



U.S. Department  
of Transportation

1200 New Jersey Avenue, SE  
Washington, DC 20590

**Pipeline and Hazardous  
Materials Safety Administration**

**May 13, 2024**

Mr. Curtis Haverkamp  
Subsurface Injection Coordinator  
Colorado Energy & Carbon Management Commission  
1120 Lincoln Street Suite 801  
Denver, CO 80203

Dear Mr. Haverkamp:

In a letter to the Pipeline and Hazardous Materials Safety Administration (PHMSA), received on January 18, 2024, you asked two questions related to the Federal pipeline safety regulations in 49 Code of Federal Regulations (CFR) Part 192:

**Question 1:** What is PHMSA’s current position regarding the underground storage of natural gas and hydrogen blends?

**Response to question 1:** PHMSA understands your question to inquire about the application of the PHMSA pipeline safety regulations to an underground facility that stores a blend of natural gas and hydrogen. The pipeline safety regulations at 49 CFR Part 192, Subpart A, identify general regulatory information, including definitions and applicability of the regulations as they apply to gas pipeline facilities under the Pipeline Safety Act (Act) at 49 U.S.C. § 60101 *et seq.* The scope of Part 192 is described in § 192.1, which states the part prescribes minimum safety requirements for pipeline facilities and the transportation of gas. The terms “gas,” “pipeline facility,” “transportation of gas,” and “underground natural gas storage facility (UNGSF)” are defined at § 192.3 as follows:

*Gas* means natural gas, flammable gas, or gas which is toxic or corrosive.

*Pipeline facility* means new and existing pipelines, rights-of-way, and any equipment, facility, or building used in the transportation of gas or in the treatment of gas during the course of transportation.

*Transportation of gas* means the gathering, transmission, or distribution of gas by pipeline or the storage of gas, in or affecting interstate or foreign commerce.

*Underground natural gas storage facility (UNGSF)* means a gas pipeline facility that stores natural gas underground incidental to the transportation of natural gas, including:

- (1)(i) A depleted hydrocarbon reservoir;
- (ii) An aquifer reservoir; or
- (iii) A solution-mined salt cavern.

(2) In addition to the reservoir or cavern, a UNGSF includes injection, withdrawal, monitoring, and observation wells; wellbores and downhole components; wellheads and

associated wellhead piping; wing-valve assemblies that isolate the wellhead from connected piping beyond the wing-valve assemblies; and any other equipment, facility, right-of-way, or building used in the underground storage of natural gas.

Section 192.12 of PHMSA’s regulations establishes the safety standards for UNGSFs. Section 192.12 was added to Part 192 in the February 2020 Final Rule titled “Pipeline Safety: Safety of Underground Natural Gas Storage Facilities.”<sup>1</sup> As the definition of UNGSF makes clear, § 192.12 regulates only the underground storage of natural gas and does not cover an underground facility that stores other gases.<sup>2</sup>

PHMSA notes that while underground storage of gases other than natural gas is not presently regulated by § 192.12, the transportation by a pipeline of those gases, including hydrogen, which are flammable, toxic, or corrosive is regulated as set forth in Part 192. In addition, PHMSA has broad authority under the Pipeline Safety Act to address the safe transportation of gas (including blends of hydrogen gas and natural gas) through gas pipeline facilities, including the underground storage of such products.

**Question 2:** Are there blending ratios or concentration limits that PHMSA uses to delineate regulatory authority or jurisdiction?

**Response to question 2:** No. As discussed in the response to Question 1, PHMSA has authority under the Pipeline Safety Act to address the safe transportation by pipeline of any gas (or mixture of gases in any ratio) that meets the definition of “gas” at § 192.3.

You may be aware of PHMSA’s Research and Development program where work is underway related to hydrogen and many other areas that will inform near term improvements in safety practices and future rulemaking. Further information along with a searchable project database may be found at [Research & Development Program: Research & Development | Home \(dot.gov\)](https://www.phmsa.dot.gov/research-development).

If we can be of further assistance, please contact Alyssa Imam at 202-738-3850.

Sincerely,

John A. Gale  
Director, Office of Standards  
and Rulemaking

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<sup>1</sup> PHMSA, 85 FR 8104, “Pipeline Safety: Safety of Underground Natural Gas Storage Facilities,” (Feb. 12, 2020).

<sup>2</sup> As background, PHMSA’s regulation of interstate natural gas pipeline facilities is generally tied by the Pipeline Safety Act (*see, e.g.*, 49 U.S.C. § 60101(a)(6)(B)) to the jurisdiction of the Federal Energy Regulatory Commission (FERC) under the Natural Gas Act (15 U.S.C. 717 et seq.), and “natural gas” is broadly defined at 15 U.S.C § 717a as “... either natural gas unmixed, or any mixture of natural and artificial gas.” To the extent gases other than natural gas may also be present within an underground storage facility such that it would still be treated as an UNGSF under § 192.12, PHMSA would consider the jurisdiction of FERC in making a safety jurisdictional determination for an interstate facility.



Mr. John A. Gale  
Director  
Office of Standards and Rulemaking  
Pipeline and Hazardous Materials Safety Administration (PHMSA)  
Office of Pipeline Safety (PHP-30)  
U.S. Department of Transportation  
1200 New Jersey Avenue, SE  
Washington, DC 20590-0001

Dear Mr. Gale,

The Colorado Energy and Carbon Management Commission respectfully requests an interpretation on the following questions below:

- What is PHMSA's current position regarding the underground storage of natural gas and hydrogen blends?
- Are there blending ratios or concentration limits that PHMSA uses to delineate regulatory authority or jurisdiction?

Pursuant to the following rule,

§ 190.11 - Availability of informal guidance and interpretive assistance.

(a) ...

(b) Availability of written interpretations. A written regulatory interpretation, response to a question, or an opinion concerning a pipeline safety issue may be obtained by submitting a written request to the Office of Pipeline Safety (PHP-30), PHMSA, U.S. Department of Transportation, 1200 New Jersey Avenue SE., Washington, DC 20590-0001. The requestor must include his or her return address and should also include a daytime telephone number. Written requests should be submitted at least 120 days before the time the requestor needs a response.

Regards,  
Curtis Haverkamp, PE  
Subsurface Injection Coordinator  
Colorado Energy and Carbon Management Commission  
Cell Phone: 720.786.5560  
1120 Lincoln Street, Suite 801  
Denver, CO 80203  
[curtis.haverkamp@state.co.us](mailto:curtis.haverkamp@state.co.us)