



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials
Safety Administration**

840 Bear Tavern Road, Suite 300
West Trenton, NJ 08628
609.771.7800

NOTICE OF AMENDMENT

OVERNIGHT EXPRESS DELIVERY

April 21, 2022

Mr. Pierce Norton
President and Chief Executive Officer
ONEOK Texas Gas Storage, LLC
100 West Fifth Street
Tulsa, Oklahoma 74103

CPF 1-2022-043-NOA

Dear Mr. Norton:

From August 31, 2021 through September 3, 2021, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected ONEOK Texas Gas Storage LLC's (ONEOK) procedures for its Underground Natural Gas Facility (UNGFS) Program in Gaines County, Texas.

On the basis of the inspection, PHMSA has identified the apparent inadequacies found within ONEOK's plans or procedures, as described below:

1. § 192.12 Underground natural gas storage facilities.

(a) ...

(c) *Procedural manuals.* Each operator of a UNGSF must prepare and follow for each facility one or more manuals of written procedures for conducting operations, maintenance, and emergency preparedness and response activities under paragraphs (a) and (b) of this section. Each operator must keep records necessary to administer such procedures and review and update these manuals at intervals not exceeding 15 months, but at least once each calendar year. Each operator must keep the appropriate parts of these manuals accessible at locations where UNGSF work is being performed. Each operator must have written procedures in place before commencing operations or beginning an activity not yet implemented.

ONEOK's written procedures for conducting operations, maintenance and emergency preparedness and response activities were inadequate to ensure safe operation of a pipeline facility. Specifically, ONEOK's UNGS Surface Casing Pressure Monitoring Procedure did not include a process to evaluate each annular gas occurrence that exceeds operator-defined threshold levels in accordance with API RP 1171, Section 9.3.2, Well Integrity Monitoring (Section 9.3.2).

Section 9.3.2 states in part, "[t]he operator shall evaluate each annular gas occurrence that exceeds operator- or regulatory-defined threshold levels determined from well integrity evaluation and from risk assessment."

During the inspection, PHMSA reviewed ONEOK's UNGS Surface Casing Pressure Monitoring Procedure, Section 4.3, Data Analysis and found that it did not include a process to evaluate each annular gas occurrence that exceeds operator-defined threshold levels.

Therefore, ONEOK's written procedures required by § 192.12(c) were inadequate. ONEOK must revise its procedure to address the deficiency outlined above.

2. § 192.12 Underground natural gas storage facilities.

(a) ...

(c) *Procedural manuals.* Each operator of a UNGSF must prepare and follow for each facility one or more manuals of written procedures for conducting operations, maintenance, and emergency preparedness and response activities under paragraphs (a) and (b) of this section. Each operator must keep records necessary to administer such procedures and review and update these manuals at intervals not exceeding 15 months, but at least once each calendar year. Each operator must keep the appropriate parts of these manuals accessible at locations where UNGSF work is being performed. Each operator must have written procedures in place before commencing operations or beginning an activity not yet implemented.

ONEOK's written procedures for conducting operations, maintenance, and emergency preparedness and response activities were inadequate to ensure safe operation of a pipeline facility. Specifically, ONEOK's Management of Change (MOC) procedures did not include a process for operating personnel to be notified of changes or to be trained, and the training documented, whenever changes are made to the operating procedures in accordance with API RP 1171, Section 11.12.2, O&M Personnel (Section 11.12.2).

Section 11.12.2 states in part, "[w]henever changes are made to the operating procedures specified in 11.3, operating personnel shall be notified and trained as necessary in the changes and training documented before operating storage wells and reservoirs."

During the inspection, PHMSA reviewed ONEOK's MOC procedures and found that a process for notifying and training operating personnel whenever changes are to be made to the operating procedures was not included.

Therefore, ONEOK's written procedures required by § 192.12(c) were inadequate. ONEOK must revise its procedure to address the deficiency outlined above.

3. § 192.12 Underground natural gas storage facilities.

(a) ...

(c) *Procedural manuals.* Each operator of a UNGSF must prepare and follow for each facility one or more manuals of written procedures for conducting operations, maintenance, and emergency preparedness and response activities under paragraphs (a) and (b) of this section. Each operator must keep records necessary to administer such procedures and review and update these manuals at intervals not exceeding 15 months, but at least once each calendar year. Each operator must keep the appropriate parts of these manuals accessible at locations where UNGSF work is being performed. Each operator must have written procedures in place before commencing operations or beginning an activity not yet implemented.

