

PHMSA Issues Final Rule for Underground Natural Gas Storage Facilities

On February 12, 2020, the Pipeline and Hazardous Materials Safety Administration (PHMSA or Agency) released a final rule establishing new safety standards and reporting requirements for underground natural gas storage (UNGS) facilities ([the Final Rule](#)). The Final Rule modifies regulations that PHMSA previously established in an [interim final rule \(IFR\)](#) to address a congressional mandate in the Protecting Our Infrastructure of Pipelines and Enhancing Safety Act of 2016 (PIPES Act).



The Final Rule follows the approach taken in the IFR by incorporating the provisions in two industry safety standards for UNGS facilities by reference but eliminates the requirement to treat the permissive elements of those standards as mandatory. The Final Rule also makes other changes to the IFR, many of which respond to issues raised in public comments, a petition for reconsideration filed by several industry trade organizations, and a petition for judicial review filed by the State of Texas in the U.S. Court of Appeals for the 5th Circuit. Additional information about the Final Rule, which takes effect on March 13, 2020, is provided below.

Revised Approach to Non-Mandatory Provisions of API RP 1170 and API RP 1171

The Final Rule eliminates what was arguably the most controversial aspect of the IFR, *i.e.* the requirement to treat the permissive elements of two industry standards as mandatory. In the 2016 IFR, PHMSA incorporated *API Recommended Practice 1170 Design and Operation of Solution-mined Salt Caverns Used for Natural Gas Storage (RP 1170)* and *Recommended Practice 1171 Functional Integrity of Natural Gas Storage in Depleted Hydrocarbon Reservoirs and Aquifer Reservoirs (RP 1171)* or RPs, collectively) by reference. Like most industry standards, the RPs contain provisions that create mandatory obligations (“shall” statements) and non-mandatory permissive obligations (“should” statements). The IFR treated the “should” statements in the RPs as mandatory “shall” statements, unless an operator included an adequate technical justification in its operation and maintenance procedures justifying a deviation. Numerous commenters challenged the appropriateness of the should-to-shall conversion, and PHMSA eliminated that provision in the Final Rule. Accordingly, the Final Rule no longer requires operators to treat the RP’s permissive provisions as mandatory.

Modifications to Integrity Management Requirements

Consistent with the FAQs that PHMSA issued for the IFR, the Final Rule codifies a requirement that UNGS operators meet specific integrity management (IM) program elements.

Establish an initial written framework: The IFR required UNGS operators with facilities constructed before July 18, 2017, to establish a framework for IM by January 18, 2018. The Final Rule prescribes the specific elements for that framework, which must include:

- A general discussion or definition of risk management;
- Data collection and integration;
- Threat and hazard identification and analysis;

CONTACT

JAMES CURRY

JCurry@babstcalland.com
202.853.3461

KEITH J. COYLE

KCoyle@babstcalland.com
202.853.3460

BRIANNE K. KURDOCK

BKurdock@babstcalland.com
202.853.3462

505 9th Street NW
Suite 700
Washington, DC 20004
202.853.3455

BABSTCALLAND.COM

- Risk assessment;
- Preventive and mitigative measures;
- Periodic review and reassessment; and
- Recordkeeping.

PHMSA also codified the required elements of an operator's IM plan. It must include:

- A plan for developing and implementing each program element;
- An outline of the procedures to be developed;
- Roles and responsibilities of UNGS facility staff assigned to develop and implement the procedures;
- A plan for training staff about the procedures and how they will be applied;
- Timelines for implementing each program element, including risk analyses and baseline risk assessments; and
- A plan for incorporating information gained from experience into the IM plan on a continuous basis.

Operators of depleted hydrocarbon or aquifer reservoirs constructed on or before July 18, 2017, must meet these enhanced IM requirements by March 13, 2021.

