed its belief that the regulatory changes proposed in the NPRM are inconsistent with the objective of the Regulatory Cooperation Council (RCC) of more closely aligning Canadian and U.S. regulations governing the transportation of hazardous materials. NPGA expressed disagreement with GIS’s comment as it does not believe the

HMR amendments proposed in the NPRM deviate from the objectives of the RCC, as PHMSA and Transport Canada remain free to continue working to align better their respective regulatory standards. PHMSA agrees with NPGA's comments on this issue and will continue to work with Transport Canada to ensure international regulatory cooperation and reduce, eliminate, and prevent unnecessary differences in regulatory requirements.

GIS provided background information about industry practice and representation included in NPGA's petition. GIS explained that only one domestic manufacturer was marking the collar of the cylinder with a requalification requirement and that this manufacturer stopped after publication of the HM-233F final rule, whereas NPGA's petition presented this practice as widespread. In addition, GIS disagreed with NPGA's statement that most DOT 4-series specification cylinders are requalified by volumetric expansion testing. GIS contends that while large liquefied petroleum gas (LPG) cylinders may be requalified by volumetric expansion or proof pressure testing, it believes most of the LPG industry prefer a visual-only inspection. PHMSA revised the training cost savings in the Final Regulatory Impact Analysis (RIA) after taking into consideration the clarifying information submitted by GIS.

IV. Changes Being Adopted

After reviewing the comments received and taking into consideration the scope of the rulemaking as outlined, PHMSA is adopting the amendments as proposed in the NPRM. This final rule revises the requalification periods in § 180.209(e) for DOT 4-series specification cylinders in non-corrosive gas service to allow for a 12-year

initial requalification by volumetric expansion testing or proof pressure testing, and 12-year subsequent requalification periods by volumetric expansion testing. It does not disturb existing HMR provisions providing for 10-year subsequent requalification periods for proof pressure testing. In addition, it makes clarifying and conforming editorial changes to the requalification table in § 180.209(a), as well as the title of § 180.209(e) to reflect the content of that paragraph.

V. Regulatory Analyses and Notices

A. Statutory/Legal Authority for This Rulemaking

This final rule is published under the authority of the Federal Hazardous Materials Transportation Law (Federal hazmat law; 49 U.S.C. 5101 et seq.), which authorizes the Secretary of Transportation to “prescribe regulations for the safe transportation, including security, of hazardous materials in intrastate, interstate, and foreign commerce.” The Secretary’s authority is delegated to PHMSA at 49 CFR 1.97. This final rule proposes to amend the requalification periods for certain DOT 4-series specification cylinders under relief provided in § 180.209(e) and to revise the requalification table in § 180.209(a) accordingly.

B. Executive Order 12866 and DOT Regulatory Policies and Procedures

This final rule is considered a nonsignificant regulatory action under section 3(f) of Executive Order 12866 (“Regulatory Planning and Review”)¹⁴ and therefore was not

¹⁴ 58 FR 51735 (Oct. 4, 1993).

reviewed by the Office of Management and Budget (OMB). This final rule is also considered a nonsignificant rulemaking under the DOT rulemaking procedures at 49 CFR part 5.

Executive Order 12866 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.” Additionally, Executive Order 12866 requires agencies to provide a meaningful opportunity for public participation, which also reinforces requirements for notice and comment under the Administrative Procedure Act (5 U.S.C. 553 et seq.). Similarly, DOT regulations at § 5.5(f)–(g) require that regulations issued by PHMSA and other DOT Operating Administrations “should be designed to minimize burdens and reduce barriers to market entry whenever possible, consistent with the effective promotion of safety” and should generally “not be issued unless their benefits are expected to exceed their costs.”

PHMSA’s preliminary analysis found that the proposed changes would result in total net cost savings of approximately \$142.4 million over 10 years, or \$20.3 million annualized, when discounted at 7 percent. PHMSA made a minor revision to exclude training-related cost savings that do not appear warranted after public comment and clarification presented by GIS. With the revision, PHMSA finds total net cost savings of approximately \$140.5 million over 10 years, discounted at 7 percent, or \$20.0 million annualized at 7 percent. Please see the rulemaking docket for the Final RIA for additional details.

