

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

[Docket No. PHMSA-2021-0050]

Pipeline Safety: Statutory Mandate to Update Inspection and Maintenance Plans to Address Eliminating Hazardous Leaks and Minimizing Releases of Natural Gas from Pipeline Facilities.

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA); DOT.

ACTION: Notice; issuance of advisory bulletin.

SUMMARY: PHMSA is issuing this advisory bulletin to remind each owner and operator of a pipeline facility that the “Protecting our Infrastructure of Pipelines and Enhancing Safety Act of 2020” (PIPES Act of 2020) contains a self-executing mandate requiring operators to update their inspection and maintenance plans to address eliminating hazardous leaks and minimizing releases of natural gas (including intentional venting during normal operations) from their pipeline facilities. Operators must also revise their plans to address the replacement or remediation of pipeline facilities that are known to leak based on their material, design, or past operating and maintenance history. The statute requires pipeline operators to complete these updates by December 27, 2021.

FOR FURTHER INFORMATION CONTACT:

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I. SUPPLEMENTARY INFORMATION:

Natural gas is composed primarily of methane, therefore leaks and other releases of natural gas emit methane gas into the atmosphere. According to the U.S. Environmental Protection Agency (EPA), methane is a potent greenhouse gas with a global warming potential (GWP) of 28-36 over 100 years.¹ Compared to carbon dioxide, methane gas has a stronger warming effect, but a shorter lifespan in the atmosphere. Due to the high GWP and short lifespan of methane gas in the atmosphere, minimizing releases of natural gas (both fugitive and vented emissions) has relatively near-term benefits to mitigating the consequences of climate change. Likewise, remediation or replacement of pipeline facilities that are known to leak based on material, design or past operating and maintenance history can result in enhanced public safety, environmental protection, and economic benefits.

The “Protecting our Infrastructure of Pipelines and Enhancing Safety Act of 2020” (Pub. L. 116-260, Division R; “PIPES Act of 2020”) was signed into law on December 27, 2020. This law contains several provisions that specifically address the elimination of hazardous leaks and minimization of releases of natural gas from pipeline facilities. Section 114(b) of the PIPES Act of 2020 contains self-executing provisions that apply directly to pipeline operators. This section requires each pipeline operator to update its inspection and maintenance plan required under 49 U.S.C. 60108(a) no later than one year after the date of enactment of the PIPES Act of 2020 (i.e., by December 27, 2021) to address the elimination of hazardous leaks and minimization of releases of natural gas (including, and not limited to, intentional venting during normal operations) from the operators’ pipeline facilities (49 U.S.C. 60108(a)(2)(D)). The PIPES Act of 2020 also requires those plans to address the replacement or remediation of pipelines that are

¹ “Understanding Global Warming Potentials,” U.S. EPA, available at <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials>.

known to leak due to their material (including cast iron, unprotected steel, wrought iron, and historic plastics with known issues), design, or past operating and maintenance history (49 U.S.C. 60108(a)(2)(E)). In addition, 49 U.S.C. 60108(a)(2) requires that operators continue updating these plans to meet the requirements of any future regulations related to leak detection and repair that are promulgated under 49 U.S.C. 60102(q).

II. ADVISORY BULLETIN (ADB-2021-01)

To: Owners and Operators of Gas and Hazardous Liquid Pipeline Facilities.

Subject: Statutory Mandate to Update Inspection and Maintenance Plans to Address Eliminating Hazardous Leaks and Minimizing Releases of Natural Gas from Pipeline Facilities.

Advisory: The PIPES Act of 2020 contains self-executing provisions requiring pipeline facility operators to update their inspection and maintenance plans to address the elimination of hazardous leaks and minimization of releases of natural gas (including, and not limited to, intentional venting during normal operations) from their systems before December 27, 2021. PHMSA expects that operators will comply with the inspection and maintenance plan revisions required in the PIPES Act of 2020 by revising their operations and maintenance (O&M) plans required under 49 CFR 192.605, 193.2017, and 195.402, to address the elimination of hazardous leaks and minimize releases of natural gas from pipeline facilities. The plans must also address the replacement or remediation of pipelines that are known to leak due to their material (including cast iron, unprotected steel, wrought iron, and historic plastics with known issues), design, or past O&M history. The plans must in be in writing, tailored to the operator's pipeline facilities, supported by technical analysis where necessary, and sufficiently detailed to clearly describe the manner in which each requirement is met. For additional guidance on O&M plans

for hazardous liquid and natural gas pipeline facilities, see “Operations & Maintenance Enforcement Guidance,” part 192 subparts L and M, page 17, available at <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/regulatory-compliance/pipeline/enforcement/5776/o-m-enforcement-guidance-part-192-7-21-2017.pdf>; and “Operations & Maintenance Enforcement Guidance,” part 195 subpart F, page 18, available at <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/regulatory-compliance/pipeline/enforcement/5781/o-m-enforcement-guidance-part-195-7-21-2017.pdf>.

Pursuant to 49 U.S.C. 60108(a)(3), as amended by section 114(a) of the PIPES Act of 2020, PHMSA and state authorities with a certification under 49 U.S.C. 60105 will inspect operators’ revised O&M plans in calendar year 2022, and such inspections must be completed by December 27, 2022. During these inspections, PHMSA, or the relevant state authority, is required to evaluate whether the plans adequately address items listed in section 114 of the PIPES Act of 2020.

Operators need to consider the following items as they update their plans to comply with section 114 of the PIPES Act of 2020:

- O&M plans must be detailed to address the elimination of hazardous leaks and minimization of releases of natural gas from the operators’ pipeline facilities; meaning pipeline operators must update their plans to minimize, among other things, fugitive emissions and vented emissions from pipeline facilities. PHMSA and state inspections, therefore, will evaluate the steps taken to prevent and mitigate both unintentional, fugitive emissions as well as intentional, vented emissions. Fugitive emissions include any unintentional leaks from equipment such as pipelines, flanges, valves, meter sets, or other equipment. Vented emissions include any release of

natural gas to the atmosphere due to equipment design or operations and maintenance procedures. Common sources of vented emissions include pneumatic device bleeds, blowdowns, incomplete combustion, or overpressure protection venting (e.g., relief valves).

- O&M plans must address the replacement or remediation of pipelines that are known to leak based on the material (including cast iron, unprotected steel, wrought iron, and historic plastics with known issues), design, or past operating and maintenance history of the pipeline. PHMSA and state inspections will include an evaluation of how the material present in the pipeline system, design of the system, as well as the past O&M history of the system, contribute to the leaks that occur on the system. PHMSA and states will evaluate whether the plans adequately address reducing leaks on operators' pipeline systems due to the aforementioned factors.
- Operators must carry out a current, written O&M plan to address public safety and the protection of the environment. In addition to the new statutory requirement that PHMSA and state inspections consider the extent to which the plans will contribute to the elimination of hazardous leaks and minimizing releases of natural gas from pipeline facilities, PHMSA's inspections will continue to include an evaluation of the extent to which the plans contribute to both public safety and the protection of the environment.

Developing and implementing comprehensive written O&M plans is an effective way to eliminate hazardous leaks and minimize the release of natural gas from pipeline systems.

PHMSA anticipates these self-executing statutory mandates will result in enhanced public safety and reductions in pipeline emissions thereby reducing impact on the environment.

Issued in Washington, DC, on June 04, 2021, under authority delegated in 49 CFR 1.97.

Alan K. Mayberry,
Associate Administrator for Pipeline Safety.