ONEOK's written procedures for conducting operations, maintenance, and emergency preparedness and response activities were inadequate to ensure safe operation of a pipeline facility. Specifically, ONEOK's Reservoir Storage Integrity Management Plan (RSIMP), Section 7.5.2.2, Well Integrity Maintenance, did not include procedures for function testing surface safety valves or refer to manufacturer's recommendations in accordance with API RP 1171, Section 9.3.2 (Section 9.3.2).

Section 9.3.2 states in part, "[s]urface and subsurface safety valve systems, where installed, shall be function-tested at least annually. The tests shall be conducted in accordance with manufacturer's recommendations and the operator's procedures."

PHMSA reviewed ONEOK's RSIMP, and found that Section 7.5.2.2 stated "[a]nnual function testing of safety valve systems, surface and subsurface, and manually reopened at site after test" but it did not include the procedures to be used to perform the tests or reference the manufacturer's recommendations.

Therefore, ONEOK's written procedures required by § 192.12(c) were inadequate. ONEOK must revise its procedure to address the deficiency outlined above.

4. § 192.12 Underground natural gas storage facilities.

(a) ...

(d) Integrity management program--

(1) ...

(4) Integrity management procedures and recordkeeping. Each UNGSF operator must establish and follow written procedures to carry out its integrity management program under API RP 1171 (incorporated by reference, see § 192.7), section 8 ("Risk Management for Gas Storage Operations"), and this paragraph (d). The operator must also maintain, for the useful life of the UNGSF, records that

demonstrate compliance with the requirements of this paragraph (d). This includes records developed and used in support of any identification, calculation, amendment, modification, justification, deviation, and determination made, and any action taken to implement and evaluate any integrity management program element.

ONEOK's written procedures for carrying out its integrity management program were inadequate to ensure safe operation of a pipeline facility. Specifically, ONEOK's UNGS Risk Management Plan (RMP), Section 4.6.2, Preventative and Mitigative Measures (Section 4.6.2) and Section 4.6.3, Methodology (Section 4.6.3) restated the language in API RP 1171 but did not include details about the preventative and mitigative measures that were to be used to manage risk in accordance with API RP 1171, Section 8.6.2, Methodology (Section 8.6.2).

Section 8.6.2 states in part, "[t]he operator shall develop P&M measures to manage risks."

During the inspection, PHMSA reviewed ONEOK's UNGS RMP, Section 4.6.2 and Section 4.6.3 and found that they restated the API RP 1171 language, and thus failed to include a process for development of P&M measures needed to manage risk.

Therefore, ONEOK's written procedures required by § 192.12(d)(4) were inadequate. ONEOK must revise its procedure to address the deficiency outlined above.

5. § 192.12 Underground natural gas storage facilities.

(a) ...

(d) Integrity management program--

(1) ...

(4) Integrity management procedures and recordkeeping. Each UNGSF operator must establish and follow written procedures to carry out its integrity management program under API RP 1171 (incorporated by reference, see § 192.7), section 8 ("Risk Management for Gas Storage Operations"), and this paragraph (d). The operator must also maintain, for the useful life of the UNGSF, records that demonstrate compliance with the requirements of this paragraph (d). This includes records developed and used in support of any identification, calculation, amendment, modification, justification, deviation, and determination made, and any action taken to implement and evaluate any integrity management program element.

ONEOK's written procedures for carrying out its integrity management program were inadequate to ensure safe operation of a pipeline facility. Specifically, ONEOK's UNGS Risk Management Plan (RMP), Section 4.3.2, Methodology, did not include a process to assess threat and hazard interactions in accordance with API RP 1171, Section 8.3.2 (Section 8.3.2).

Section 8.3.2 states in part:

The operator shall use available information such as performance data collected through the field history, operations and maintenance (O&M) activities, geotechnical data such as

well logs, engineering data, and completion reports to determine susceptibility to threat and hazard-related events and to assess threat and hazard interaction.

PHMSA reviewed ONEOK's RMP, and found that Section 4.3.2 stated "[O]NEOK will assess the potential threat/hazard interaction, such as the relationship of the Threat of casing damage during well drilling or service work that could exacerbate the corrosion process." but it did not include a process to assess interactions of threats and hazards specific to its UNGSFs.

