



## **DEPARTMENT OF TRANSPORTATION**

### **Pipeline and Hazardous Materials Safety Administration**

#### **49 CFR Parts 191, 192 and 195**

**[Docket No. PHMSA-2025-0019]**

**RIN 2137-AF44**

### **Pipeline Safety: Repair Criteria for Hazardous Liquid and Gas Transmission Pipelines**

**AGENCY:** Pipeline and Hazardous Materials Safety Administration (PHMSA),

Department of Transportation (DOT).

**ACTION:** Advance notice of proposed rulemaking (ANPRM).

**SUMMARY:** PHMSA is publishing this advance notice of proposed rulemaking to solicit stakeholder feedback on potential opportunities to improve the cost-effectiveness of its repair requirements for gas transmission and hazardous liquid or carbon dioxide pipelines. PHMSA also seeks stakeholder feedback on authorizing a risk-based approach for determining the inspection interval for in-service breakout tanks.

**DATES:** Comments on this ANPRM must be submitted by **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. PHMSA will consider late-filed comments to the extent practicable, consistent with 49 CFR 190.323.

**ADDRESSES:** You may submit comments identified by the Docket Number using any of the following ways:

*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:* DOT Docket Management System: West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, D.C. 20590-0001, between 9:00 a.m. and 5:00 p.m. EST, Monday through Friday, except Federal holidays.

*Fax:* 202-493-2251.

*Instructions:* Please include the docket number PHMSA-2025-0019 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 Statement:* 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. Pursuant to 49 Code of Federal Regulations (CFR) 190.343, you may ask PHMSA to provide confidential treatment to the 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 Saylor Palabrica, Office of Pipeline Safety (PHP-30), Pipeline and Hazardous Materials Safety Administration (PHMSA), 2nd Floor, 1200 New Jersey Avenue SE, Washington, D.C. 20590-0001, or by email at [saylor.palabrica@dot.gov](mailto:saylor.palabrica@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 <https://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:**

Saylor Palabrica, Transportation Specialist, by telephone (202) 744-0825, or by email at [saylor.palabrica@dot.gov](mailto:saylor.palabrica@dot.gov).

### **I. Executive Summary**

PHMSA is publishing this advance notice of proposed rulemaking (ANPRM) to solicit stakeholder feedback on potential opportunities to improve the cost-effectiveness of its repair requirements for gas transmission (49 CFR part 192) and hazardous liquid or carbon dioxide (49

CFR part 195) pipelines. Many of those requirements—particularly for hazardous liquid and carbon dioxide pipelines—have not been updated in over two decades, and others do not fully account for recent advancements in pipeline safety technology and best practices or the maturation of PHMSA’s regulatory regime. PHMSA is also seeking stakeholder feedback on authorizing risk-based inspection procedures for determining the inspection interval for in-service breakout tanks under part 195. Materials obtained from this ANPRM will inform a forthcoming notice of proposed rulemaking (NPRM) in this proceeding.

## **II. Background**

PHMSA’s safety standards for gas transmission lines (49 CFR part 192) and hazardous liquid and carbon dioxide pipelines (49 CFR part 195) address the remediation of anomalies in two ways: (1) through a set of traditional, prescriptive remediation requirements in the operation and maintenance provisions that generally apply to all pipelines; and (2) through risk-based, integrity management (IM) requirements that apply to pipeline segments posing risks to “high consequence areas.”<sup>1</sup> This two-tiered regulatory approach—coupled with PHMSA’s efforts to enhance its requirements for the design, construction, testing, operation, and maintenance of gas transmission and hazardous liquid or carbon dioxide pipelines—has contributed to a positive safety trend since 2005: fewer incidents and accidents entailing significantly lower public safety consequences and property damage.<sup>2</sup>

Despite this strong safety record, PHMSA recognizes that some of its repair requirements have not been updated for decades, and that others may not account for the latest advances in pipeline safety technology and industry best practices. PHMSA also recognizes that its repair

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<sup>1</sup> See §§ 192.903 (definition of high consequence areas, or HCAs, for gas transmission lines) and 195.450 (definition of HCAs for hazardous liquid and carbon dioxide pipelines)

<sup>2</sup> See PHMSA, “Pipeline Incident 20 Year Trends,” <https://www.phmsa.dot.gov/data-and-statistics/pipeline/pipeline-incident-20-year-trends> (last visited Mar. 26, 2025).