C. Executive Order 13771

This final rule is expected to be a deregulatory action under Executive Order 13771 (“Reducing Regulation and Controlling Regulatory Costs”).¹⁵ Details on the estimated cost savings of this proposed rule can be found in the Final RIA included in the rulemaking docket.

D. Executive Order 13132

This final rule was analyzed in accordance with the principles and criteria contained in Executive Order 13132 (“Federalism”)¹⁶ and the President’s memorandum (“Preemption”) that was published in the *Federal Register* on May 22, 2009 [74 FR 24693]. Executive Order 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.” This rulemaking will preempt State, local, and Tribal requirements but does not propose 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. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

¹⁵ 82 FR 9339 (Feb. 24, 2017).

¹⁶ 64 FR 43255 (Aug. 10, 1999).

Federal hazmat law contains an express preemption provision at 49 U.S.C. 5125(b) that preempts State, local, and Indian Tribal requirements that are not substantively the same as Federal requirements on certain subjects, including the packing, handling, labeling, marking, and placarding of hazardous materials. Because this rulemaking addresses the design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material, it preempts State, local, and Indian Tribe requirements that are not substantively the same as the Federal requirements introduced in this rulemaking. This rulemaking is necessary to provide cost savings and regulatory flexibility to the propane industry.

E. Executive Order 13175

This final rule was analyzed in accordance with the principles and criteria contained in Executive Order 13175 (“Consultation and Coordination with Indian Tribal Governments”)¹⁷ and DOT Order 5301.1 “Department of Transportation Policies, Programs, and Procedures Affecting American Indians, Alaska Natives, and Tribes.” Executive Order 13175 and DOT Order 5301.1 require DOT Operating Administrations to assure meaningful and timely input from Indian Tribal government 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 and distribution of power between the Federal Government and Indian Tribes. This final rule neither imposes direct compliance costs

¹⁷ 65 FR 67249 (Nov. 9, 2000).

on Tribal communities, nor has a substantial direct effect on those communities.

Therefore, the funding and consultation requirements of Executive Order 13175 and DOT Order 5301.1 do not apply.

F. Regulatory Flexibility Act, Executive Order 13272, and DOT Policies and Procedures

The Regulatory Flexibility Act (5 U.S.C. 601 et seq.) requires agencies to review regulations to assess their impact on small entities unless the agency determines that a rulemaking is not expected to have significant impact on a substantial number of small entities. This final rule has been developed in accordance with Executive Order 13272 (“Proper Consideration of Small Entities in Agency Rulemaking”)¹⁸ and DOT’s procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts on small entities are considered properly. This final rule does not have a significant impact on a substantial number of small entities.

This rule provides cost savings and regulatory flexibility to the affected entities, as discussed above and in the Final RIA uploaded to the rulemaking docket. Specifically, the changes provide relief to cylinder manufacturers and marketers of the propane industry, including small entities, by easing requalification requirements with no anticipated reduction in safety. To the extent that new training is required for cylinder marketers to understand the 10-year timeframe applicable to cylinders subsequently

¹⁸ 68 FR 7990 (Feb. 19, 2003).

requaified by proof pressure testing, these costs were estimated in the NPRM to represent just 1 percent of the estimated cost savings afforded to the same entities.¹⁹

Further, if a small entity wished to forego these training costs, they could. This is because the applicable timeframe for subsequent requalification by proof pressure testing prior to HM-233F and this rule was 7 years. If they so choose, they could still comply with the HMR by requalifying a cylinder in need of subsequent requalification by proof pressure testing earlier than required (i.e., within 7 years instead of 10).

Consideration of alternative proposals for small businesses. The Regulatory Flexibility Act directs agencies to establish exceptions and differing compliance standards for small businesses, where it is possible to do so and still meet the objectives of applicable regulatory statutes.

PHMSA certifies that this final rule does not have a significant economic impact on a substantial number of small entities. The changes are generally intended to provide regulatory flexibility and cost savings to industry members.

G. Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.) no person is required to respond to any information collection unless it has been approved by OMB and displays a valid OMB control number. Section 1320.8(d) of 5 CFR requires that PHMSA provide interested members of the public and affected agencies an opportunity to comment on information and recordkeeping requests.

¹⁹ See Exhibit 8-1—Total Net Cost Savings, in the NPRM. We divide estimated costs of \$1.7 million dollars by \$163.6 million in estimated cost savings (undiscounted figures).

PHMSA currently accounts for burdens associated with the requalification of DOT specification cylinders, including DOT 4-series specification cylinders, in OMB Control No. 2137-0022 titled, “Testing, Inspection and Marking Requirements for Cylinders.” This OMB Control Number includes burdens associated with the requalification markings, reporting, and recordkeeping requirements of DOT specification cylinders. While this final rule addresses the requalification of certain DOT 4-series specification cylinders addressed in this OMB Control Number, PHMSA believes that the overall effect on the number of respondents and burden hours are negligible in relation to the number of respondents and burden hours associated with this OMB Control Number. In the NPRM, PHMSA solicited comment on the information collection burdens associated with the revision to requalification of certain DOT 4-series specification cylinders and received no such comments.

H. Regulation Identifier Number

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

I. Unfunded Mandates Reform Act

This final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1501 et seq.). It does not result in costs of \$100 million or

more, adjusted for inflation or more in any year to either State, local, or Tribal governments, in the aggregate, or to the private sector and is the least burdensome alternative that achieves the objective of the rulemaking.

J. Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA; 42 U.S.C. 4321 et seq.) requires Federal agencies to consider the consequences of major Federal actions and prepare a detailed statement on actions significantly affecting the quality of the human environment. The Council on Environmental Quality implementing regulations (40 CFR part 1500) require Federal agencies to conduct an environmental review considering (1) the need for the action; (2) alternatives to the action; (3) probable environmental impacts of the action and alternatives; and (4) comments by agencies and persons consulted during the consideration process. DOT Order 5610.1C “Procedures for Considering Environmental Impacts,” establishes departmental procedures for the evaluation of environmental impacts under NEPA and its implementing regulations.

1. Need for the Action

In response to a petition for rulemaking submitted by the regulated community, PHMSA is amending the HMR to update the requalification period for certain DOT 4-series specification cylinders in non-corrosive gas service. This action is intended to provide regulatory relief to members of the propane industry, including small entities, by easing requirements with no anticipated reduction in safety.

2. Alternatives Considered

In developing the final rule, PHMSA considered the following alternatives:

Alternative 1: No Action Alternative

If PHMSA were to select the No Action Alternative, it would not proceed with any rulemaking on this subject and the current regulatory standards would remain in effect. This alternative would not address NPGA's petition for rulemaking. As such, § 180.209(e) would not be amended, and the initial and subsequent requalification periods for volumetric expansion and proof pressure testing would remain at a 10-year period. The initial and subsequent requalification periods for the volumetric expansion test would not be extended to 12 years, and the requalification periods for the proof pressure test would not be extended to an initial 12-year period followed by 10-year subsequent requalification periods. Additionally, the Statement of Enforcement Discretion that PHMSA issued on March 17, 2017, would be withdrawn such that the regulated entities would be required to comply with the 10-year standardized periods for initial and subsequent requalification via volumetric expansion or proof pressure testing established by the HM-233F final rule.

Alternative 2: Preferred Alternative

The preferred alternative would revise the requalification periods in § 180.209(e) for DOT 4-series specification cylinders to allow for a 12-year period for initial and subsequent volumetric expansion testing and an initial 12-year period followed by a

10-year requalification period for proof pressure testing. In addition, the Statement of Enforcement Discretion that PHMSA issued on March 17, 2017, would be withdrawn.

Alternative 3: NPGA Alternative

Due to public comment from NPGA, PHMSA considered an alternative in addition to the No Action and Preferred Alternative. This alternative would address NPGA's comment to the NPRM by standardizing 12-year initial and subsequent requalification periods for the volumetric expansion and proof pressure tests for DOT 4-series specification cylinders. In addition, the Statement of Enforcement Discretion that PHMSA issued on March 17, 2017, would be withdrawn.