Extension of Section 8 of API RP 1171 to Solution-Mined Salt Caverns: The Final Rule extends the risk-management provisions of section 8 of RP 1171, previously only applicable to depleted hydrocarbon reservoirs and aquifer reservoirs, to solution-mined salt caverns. Under the IFR, operators of solution-mined salt caverns were subject to section 10 of RP 1170 to implement a "holistic and comprehensive approach to monitoring cavern integrity." The Final Rule continues this requirement but PHMSA also applies section 8 of RP 1171 to these facilities "to the extent that they apply to the physical characteristics and operations of solution-mined salt caverns." Operators of solution-mined salt cavern UNGS facilities must adopt and implement risk-management procedures by March 13, 2021.

Baseline risk assessments: PHMSA included the deadlines for baseline assessments from the FAQs in the Final Rule. Operators must complete baseline risk assessments of UNGS assets according to the following schedule.

- All reservoirs and caverns by March 13, 2024
- 40% of all wellbores, wellheads, and associated components, prioritized by highest risk by March 13, 2024
- The remaining 60% of wellbores, wellheads, and associated components by March 13, 2027

Periodic reassessments: Operators must conduct reassessments on a risk-based schedule, with a maximum reassessment period of seven years.

Recordkeeping: Operators must maintain records for the life of the UNGS facility in the same manner required by the IM programs for gas transmission pipelines, gas distribution systems, and hazardous liquid pipelines.

Reporting Requirements for UNGS Facilities

PHMSA clarified in the Final Rule that UNGS operators are not required to report routine maintenance activities to the Agency. Operators must notify PHMSA 60 days before new facility construction, all plugging and abandonment activities (regardless of cost), and construction or maintenance that requires a workover rig and costs \$200,000 or more for labor, materials, and operations. The Final Rule also adds an emergency exemption when 60 days' notice is not practicable. In this case, the operator must promptly respond to the emergency, notify the Agency as soon as practicable,

and document the emergency and any reason for the delay in notification.

Under the Final Rule, operators of a salt cavern UNGS facility must now file safety-related condition reports when any malfunction or operating error causes a UNGS facility's pressure to drop below its minimum allowable operating pressure. However, the Final Rule exempts operators from reporting safety-related conditions where a wellhead is isolated and the reservoir or cavern and all other components continue to operate normally without a pressure reduction.

Definition of Underground Natural Gas Storage Facilities

The Final Rule modifies the definition of "underground natural gas storage facility" to better demarcate the line between a UNGS facilities subject to the Final Rule and surface gas pipeline facilities that are subject to other sections of Part 192. First, PHMSA considers a UNGS facility "to include all components up to the valve assembly (and their flanges) that route gas at the wellhead to or from the connected pipeline(s)." Second, the Final Rule clarifies that UNGS facilities are subject only to 192.12.

The States' Role in Enforcing the UNGS Rule

The Final Rule affirms the well-established principle that states may impose additional requirements on intrastate facilities so long as the state has a certification with PHMSA and the additional requirements do not conflict with the federal safety standards.

Operations and Maintenance Procedural Requirements

The IFR required operators to include procedures for operations, maintenance, and emergency response and management for UNGS facilities in the operations and maintenance manuals required for natural gas pipelines (49 C.F.R. § 192.605). The Final Rule simplifies the procedural obligation by not requiring operators to include UNGS procedures in the gas pipeline manuals. The deadline to develop these procedures for existing facilities remains July 18, 2017. An UNGS operator must maintain records necessary to implement the procedures and review them every 15 months, but at least once every calendar year. Under the Final Rule, operators must keep UNGS facility procedure manuals accessible at locations where UNGS facility work will be performed.



JAMES CURRY



KEITH COYLE



BRIANNE KURDOCK

Led by three former Pipeline and Hazardous Materials Safety Administration (PHMSA) attorneys, our Pipeline and Hazardous Materials Safety practice group counsels pipeline and midstream companies, gas utilities, terminal operators, investors, trade associations, and other stakeholders, throughout the United States. James Curry, Keith Coyle and Brianne Kurdock together have more than 25 years of experience with a multitude of pipeline safety issues. They partner with client engineering and legal personnel to address day-to-day compliance questions and develop business and regulatory strategies.