requirements may need to be updated to align with the significant changes made to part 192 and part 195 in recent rulemaking proceedings.<sup>3</sup> Existing repair requirements, therefore, may introduce barriers to development and deployment of innovative, safety-enhancing technology and industry practices by increasing costs and potential liability risks for first-movers. Similarly, the accretion of complex and potentially overlapping regulatory requirements over time could similarly stifle innovation and entail compliance costs without a corresponding safety benefit. For example:

- The repair criteria and remediation timelines in part 195 for hazardous liquid and carbon dioxide pipelines have been relatively static for decades. PHMSA’s generally applicable repair requirements at § 195.401 have not been changed substantially since 1981,<sup>4</sup> and the IM requirements for hazardous liquid and carbon dioxide pipelines at § 195.452 have not been updated substantially since their introduction in 2000.<sup>5</sup> In the years since the adoption of each of those regulatory frameworks, PHMSA has completed over a dozen rulemakings imposing a variety of design, testing, operational, maintenance, and emergency response requirements intended to reduce the frequency and severity of accidents on hazardous liquid and carbon dioxide pipelines.
- PHMSA most recently addressed part 192 anomaly remediation requirements for gas transmission lines in its August 24, 2022 final rule (a rulemaking initiated following the 2010 incident near San Bruno, CA).<sup>6</sup> That final rule updated repair criteria and remediation

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<sup>3</sup> Listing in this ANPRM the large number of those rulemakings would be difficult; however, PHMSA maintains a comprehensive list of its rulemakings on its website. *See* PHMSA, “Notices and Rulemaking Documents,” <https://www.phmsa.dot.gov/regulations/federal-register-documents> (last visited Mar. 27, 2025).

<sup>4</sup> Research and Special Programs Administration (RSPA), “Transportation of Liquids by Pipeline,” 46 FR 38357 (July 27, 1981).

<sup>5</sup> RSPA, “Pipeline Safety: Pipeline Integrity Management in High Consequence Areas (Hazardous Liquid Operators with 500 or More Miles of Pipe),” 65 FR 75406 (Dec 1, 2000).

<sup>6</sup> PHMSA, “Pipeline Safety: Safety of Gas Transmission Pipelines: Repair Criteria, Integrity Management Improvements, Cathodic Protection, Management of Change, and Other Related Amendments,” 87 FR 52224 (Aug 24, 2022).

timelines for certain high-risk anomalies in HCAs in IM requirements in subpart O and adopted similar repair criteria (but longer remediation timelines) for anomalies discovered outside of HCAs in its traditional, prescriptive requirements in subpart M.

- However, some of these amendments have been remanded to PHMSA for further consideration as a result of subsequent litigation.<sup>7</sup> PHMSA has, in the ten years since the San Bruno incident, also adopted a variety of new requirements in other recent rulemaking proceedings to reduce the frequency and severity of incidents on gas transmission lines.<sup>8</sup> PHMSA has not conducted a wholistic review of its repair criteria for gas transmission lines since making these changes.

In addition, PHMSA regulations at § 195.432 have for nearly four decades imposed a default annual inspection requirement for in-service breakout tanks associated with hazardous liquid pipelines.<sup>9</sup> Though PHMSA has amended that provision to provide operators limited flexibility to employ alternative inspection intervals derived from consensus standards incorporated by reference in § 195.432, it has declined to abandon the default annual inspection requirement<sup>10</sup> or authorize the use of risk based inspection procedures for establishing the inspection interval for in-service atmospheric and low-pressure steel above-ground breakout tanks in § 195.432(b).<sup>11</sup> An industry trade group has also criticized PHMSA's reluctance to

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<sup>7</sup> See *INGAA v. PHMSA*, 114 F.4th 744, 756 (D.C. Cir. 2024).

<sup>8</sup> Those recent rulemakings adopted new requirements on the following topics: design features and operational practices to improve rupture response practices; detailed procedures for confirmation of maximum allowable operating pressures; operator qualifications and incident response; state damage prevention programs; pipeline control room management; and multiple updates to its part 192 regulations to reference new or more recent editions of consensus industry standards governing design, testing, operation, maintenance, and emergency response for gas transmission pipelines.