Therefore, ONEOK's written procedures required by § 192.12(d)(4) were inadequate. ONEOK must revise its procedure to address the deficiency outlined above.

6. § 192.12 Underground natural gas storage facilities.

(a) ...

(d) Integrity management program--

(1) ...

(4) Integrity management procedures and recordkeeping. Each UNGSF operator must establish and follow written procedures to carry out its integrity management program under API RP 1171 (incorporated by reference, see § 192.7), section 8 ("Risk Management for Gas Storage Operations"), and this paragraph (d). The operator must also maintain, for the useful life of the UNGSF, records that demonstrate compliance with the requirements of this paragraph (d). This includes records developed and used in support of any identification, calculation, amendment, modification, justification, deviation, and determination made, and any action taken to implement and evaluate any integrity management program element.

ONEOK's written procedures for carrying out its integrity management program were inadequate to ensure safe operation of a pipeline facility. Specifically, ONEOK's Reservoir Storage Integrity Management Plan (RSIMP) did not include the timeline requirement for completing baseline risk assessments in accordance with § 192.12(d)(2)¹.

During the inspection, PHMSA reviewed ONEOK's RSIMP and found that it did not address the baseline risk assessment timeline requirements outlined in § 192.12(d)(2).

¹ § 192.12 Underground natural gas storage facilities.

(a) ...

(d)

(1) ...

(2) Integrity management baseline risk-assessment intervals.

No later than March 13, 2024, each UNGSF operator must complete the baseline risk assessments of all reservoirs and caverns, and at least 40% of the baseline risk assessments for each of its UNGSF wells (including wellhead assemblies), beginning with the highest-risk wells, as identified by the risk analysis process. No later than March 13, 2027, an operator must complete baseline risk assessments on all its wells (including wellhead assemblies). Operators may use prior risk assessments for a well as a baseline (or part of the baseline) risk assessment in implementing its initial integrity management program, so long as the prior assessments meet the requirements of API RP 1171 (incorporated by reference, see § 192.7), section 8, and continue to be relevant and valid for the current operating and environmental conditions. When evaluating prior risk-assessment results, operators must account for the growth and effects of indicated defects since the time the assessment was performed.

Therefore, ONEOK's written procedures required by § 192.12(d)(4) were inadequate. ONEOK must revise its procedure to address the deficiency outlined above.

Response to this Notice

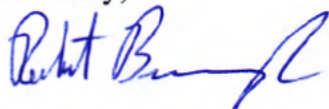
This Notice is provided pursuant to 49 U.S.C. § 60108(a) and 49 C.F.R. § 190.206. Enclosed as part of this Notice is a document entitled Response Options for Pipeline Operators in Enforcement Proceedings.

Please refer to this document and note the response options. Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. 552(b), along with the complete original document you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and an explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. 552(b).

Following the receipt of this Notice, you have 30 days to submit written comments, revised procedures, or a request for a hearing under §190.211. If you do not respond within 30 days of receipt of this Notice, this constitutes a waiver of your right to contest the allegations in this Notice and authorizes the Associate Administrator for Pipeline Safety to find facts as alleged in this Notice without further notice to you and to issue an Order Directing Amendment. If your plans or procedures are found inadequate as alleged in this Notice, you may be ordered to amend your plans or procedures to correct the inadequacies (49 C.F.R. § 190.206). If you are not contesting this Notice, we propose that you submit your amended procedures to my office within 30 days of receipt of this Notice. This period may be extended by written request for good cause. Once the inadequacies identified herein have been addressed in your amended procedures, this enforcement action will be closed.

It is requested (not mandated) that ONEOK Texas Gas Storage LLC maintain documentation of the safety improvement costs associated with fulfilling this Notice of Amendment (preparation/revision of plans, procedures) and submit the total to Robert Burrough, Director, Eastern Region, Pipeline and Hazardous Materials Safety Administration, 840 Bear Tavern Road, Suite 300, West Trenton, NJ 08628. In correspondence concerning this matter, please refer to **CPF 1-2022-043-NOA** and, for each document you submit, please provide a copy in electronic format whenever possible. Smaller files may be emailed to robert.burrough@dot.gov. Larger files should be sent on USB flash drive accompanied by the original paper copy to the Eastern Region Office.

Sincerely,



Robert Burrough
Director, Eastern Region
Pipeline and Hazardous Materials Safety Administration

Enclosure: Response Options for Pipeline Operators in Enforcement Proceedings