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Guide to Public Comment: PHMSA's Advanced Leak Detection Rulemaking

I. Purpose

This document, prepared by the Pipeline Safety Trust,¹ is meant to serve as a guide for stakeholders and members of the public for submitting comments on the Pipeline & Hazardous Materials Safety Administration's (PHMSA) rulemaking, Pipeline Safety: Gas Pipeline Leak Detection and Repair (Advanced Leak Detection rule or ALD rule).

This rule is a product of the Protecting Our Infrastructure of Pipelines and Enhancing Safety (PIPES) Act of 2020.² The mandate for this rule is mostly found at section 113, which requires PHMSA to develop standards for operators to use advanced leak detection systems to find leaks and repair them. The notice of proposed rulemaking (NPRM or NOPR) was published in the Federal Register on May 18, 2023.³ On June 29, PHMSA extended the comment period to August 16, 2023.

Overall, the rule will greatly mitigate methane emissions and improve pipeline safety. The rule requires the use of advanced leak detection programs, increases leak survey frequency, limits intentional emissions, and requires the repair of all leaks. The rule will apply to 2.7 million miles of gas transmission, distribution, and gathering pipelines, in addition to 400 underground natural gas storage facilities and 165 liquefied natural gas facilities.

We appreciate your interest in submitting a comment on this docket. We hope that given the significant public safety, environmental, and climate benefits of the rule that PHMSA will receive plenty of support. If you have any questions on this document or would like to discuss it with someone at the Pipeline Safety Trust, please contact Erin Sutherland, Policy & Program Director/Counsel at erin@pstrust.org.

II. How and Where to Submit a Comment

Comments may be submitted by clicking the blue "Comment" button on the [docket page](#) for this rule found on regulations.gov. The docket number for this rule is PHMSA-2021-0039. The Pipeline Safety Trust also plans to prepare an action alert so that members of the public may more easily submit comments directly into the docket. Information for the action alert is forthcoming. Comments should be short, plainly worded, and take clear positions on what PHMSA should do with this rule. Be sure to reference the docket number in your comment and submit it by the deadline of August 16, 2023.

III. Resources

- [PST Webpage on Methane Leak Detection and Repair](#)
- [PST Guide to Pipeline Safety Rulemaking](#)

¹ The [Pipeline Safety Trust](#) is a nonprofit, watchdog organization dedicated to pipeline safety. We do this through education and advocacy, increasing access to information, and building partnerships with residents, safety advocates, government, and industry to promote safe communities and a healthy environment.

² Consolidated Appropriations Act, 2021, H.R. 113, 116th Cong., Div. R, § 113 (2020) <https://www.congress.gov/116/plaws/publ260/PLAW-116publ260.pdf> ("PIPES Act").

³ 88 Fed. Reg. 21,890 (May 18, 2023).

IV. Comment Content Suggestions

The Pipeline Safety Trust is supportive of this rule and believe that commenters should commend PHMSA for finally addressing the safety, climate, and environmental risks associated with leaky natural gas pipelines. PHMSA developed the current pipeline safety regulations largely before the consensus understanding of methane’s potent climate effects and are in desperate need of modernization. We suggest commenters offer input on the following items:

A. *The rule should be promulgated as expediently as possible.*

Natural gas now contributes more to U.S. climate pollution than coal.⁴ Methane is extremely potent, with more than 80 times the global warming power of carbon dioxide in the first 20 years. Our nation is facing a climate crisis, with critical infrastructure such as highways, bridges, and pipelines being impacted on an almost daily basis. Further, environmental justice communities experience the impacts of climate change and pipeline leaks at a disproportionate rate.⁵ We should be expediting policy that mitigates further GHG emissions and protects our infrastructure and natural resources. This rule has the potential to help mitigate the near-term effects of climate change, such as extreme weather events and natural disasters, by substantially reducing the amount of methane emitted into the atmosphere.

B. *The rule should cover intentional emissions.*

Pipeline operators must conduct maintenance activities and monitor pressure on pipelines to keep them safe. However, this is often used as a justification to release massive amounts of methane into the atmosphere, despite the fact that these activities are often planned in advance and technology is readily available and already used by many operators.⁶ PHMSA should maintain the rule’s requirement that operators mitigate intentional emissions such as blowdowns to protect the environment and promote pipeline safety as well as the rule’s requirement that operators publicly report such activities. PHMSA has clear authority and direction from Congress, and with the advancement in technology and the dire situation with climate change, there is no reason why operators should be allowed to avoid mitigating intentional emissions.