<sup>9</sup> RSPA, "Transportation of Natural and Other Gas and Hazardous Liquids by Pipeline: Inspection and Test Intervals," 47 FR 46852 (Oct 21, 1982).

<sup>10</sup> RSPA, "Pipeline Safety: Adoption of Consensus Standard for Breakout Tanks," 64 FR 15926, 15932 (Apr 2, 1999) (declining to adopt wholesale the risk-based approach to inspection interval determination set forth in several standards issued by the American Petroleum Institute).

<sup>11</sup> PHMSA, "Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments," 80 FR 168, 171 (Jan 5, 2015).

embrace a risk-based approach to determining inspection intervals on in-service breakout tanks as a missed opportunity to reduce compliance burdens without diminishing safety.<sup>12</sup>

Review of PHMSA’s repair criteria, timelines, and IM requirements (as well as inspection intervals for breakout tanks on hazardous liquid pipelines) is also consistent with stakeholder recommendations and Presidential mandates. Industry trade organizations have suggested in comments on recent NPRMs that PHMSA may not adequately account for the relationship of related requirements across different rulemaking proceedings.<sup>13</sup> The National Transportation Safety Board (NTSB) has over the years similarly provided recommendations following incidents and accidents urging PHMSA to update its regulations to keep up with industry advancements and technological innovation.<sup>14</sup> A review of PHMSA’s repair criteria, remediation timelines, and IM requirements is also consistent with direction from President Trump, including Executive Order (E.O.) 14192, “Unleashing Prosperity Through Deregulation,” calling on agencies to identify opportunities to alleviate unnecessary regulatory compliance burdens imposed on industry and the general public; E.O. 14154, “Unleashing American Energy,” requiring agencies to reduce undue burdens on the identification, development, or use of domestic energy resources; and E.O. 14156, “Declaring a National Energy Emergency,” promoting the integrity and expansion of U.S. energy infrastructure.<sup>15</sup>

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<sup>12</sup> API “Supplemental Comments on Docket ID PHMSA-2011-0337; Pipeline Safety: Periodic Updates of Regulatory References to Technical Standards and Miscellaneous Amendments” (Apr. 30, 2014), available at: <https://www.regulations.gov/comment/PHMSA-2011-0337-0011>.

<sup>13</sup> See INGAA, Initial Comments on Gas Pipeline Leak Detection and Repair NPRM” at 2 (Aug. 16, 2023) (referencing PHMSA, “Final Rule - Pipeline Safety: Safety of Gas Transmission Pipelines: Repair Criteria, Integrity Management Improvements, Cathodic Protection, Management of Change, and Other Related Amendments,” 87 FR 52224 (Aug 24, 2022) (RIN2 Final Rule).

<sup>14</sup> See “PHMSA NTSB Recommendations,” available at: <https://www.phmsa.dot.gov/phmsa-ntsb-recommendations/phmsa-ntsb-recommendations> (last visited Mar. 27, 2025).

<sup>15</sup> E.O. 14192, “Unleashing Prosperity Through Deregulation,” 90 FR 9065 (Feb 6, 2025); E.O. 14152, “Unleashing American Energy,” 90 FR 8353 (Jan. 29 2025); E.O. 14156, “Declaring a National Energy Emergency,” 90 FR 8433 (Jan 29, 2025).

To develop proposals responding to the above considerations, recommendations, and directives, PHMSA is soliciting stakeholder feedback on, among other things: (1) the topics listed in section III below; (2) potential amendments to its parts 192 and 195 repair criteria, remediation timelines, and IM requirements; (3) the appropriateness of those amendments for different types of gas transmission pipelines and hazardous liquid or carbon dioxide pipelines; (4) the incremental compliance costs and benefits (including benefits pertaining to avoided compliance costs, safety harms, and environmental harms) anticipated from those amendments; and (5) the technical feasibility, reasonableness, cost-effectiveness, and practicability of those potential amendments. PHMSA plans to hold a public meeting in the near future to supplement or to clarify the materials received in response to this ANPRM.