3. Environmental Impacts

Alternative 1: No Action Alternative

If PHMSA were to select the No Action Alternative, current regulations would remain in place and no new provisions would be added. This alternative would not address NPGA's petition for rulemaking. The current regulatory requirements, with shorter requalification intervals for both volumetric expansion and proof pressure testing, are more conservative and, assuming full compliance, may provide more opportunities to identify cylinders with defects so that they could be repaired or removed from service. However, the effect on the quantity of identified defects is uncertain even with the shorter timeframe of the No Action Alternative. For example, some cylinders would remain in service irrespective of the shorter timeframe, given § 180.205(c), which specifies that a cylinder filled before the requalification becomes due may remain in service until it is

emptied. Furthermore, § 180.209(c) provides that a DOT 4-series cylinder (except a 4L cylinder) must be requalified before being refilled if *at any time* it shows evidence of a leak or of internal or external corrosion, denting, bulging, or rough usage to the extent that it is likely to be weakened appreciably, or that has lost 5 percent or more of its official tare weight. Therefore, regardless of the requalification period, no cylinder may be filled and offered for transportation if it has evidence of damage.

In addition, while the failure of a DOT 4B, 4BA, 4BW, or 4E specification cylinder could result in a release of hazmat, which could in turn destroy property or cause environmental damage, PHMSA's incident data provides very few records indicating environmental damage resulting from cylinder incidents (of any type). Queried on April 30, 2020, to cover incidents occurring from 2000 to 2019, PHMSA's incident data provides only four cylinder incidents that indicate environmental damage.²⁰

Alternative 2: Preferred Alternative

The Preferred Alternative amends the requalification period for DOT 4-series specification cylinders in non-corrosive gas service, which is expected to result in decreased regulatory and economic burden. PHMSA does not anticipate that increased cylinder failures will occur because PHMSA believes that prior standards were conservative, as represented by the long-standing use of this common cylinder type and the lack of related incidents referenced in 5800.1 incident reports. Additionally, the

²⁰ See 5800.1 incident reports I-2005030510, I-2008090269, I-2010050100, and I-2010050100, available to query at <https://www.phmsa.dot.gov/hazmat-program-management-data-and-statistics/data-operations/incident-statistics> (Hazmat Incident Report Search Tool). Hazmat incidents may be under-reported to PHMSA.

requirements in § 180.209(c) — as referenced in the No Action Alternative — would still apply. The change clarifies and broadens regulatory requalification periods, ensuring consistency with training programs developed within the industry.

Alternative 3: NPGA Alternative

If PHMSA were to select the NPGA Alternative, the initial and subsequent requalification periods for the volumetric expansion and proof pressure tests would be extended to 12 years. However, the existing safety record does not justify the proposed universal 12-year interval for proof pressure testing. Increased cylinder failures could occur. While both volumetric expansion and proof pressure tests can be used to meet the requirements in § 180.209(e), they are not equivalent testing measures as claimed by NPGA.

PHMSA has selected the Preferred Alternative. There are no anticipated significant impacts in the release of environmental pollutants under either the No Action or Preferred Alternative. However, fewer trips transporting cylinders for retest may result in minor reductions to air pollutants, including greenhouse gases.

4. Agencies Consulted

PHMSA has coordinated with the Federal Aviation Administration, the Federal Motor Carrier Safety Administration, the Federal Railroad Administration, and the U.S. Coast Guard in the development of this final rule.

5. Conclusion

PHMSA finds that no significant environmental impact will result from this final rule. PHMSA received no comments related to safety or environmental impacts that may result from the changes adopted in this rulemaking.

K. Privacy Act

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

L. Executive Order 13609 and International Trade Analysis

Under Executive Order 13609 (“Promoting International Regulatory Cooperation”)²¹ agencies must consider whether the impacts associated with significant variations between 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

²¹ 77 FR 26413 (Nov. 9, 2000).

differences in regulatory requirements. This final rule does not impact international trade, and the amendments being adopted in this final rule do not preclude discussion with PHMSA's Canadian counterparts to align U.S. and Canadian cylinder requalification regulations more closely.