C. *All leaks should be considered hazardous and repaired.*

According to the PIPES Act, advanced leak detection programs should apply to all leaks that are hazardous to the environment or are hazardous or have the potential to become explosive or “otherwise hazardous” to human safety. To ensure that Congress’ intent is met, the definition of “hazardous leaks” should be broad, meaning that all leaks, big and small, should be covered. While “small” or seemingly “non-

⁴ Friedlingstein, P. et al., *Global Carbon Budget 2022*, Earth Syst. Sci Data, 14, 4811–4800, <https://doi.org/10.5194/essd-14-4811-2022>, 2022, visualized by https://robbieandrew.github.io/GCB2022/PNG/s35_2022_Category_USA.png.

⁵ Ryan E. Emanuel et al., *Natural Gas Gathering and Transmission Pipelines and Social Vulnerability in the United States*, 5 GEOHEALTH 6, 2021 <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021GH000442>; Zachary D. Weller et al., *Environmental Injustices of Leaks from Urban Natural Gas Distribution Systems: Patterns Among and Within 13 U.S. Metro Areas*, 56 ENVIRON. SCI. TECHNOL. 8599, 2022 <https://pubs.acs.org/doi/pdf/10.1021/acs.est.2c00097>; Marcos Luna & Dominic Nicholas, *An Environmental Justice Analysis of Distribution-Level Natural Gas Leaks in Massachusetts, USA*, 162 ENERGY POLICY 112778, 2022 <https://doi.org/10.1016/j.enpol.2022.112778>.

⁶ Dana Lowell et al., *Analysis of Pipeline and Hazardous Materials Safety Administration Proposed New Safety Rules: Pipeline Blowdown Emissions and Mitigation Options* (June 2016) <https://pstrust.org/wp-content/uploads/2015/10/PHMSA-Blowdown-Analysis-DRAFT-FINAL-30jun16.pdf>.

hazardous” leaks have been discounted for decades, we now know that cumulatively, these leaks add up. Over time, the effects of those small leaks are large and impactful to both humans and the environment, including our climate.

D. The rule should cover all gathering lines.

To meet the need for gas pipeline safety and to protect the environment, the rule should apply to all gathering lines. Hundreds of thousands of miles of gathering lines exist in the US, and many of them are in locations in which leaks would be hazardous to human health and/or the environment. Research shows that gathering lines contribute an outsized role in overall pipeline methane emissions and are leaking at a rate that exceeds estimates; with one study by EDF demonstrating that the emissions from gathering lines in the Permian Basin were leaking 14x more methane than EPA’s estimate.⁷ The cumulative effect of these emissions is immeasurable at this time—but it appears that our understanding of methane emissions from gas gathering pipelines is a severe underestimate.

E. The rule’s reporting standard should match that of the EPA’s subpart W rulemaking.

Clear and consistent reporting requirements are critical to public transparency, successful implementation of the rule, and achieving our climate goals. PHMSA is right to amend its 3 million cubic feet reporting threshold, which will advance these goals, but 1 million cubic feet is still too high. We recommend that PHMSA consider coalescing its proposal to match EPA’s subpart W greenhouse gas reporting standard for large release events, which places the threshold at 500,000 scf of natural gas.⁸

⁷ Jevan Yu et al., *Methane Emissions from Natural Gas Gathering Pipelines in the Permian Basin*, ENVIRON. SCI. TECHNOL. LETT. (2022) <https://pubs.acs.org/doi/10.1021/acs.estlett.2c00380>.

⁸ Env’t. Prot. Agency, *Greenhouse Gas Reporting Rule: Revisions and Confidentiality Determinations for Petroleum and Natural Gas Systems* (June 30, 2023) (not yet published in Federal Register) [https://www.epa.gov/system/files/documents/2023-07/SAN%2010246%20Subpart%20W%20NPRM%20Preamble%20and%20Rule Admin.pdf](https://www.epa.gov/system/files/documents/2023-07/SAN%2010246%20Subpart%20W%20NPRM%20Preamble%20and%20Rule%20Admin.pdf).