With respect to incremental cost and benefit information, PHMSA is seeking per-unit, aggregate, and programmatic (both one-time implementing and recurring) data. Explanation of the bases or methodologies employed in generating cost and benefit data, including data sources and calculations, is valuable so that PHMSA can explain the support for any estimates it is able to provide that accompany a proposed rule, and other commenters may weigh in on the validity and accuracy of the data. Please also identify the baseline (*e.g.*, a particular edition of a consensus industry standard; widespread voluntary operator practice; or documentation of sample surveys and other operator level data or information) from which those incremental costs and benefits arise. When estimates are approximate or uncertain, consider using a range or specifying the distribution in other ways.

When responding to a specific question below please note the topic letter and question number in your comment. PHMSA will review and evaluate all comments received, as well as late-filed comments to the extent practicable.

### **III. Topics Under Consideration**

#### **A. General**

1. Do the anomaly repair criteria, remediation timelines, and IM regulations for gas transmission pipelines (part 192, subparts M and O) and hazardous liquid and carbon dioxide pipelines (§§ 195.401 and 195.452(h)(4)) strike an appropriate balance between safety benefits and compliance costs? If not, should PHMSA consider amending any of those provisions? Please identify any specific regulatory amendments that merit reconsideration, as well as the technical, safety, and economic reasons supporting those recommended amendments.
2. Do anomaly repair criteria, remediation timelines, and IM regulations for gas transmission pipelines (part 192, subparts M and O) and hazardous liquid and carbon dioxide pipelines (§§ 195.401 and 195.452(h)(4)) accommodate innovative technologies and methods for the discovery, evaluation, and remediation of anomalies? Are there specific, innovative technologies and methods with significant safety or cost-saving potential that are inhibited by regulations? Please identify any of those innovative technologies and methods, the categories of pipeline facilities (*e.g.*, hazardous liquid transmission pipelines; gas transmission pipelines) that could employ them, the particular regulatory provisions inhibiting their use, and any anticipated compliance cost savings or safety benefits from use of those technologies and methods.
3. PHMSA's risk-based IM regulations for gas transmission pipelines (part 192, subpart O) and hazardous liquid and carbon dioxide pipelines (§ 195.452(h)(4)) include specific thresholds for particular anomaly types and mandated remediation timelines in a manner consistent with traditional, prescriptive regulatory frameworks. Does that incorporation of traditional, prescriptive elements within PHMSA's risk-based IM regulations yield safety benefits

commensurate with the associated reduction in regulatory flexibility and increase in compliance costs to operators? Are there risks associated with prescribed repair conditions and remediation timelines, such as personnel safety and site environmental damage due to repair activity or lost product associated with maintenance-related blowdowns and evacuation? Should PHMSA consider amending any particular provisions in its IM regulations for gas transmission pipelines (part 192, subpart O) and hazardous liquid and carbon dioxide pipelines (§ 195.452) to strike a more appropriate balance between safety benefits and compliance costs? Please identify any specific regulatory amendments that merit consideration, as well as the technical, safety, and economic reasons supporting those recommended amendments.

4. Is it appropriate for repair timelines to begin on the date of “discovery” of anomalies on gas transmission (§§ 192.714(d) and 192.933(b)) and hazardous liquid and carbon dioxide pipelines (§§ 195.401(b)(1) and 195.452(h)(2))? How do operators of those pipelines determine the moment of discovery? Should PHMSA consider amending any particular regulatory provisions to improve the clarity or practical implementation of its regulations regarding when a remediation obligation attaches? Please provide the technical, safety, and economic justifications for any suggested revisions.
5. Are there any PHMSA interpretations addressing its anomaly repair criteria, remediation timelines, and IM regulations for gas transmission pipelines (part 192, subparts M and O) and hazardous liquid or carbon dioxide pipelines (§§ 195.401 and 194.452(h)(4))<sup>16</sup> impose unjustified compliance costs for different categories of pipeline facilities? If so, which categories of pipelines facilities, and what are those associated compliance costs? Are there any interpretations of PHMSA anomaly repair criteria, remediation timelines, and IM

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<sup>16</sup> PHMSA, “Letters of Interpretation,” available at: <https://www.phmsa.dot.gov/regulations/title49/b/2/1> (last accessed Mar. 11, 2025).

regulations that merit codification in parts 192 or 195 regulations? Please identify any specific regulatory amendments that merit consideration, as well as the technical, safety, and economic reasons supporting those recommended amendments.

