CARBON CAPTURE COALITION

Fact Sheet

PHMSA &Pipeline Safety

SAFETY RECORD OF EXISTING CO_2 PIPELINE NETWORK

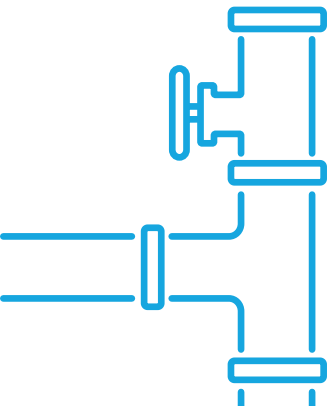
Carbon dioxide (CO_2) pipelines have operated safely in the United States for over 50 years. Currently, 50 operating pipelines span over 5,000 miles, with individual pipelines safely transporting millions of tons of CO_2 annually over hundreds of miles and across entire regions of the country. These pipelines have an excellent safety record—one that easily surpasses other essential energy infrastructure, such as electric transmission and distribution systems. Safety data reported by the Pipeline and Hazardous Materials Safety Administration (PHMSA), the agency charged with overseeing CO_2 pipeline safety, shows that CO_2 pipelines have been and can be operated at the highest level of safety by best-practice operators. Since reporting began, CO_2 pipelines have had a strong safety record, though a rare but serious pipeline failure in Satartia, Mississippi, in 2020 has increased public and policymaker concerns about pipeline safety and the overall reliability of these systems as they scale.

The Carbon Capture Coalition (the Coalition) has long supported rigorous safety design, inspection, and maintenance protocols associated with carbon capture, transport, and storage infrastructure. Economywide deployment of carbon management in the US plays a valuable role in providing reliable, affordable domestic energy for American families and solidifying the country's role as a global leader in sustainable energy production, industry, and manufacturing. Congress has responded appropriately, investing in significant federal policy support to incentivize the widescale deployment of the full suite of these technologies. For these technologies to reach their full potential, a substantial buildout of safe, reliable CO_2 pipeline infrastructure will be needed to transport large quantities of captured CO_2 from emissions sources to points of reuse and permanent geologic storage.

Full confidence from the public and policymakers in the safe design, construction, and operation of CO_2 pipelines is essential to scale these infrastructure systems and reduce emissions across vital sectors of the US economy.

CURRENT SAFETY STANDARDS UNDER PHMSA

The US Department of Transportation (DOT) has regulated the safety of CO_2 pipelines since the Hazardous Liquid Pipeline Act of 1979. PHMSA was established in 2004 as an agency within the DOT and currently oversees CO_2 pipeline safety operations. Under current statute, there are multiple steps that CO_2 pipeline operators must take to ensure pipelines are operated safely, including attention to pipeline design, protection against corrosion, monitoring for leaks, and safeguards against overpressure. Operators must have pressure monitors on their pipelines to know when a leak or rupture occurs and can initiate shut-off valves to mitigate the release of CO_2 from the pipeline.



CO_2 pipeline operators are required to submit an annual report to PHMSA, which includes information such as the length (miles) of the pipeline operated, the barrel-miles of CO_2 transported (total barrels of CO_2 transported multiplied by miles of pipeline), and various safety inspections and structural integrity assessments conducted that year.

Under PHMSA's current regulations, all newly constructed CO_2 pipelines must include automatic shut-off valves, which contribute to faster shutdown times. Faster shutdown times will help improve safety by allowing emergency first responders who respond to fires and injuries to access pipelines more quickly.

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PHMSA also has a number of required safety programs that CO_2 pipeline operators must follow, including:

Operations Maintenance Emergency: The Operations & Maintenance Enforcement Guidance document provides guidance and regulations for operators.

Control Room Management: Most CO_2 pipeline operators monitor and manage their pipelines remotely through a control room. The Control Room Management safety program provides regulations for operators to help reduce control room errors, especially in emergency situations.

Public Awareness: CO_2 pipeline operators are required to have a public awareness program that provides pipeline safety information to the affected public, emergency officials, local public officials, and excavators.

Damage Prevention: Regulations for excavations around CO_2 pipelines to prevent damage to pipelines. Damage to pipelines is a leading cause of pipeline incidents.

Operator Qualification: Operators must have designated employees trained to respond to abnormal operating conditions, such as severe weather, related to their pipelines.

Drug and Alcohol Testing: Operators must have a drug and alcohol testing plan for employees who work on certain aspects of pipeline operations.

COALITION'S ADVOCACY ON PIPELINE SAFETY

In 2022, PHMSA released the incident report for the 2020 pipeline failure in Satartia, Mississippi, which provided insights into probable operator violations that led to the rupture. Along with the report, the agency announced several additional measures to ensure that the further build-out of CO_2 transport infrastructure is done to the highest safety standards, including a new rulemaking that will build upon existing comprehensive CO_2 pipeline regulations. The administration must prioritize finalizing the rulemaking to provide CO_2 transport project developers with long-overdue regulatory certainty needed to move projects forward.

The Coalition supports the implementation of common-sense steps to ensure these projects can scale safely, responsibly, and urgently. To that end, the Coalition's 2025 Federal Policy Blueprint details a comprehensive and targeted set of measures Congress and the administration should take to ensure these transport infrastructure networks are designed, constructed, and maintained at rigorous standards, delivering the highest levels of reliability and safety. These measures can further enable the deployment of these technologies at levels sufficient to enable nationwide deployment of carbon capture and removal technologies. The Coalition recommends that the administration:

- **Expand first responder training for CO_2 pipeline safety incidents.**
- **Require project proponents to more rigorously consider potential geohazard impacts on CO_2 pipelines during design, siting, construction, and maintenance.**
- **Request that PHMSA conduct additional reporting on the public safety record of CO_2 pipelines.**

In addition to the above commonsense safety measures, PHMSA's three-year authorization expired in September 2023. Congress must work to reauthorize the agency to ensure that adequate staffing and resources are provided for PHMSA's crucial pipeline stafety activities.

The Carbon Capture Coalition champions common-sense steps to build upon comprehensive existing CO_2 pipeline regulations and looks forward to continuing to engage with the agency and bipartisan members of Congress to take steps to support the responsible build-out of these systems. To support the efficient build-out of these systems, the Coalition also supports the administration carrying out a national assessment of the CO_2 network necessary to meet nationwide deployment goals and reduce emissions.