M. Executive Order 13211

Executive Order 13211 (“Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use”)²² 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 or regulation (including a notice of inquiry, ANPRM, and NPRM) 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; or (2) is designated by the Administrator of the Office of Information and Regulatory Affairs as a significant energy action. PHMSA received no comments related to energy impacts that may result from this final rule.

List of Subjects in 49 CFR Part 180

Hazardous materials transportation; Motor carriers; Motor vehicle safety; Packaging and containers; Railroad safety; Reporting and recordkeeping requirements.

²² 66 FR 28355 (May 22, 2001).

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

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

1. 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.

2. In § 180.209, revise Table 1 in paragraph (a) and paragraph (e) to read as follows:

§ 180.209 Requirements for requalification of specification cylinders.

(a) * * *

Table 1 to Paragraph (a)—Requalification of Cylinders ¹

Specification under which cylinder was made	Minimum test pressure (psig) ²	Requalification period (years)
3	3000 psig.	5.
3A, 3AA	5/3 times service pressure, except non-corrosive service (<i>see</i> § 180.209(g)).	5, 10, or 12 (<i>see</i> § 180.209(b), (f), (h), and (j)).
3AL	5/3 times service pressure.	5 or 12 (<i>see</i> § 180.209(j) and (m) ³).
3AX, 3AAX	5/3 times service pressure.	5.
3B, 3BN	2 times service pressure (<i>see</i> § 180.209(g)).	5 or 10 (<i>see</i> § 180.209(f)).
3E	Test not required.	

3HT	5/3 times service pressure.	3 (<i>see</i> §§ 180.209(k) and 180.213(c)).
3T	5/3 times service pressure.	5.
4AA480	2 times service pressure (<i>see</i> § 180.209(g)).	5 or 10 (<i>see</i> § 180.209(h)).
4B, 4BA, 4BW, 4B-240ET	2 times service pressure, except non-corrosive service (<i>see</i> § 180.209(g)).	5, 7, 10, or 12 (<i>see</i> § 180.209(e), (f), and (j)).
4D, 4DA, 4DS	2 times service pressure.	5.
4E	2 times service pressure, except non-corrosive service (<i>see</i> § 180.209(g)).	5, 10, or 12 (<i>see</i> § 180.209(e)).
4L	Test not required.	
8, 8AL		10 or 20 (<i>see</i> § 180.209(i)).
Exemption or special permit cylinder	See current exemption or special permit.	See current exemption or special permit.
Foreign cylinder (<i>see</i> § 173.301(j) of this subchapter for restrictions on use).	As marked on cylinder, but not less than 5/3 of any service or working pressure marking.	5 (<i>see</i> §§ 180.209(l) and 180.213(d)(2)).

¹ Any cylinder not exceeding 2 inches outside diameter and less than 2 feet in length is excepted from volumetric expansion test.

² For cylinders not marked with a service pressure, see § 173.301a(b) of this subchapter.

³ This provision does not apply to cylinders used for carbon dioxide, fire extinguisher, or other industrial gas service.

* * * * *

(e) *Cylinders in non-corrosive gas service.* A cylinder made in conformance with DOT Specifications 4B, 4BA, 4BW, or 4E protected externally by a suitable corrosion-resistant coating and used exclusively for non-corrosive gas that is commercially free from corroding components may be requalified by volumetric expansion testing every 12 years instead of every 5 years. As an alternative, the cylinder may be subjected to a proof pressure test at least two times the marked service pressure, but this latter type of

test must be repeated every 10 years after expiration of the initial 12-year period. When subjected to a proof pressure test, the cylinder must be carefully examined under test pressure and removed from service if a leak or defect is found.

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Issued in Washington, DC on October 6, 2020, under authority delegated in
49 CFR 1.97.

Howard R. Elliott,
Administrator,
Pipeline and Hazardous Materials Safety Administration.

[FR Doc. 2020-22483 Filed: 10/29/2020 8:45 am; Publication Date: 10/30/2020]