6. Gas transmission, hazardous liquid, and carbon dioxide pipelines are not all identical and may merit distinguishable regulatory requirements regarding the discovery, evaluation, and remediation of anomalies. Are there substantive differences in the characteristics (*e.g.*, pipeline capacity or size; physical processes) of and among the different categories of gas transmission and hazardous liquid or carbon pipelines justifying distinguishable anomaly repair and IM requirements? In light of those differences, what, if any, amendments to PHMSA parts 192 and 195 regulations governing anomaly repair criteria, remediation timelines, and IM would be appropriate, and what would be the avoided practicability challenges, compliance costs, or safety impacts from such amendments?
7. What types of temporary and permanent repair methods do operators of gas transmission, hazardous liquid, and carbon dioxide pipelines use to comply with PHMSA's anomaly repair criteria, remediation timelines, and IM requirements? What percentage of repairs are completed using each type of repair method and for which types of anomalies? Do operators employ consensus industry standards or recommended practices (*e.g.*, the acceptable remediation methods listed in tables 451.6.2(b)-1 and 451.6.2(b)-2 of ASME B31.4-2006)<sup>17</sup> when determining the appropriate repair method for different types of anomalies or categories of gas and hazardous liquid or carbon dioxide pipelines? What is the average cost of each of those repair methods as applied to different types of anomalies or categories of gas transmission, hazardous liquid, or carbon dioxide pipelines?

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<sup>17</sup> ASME B31.4-2006, "Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids" is incorporated by reference in § 195.3 for other purposes. These tables appear as tables 451.6.2.9-1 and 451.6.2.9-2 in ASME B31.4-2022.

8. What proportion of small businesses, small organizations, or small government jurisdictions, as defined in the Regulatory Flexibility Act (5 U.S.C. 6010 et seq.) and its implementing regulations, operate different categories of gas, hazardous liquid, and carbon dioxide pipelines subject to PHMSA anomaly repair criteria, remediation timelines, and IM requirements? Please provide information about the nature and types of activities of small businesses and other small entities operating in midstream gas, hazardous liquid, and carbon dioxide pipeline sectors. How should the agency ensure that any potential changes to the existing regulations would not disproportionately impact small businesses or other small entities in the sector? Are there alternative regulatory approaches the agency should consider that would achieve its regulatory objectives while minimizing any significant economic impact on small businesses or other small entities?
9. Do the annual, incident, and safety-related condition reports required by parts 191 and 195 regulations require the submission of remediation-related information with limited or no safety value for particular categories of gas transmission, hazardous liquid, and carbon dioxide pipelines? Is there information required in the reports that is duplicative with the information required to be submitted to other State or Federal regulatory authorities? What costs would be avoided by eliminating or revising any such reporting requirements?
10. Should PHMSA amend its regulations governing prioritization of anomaly remediation on gas transmission (§ 192.714) and hazardous liquid and carbon dioxide pipelines (§ 195.401(b)(3)) to align more closely with its statutory mandate at 49 U.S.C. 108(b) and 49 U.S.C. 60102(a)(1) to prioritize public safety and protection against risks to life and property above other important policy objectives within the scope of its regulatory authority?

## **B. Repair Criteria and Remediation Timelines for Part 195-Regulated Hazardous**

### **Liquid or Carbon Dioxide Pipelines**

Section 195.401 requires repair within a “reasonable time” whenever an operator discovers anomalies on any hazardous liquid or carbon dioxide pipelines that could adversely affect safe operation. If an anomaly presents an “immediate hazard to persons or property,” the operator may not operate the affected portion until the condition has been corrected. Section 195.452(h) establishes remediation timelines for anomalies on HCA segments of hazardous liquid and carbon dioxide pipelines that must be repaired immediately, within 60-days, or within 180-days of discovery (remediation timelines), depending on the anomaly characteristics (repair criteria).

1. How do operators of different categories of hazardous liquid or carbon dioxide pipelines approach the discovery, evaluation, and remediation of anomalies on non-HCA segments in complying with repair requirements at § 195.401? Which elements, if any, do operators apply from the IM response criteria and remediation timelines at § 195.452(h) for anomalies discovered on non-HCA segments? Please describe typical costs associated with discovery, evaluation, and remediation of anomalies on non-HCA segments, with as much specificity by anomaly type as possible.
2. Are there alternatives or supplements to the anomaly repair criteria and remediation timelines that should be incorporated into PHMSA’s IM regulations? Are there particular anomaly types whose risks justify existing repair criteria and remediation timelines, or even broader repair criteria and more aggressive timelines than specified in PHMSA regulations?  
Conversely, are there anomalies identified in PHMSA regulations whose lower risks justify different repair criteria or longer remediation timelines than specified in the regulations?  
Please identify any specific regulatory amendments that merit consideration, as well as the technical, safety, and economic reasons supporting those recommended amendments.

