



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

VIA ELECTRONIC MAIL TO: Eric.Ormond@crestwoodlp.com

April 20, 2021

Mr. Eric Ormond
VP, Engineering & Project Management
Tres Palacios Gas Storage LLC
811 Main Street
Houston, Texas 77002

CPF 1-2021-012-NOA

Dear Mr. Ormond:

From July 14-16, 2020, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code (U.S.C.) inspected Tres Palacios Gas Storage LLC's (TPGS) procedures¹ for the Tres Palacios Gas Storage facility in Markham, Texas.

On the basis of the inspection, PHMSA has identified the apparent inadequacies found within TPGS'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

¹ Tres Palacios Gas Storage, LLC is a subsidiary of Crestwood Midstream Partners, LP and uses Crestwood's procedures.

or beginning an activity not yet implemented.

TPGS's written procedures for conducting operations, maintenance, and emergency preparedness and response activities under §192.12(a)(3) were inadequate. Specifically, TPGS's *UNGS OM* did not describe its operation and maintenance (O&M) processes in detail in accordance with API RP 1170, Section 9.7.1 Procedures (Section 9.7.1).

Section 192.12(a)(3) states in relevant part, for operators that use a solution-mined salt cavern for natural gas storage, constructed on or before July 18, 2017, to meet the provisions of API RP 1170 (incorporated by reference, *see* §192.7), section 9, by January 18, 2018.

Section 9.7.1 states in relevant part:

All operators shall have or develop operation and maintenance (O&M) procedures. These procedures should allow for the safe operation and necessary maintenance of the wellhead and cavern to ensure integrity. Operators should have specific procedures for caverns and wellheads that include routine operation and maintenance guidelines as well as workover and emergency procedures.

At the time of the inspection, TPGS's *UNGS OM* did not describe the O&M processes with specificity. Procedures presented to PHMSA at the time only re-stated the requirements of API RP 1170. Therefore, TPGS's procedures lacked details to thoroughly describe the O&M processes used to maintain ongoing functional integrity of the storage facility. TPGS must revise its procedures to include detailed O&M procedures.

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.

TPGS's written procedures for conducting operations, maintenance, and emergency preparedness and response activities under § 192.12(a)(3) were inadequate. Specifically, TPGS's *OM S2.29.1* procedures did not describe the process it uses to establish a maximum and minimum storage operating pressure, or its process for converting maximum and minimum pressure at a casing seat to a maximum and minimum wellhead pressure, in accordance with API RP 1170, Section 9.1-*Minimum and Maximum Operating Limits* (Section 9.1).

As noted above, § 192.12(a)(3) requires operators that use a solution-mined salt cavern for natural gas storage, constructed on or before July 18, 2017, to meet the provisions of API RP 1170 (incorporated by reference, *see* §192.7), section 9, by January 18, 2018.

Section 9.1 states in relevant part:

Maximum storage operating pressures shall be established by the operator.

...

The operator shall then convert the maximum and minimum pressure at the casing seat to a maximum and minimum wellhead pressure if the wellhead is the monitoring point of record.

At the time of the inspection, TPGS's procedures restated Section 9.1 but did not describe the processes that TPGS uses to establish a maximum and minimum storage operating pressure or its process for converting casing seat pressures to wellhead pressures. TPGS must revise its procedures to include its processes for complying with API RP 1170 Section 9.1, in accordance with § 192.12(a)(3).

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.

TPGS's written procedures for conducting operations, maintenance, and emergency preparedness and response activities under §192.12(a)(3) were inadequate. Specifically, TPGS does not have detailed procedures to describe its evaluation process for the applicability of integrity monitoring methods in accordance with API RP 1170, Section 10.4 - *Review of Integrity Monitoring Methods* (Section 10.4).

As noted above, § 192.12(a)(3) requires operators that use a solution-mined salt cavern for natural gas storage, constructed on or before July 18, 2017, to meet the provisions of API RP 1170 (incorporated by reference, *see* §192.7), section 10, by January 18, 2018.

Section 10.4 states in relevant part:

Table 1 lists monitoring methods currently in use by salt cavern operators. Each operator shall evaluate these methods for applicability and inclusion in their Integrity Monitoring Program. These methods are found in Annex B.

At the time of the inspection, TPGS's procedures did not describe the evaluation processes for integrity monitoring methods in detail. Therefore, TPGS did not develop evaluation processes for integrity monitoring methods as required by Section 10.4. TPGS must revise its procedures to include details on its integrity monitoring methods.

4. § 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.

TPGS's written procedures for conducting operations, maintenance, and emergency preparedness and response activities under §192.12(a)(3) were inadequate. Specifically, TPGS's *UNGS OM* procedures did not describe the process for Lockout and Tagout (LOTO) operations in accordance with API RP 1170, Section 9.6.8 - *Lockout and Tagout Systems* (Section 9.6.8).

As stated above, § 192.12(a)(3) requires operators that use a solution-mined salt cavern for natural gas storage, constructed on or before July 18, 2017, to meet the provisions of API RP 1170 (incorporated by reference, *see* §192.7), section 9, by January 18, 2018.

Section 9.6.8 states in part:

Lockout and tagout (LOTO) systems shall be used at storage facilities to protect workers from hazardous energy sources. A LOTO procedure shall be developed for each cavern wellhead to allow for calibration, maintenance and workovers.

At the time of the inspection, TPGS's procedures did not include LOTO procedures, as required by Section 9.6.8. TPGS must amend its procedures to include LOTO procedures.

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 Tres Palacios 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, PHMSA Eastern Region, 840 Bear Tavern Road, Suite 300, West Trenton, NJ 08628. Please refer to **CPF 1-2021-012-NOA** on each document you submit, and whenever possible provide a signed PDF copy in electronic format. 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.

Additionally, if you choose to respond to this (or any other case), please ensure that any response letter pertains solely to one CPF case number.

Sincerely,

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

Enclosure: *Response Options for Pipeline Operators in Enforcement Proceedings*