3. What methods do operators use to evaluate anomalies when material properties of a pipeline segment are unknown? What activities, if any, do operators perform to obtain unknown material property information for anomaly evaluation, and what incremental, per-unit costs are associated with those activities? Are there assumed or conservative values used when material properties are unknown, and what is the technical basis for those values (*e.g.*, operator-specific experience, or consensus industry standards and recommended practices)? How has obtaining material property information affected the classification of anomalies compared with using assumed or conservative values?
  
4. Should PHMSA consider adopting predicted failure pressure-based criteria for evaluating anomalies on hazardous liquid and carbon dioxide pipelines under part 195? If so, what is an appropriate method to predict failure pressure for different types of anomalies on different categories of hazardous liquid and carbon dioxide pipelines? Do hazardous liquid and carbon dioxide pipeline operators employ a predicted failure pressure-based response criterion for any anomalies on their facilities? Would such an approach be more appropriate for some types of anomalies (*e.g.*, metal loss anomalies) than others? And would such a criterion be appropriate for all part 195-regulated hazardous liquid and carbon dioxide pipelines? What amendments to part 192 regulatory language would be necessary when applied to part 195-regulated hazardous liquid and carbon dioxide pipelines? Are the consensus industry standards referenced in part 192 regulations appropriate for calculating predicted failure pressure on hazardous liquid and carbon dioxide pipelines, and what alternatives may be appropriate to consider?<sup>18</sup> Please provide the technical, safety, and economic reasons for any suggested regulatory amendments, noting in particular the potential

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<sup>18</sup> See AGA, Pipeline Research Committee Project, PR-3-805, “A Modified Criterion for Evaluating the Remaining Strength of Corroded Pipe” (Dec. 22, 1989); ASME/ANSI B31G-1991, “Manual for Determining the Remaining Strength of Corroded Pipelines” (2004).

compliance costs and implementation challenges associated with adopting a predicted failure pressure-based repair criterion.

5. Are repair criteria and remediation timelines for hazardous liquid and carbon dioxide pipelines appropriate for metal loss anomalies on a longitudinal seam for HCA and non-HCA segments? How do operators evaluate metal loss anomalies on a longitudinal seam? Are there innovative technologies or methods for improved evaluation of metal loss anomalies on a longitudinal seam that could justify amendments to the repair criteria for HCA segments at § 195.452? Please identify any specific regulatory amendments that merit reconsideration, as well as the technical, safety, and economic reasons supporting those recommended amendments.
  
6. Are repair criteria and remediation timelines for hazardous liquid and carbon dioxide pipelines appropriate for dents and mechanical damage anomalies on HCA and non-HCA segments? How do operators evaluate dent and mechanical damage anomalies? Are there innovative technologies or methods (*e.g.*, engineering critical assessments, or ECAs) for improved evaluation of dents and mechanical damage anomalies that could justify adjustment of the repair criteria for such anomalies? What ECA methodologies (*e.g.*, API RP 1183<sup>19</sup>) or elements thereof, such as safety factors, and finite element analysis, would be appropriate for use? What elements and supportive records are necessary for an effective ECA of a dent or mechanical damage anomaly on a hazardous liquid or carbon dioxide pipeline? Are there circumstances (*e.g.*, operating environments; physical characteristics of the commodity transported) where ECAs would be an inappropriate or challenging tool for evaluating dents and mechanical damage anomalies on different categories of hazardous liquid and carbon dioxide pipelines? Please provide the technical, safety, and economic

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<sup>19</sup> API, Recommended Practice 1183, “Assessment and Management of Dents in Pipelines,” first edition (Nov. 2020) (including Errata 1 (Jan. 2021) and Addendum 1 (May 2024)) (API RP 1183).

reasons for any recommended amendments, noting in particular any potential program implementation costs and unit costs of each ECA conducted, avoided compliance costs due to deferred repair or for another reason, and implementation challenges.

7. Are repair criteria and remediation timelines for hazardous liquid and carbon dioxide pipelines appropriate for dents with metal loss or other interacting integrity threats on HCA and non-HCA segments? What technologies or methods could be used to evaluate dent anomalies with metal loss and other interacting threats? Are there any pertinent consensus industry standards or recommended practices that merit evaluation for incorporation by reference in PHMSA regulations? Please identify any specific regulatory amendments that merit consideration, as well as the technical, safety, and economic reasons supporting them.

### **C. Repair Criteria and Remediation Timelines for Part 192-Regulated Gas**

#### **Transmission Pipelines**

1. Are the regulatory requirements at § 192.712(c) governing performance of ECAs for dents and mechanical damage anomalies on gas transmission lines appropriate?<sup>20</sup> Is an ECA an appropriate means of evaluating dents and mechanical damage anomalies on pipelines in some scenarios but not others? Should PHMSA consider amending any elements of the ECA process prescribed at § 192.712(c) to strike a more appropriate balance between safety benefits and costs? Please identify any specific regulatory amendments that merit consideration, as well as the technical, safety, and economic reasons supporting those recommended amendments.

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<sup>20</sup> PHMSA notes that even as a reviewing court found that PHMSA had not provided adequate discussion of the compliance costs associated with a minimum dent safety factor set forth in ECA procedures at § 192.712(c), the court's decision did not address the safety benefits of PHMSA's choice of safety factor. *See Interstate Natural Gas Assn. v. PHMSA*, 114 F.4th 744, 752-753 (Aug. 16, 2024).

2. Should ECA methodologies or elements thereof within consensus industry standards and recommended practices (*e.g.*, API RP 1183)<sup>21</sup> inform the ECA requirements in § 192.712? Are the safety factors, required elements, and supporting records identified in consensus industry standards and recommended practices appropriate to use in evaluating dent and mechanical damage anomalies on gas transmission lines, or are alternative approaches advisable? Please identify any specific regulatory amendments that merit consideration, as well as the technical, safety, and economic reasons supporting those recommended amendments.
3. What were the incremental, per-unit costs and benefits associated with establishing an ECA program and subsequently conducting each ECA? Were there any cost savings associated with deferred remediation due to the ECA?
4. Are part 192 repair criteria, remediation timelines, and IM requirements for gas transmission pipelines appropriate for dents with metal loss or other interacting integrity threats? What technologies or methods could be used to evaluate dent anomalies with metal loss and other interacting threats? Are there any pertinent consensus industry standards or recommended practices that should be incorporated by reference in PHMSA regulations? Please identify any specific regulatory amendments that merit consideration, as well as the technical, safety, and economic reasons supporting those recommended amendments.
5. Are the re-assessment frequencies for anomalies on gas transmission pipelines (§ 192.712(h)) that have been evaluated using an ECA appropriate? Should PHMSA consider amending those re-assessment intervals to strike a more appropriate balance between safety benefits and costs?

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<sup>21</sup> API, Recommended Practice 1183, “Assessment and Management of Pipeline Dents” (First edition 2020).

#### **D. In-Service Part 195 Regulated Hazardous Liquid Pipeline Breakout Tanks**

1. How should part 195 regulations address the assessment of and remediation of anomalies on in-service breakout tanks? Would incorporating the risk-based inspection interval provided for in consensus industry standards (e.g., the fifth edition of API Std 653) within PHMSA regulations be appropriate for some or all breakout tanks?<sup>22</sup> Please identify any specific regulatory amendments that merit consideration, as well as the technical, safety, and economic reasons supporting those recommended amendments.

Issued in Washington, DC, on May 15, 2025, under the authority delegated in 49 CFR

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**Benjamin D. Kochman,**

*Acting Administrator.*

[FR Doc. 2025-09078 Filed: 5/20/2025 8:45 am; Publication Date: 5/21/2025]

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<sup>22</sup> API Standard 653, “Tank Inspection, Repair, Alteration, and Reconstruction,” 5th edition, Nov. 2014 (including addendum 1 (Apr. 2018), addendum 2 (May 2020), addendum 3 (Nov. 2023), errata 1 (Mar. 2020), and errata 2 (Feb. 2025)), section 6.4.2.2.2, Subsequent Internal Inspection Interval.