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

March 27, 2020

Mr. Richard Keyser
Senior Vice President of Operations
Texas Gas Transmission, LLC
9 Greenway Plaza, Suite 2800
Houston, TX 77046

CPF 1-2020-1009M

Dear Mr. Keyser:

From March 25 – 28, 2019, June 3 – 6, 2019, and August 27 – 29, 2019, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), pursuant to Chapter 601 of 49 United States Code (U.S.C.), inspected Texas Gas Transmission, LLC's (TGT) underground natural gas storage field records and procedures for the Graham Lake, Leesville, Midland, and West Greenville storage fields in Muhlenberg County, Kentucky and Lawrence County, Indiana.

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

1. **§ 192.12 Underground natural gas storage facilities.**

   (a) ....

   (e) Operators of underground gas storage facilities must establish and follow written procedures for operations, maintenance, and emergencies implementing the requirements of API RP 1170 and API RP 1171, as required under this section, including the effective dates as applicable, and incorporate such procedures into their written procedures for operations, maintenance, and emergencies established pursuant to § 192.605.[1]

[1] The final rule, Pipeline Safety: Safety of Underground Natural Gas Storage Facilities, 85 FR 8104 (February 12, 2020), revised § 192.12. The requirement cited in this Notice of Amendment is still present but is now codified in § 192.12(c).

TGT's written procedures for implementing the requirements of API RP 1171 were inadequate. Specifically, TGT's procedures did not address how it would assess threat and hazard interaction in their Risk Model, as required by API RP 1171, Section 8.3.2 Data Sources (Section 8.3.2).

Section 8.3.2 states:

> 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.

At the time of the inspections, TGT's procedures failed to demonstrate how the threat and hazard interaction requirement was addressed in their Risk Management Model as required by Section 8.3.2.

2. § 192.12 Underground natural gas storage facilities.

(a) ....

(e) Operators of underground gas storage facilities must establisb and follow written procedures for operations, maintenance, and emergencies implementing the requirements of API RP 1170 and API RP 1171, as required under this section, including the effective dates as applicable, and incorporate such procedures into their written procedures for operations, maintenance, and emergeneies established pursuant to § 192.605.

TGT's written procedures for implementing the requirements of API RP 1171 were inadequate. Specifically, TGT's procedures did not address how the effectiveness of their Risk Management plan would be determined, as required by API RP 1171, Section 8.7.1 Periodic Assessment and Review (Section 8.7.1).

Section 8.7.1 states in part:

> The operator shall assess the effectiveness of risk monitoring and risk management programs and maintain a continual review and improvement cycle in risk management activities to provide functional integrity of the storage operation. The interval of review and reassessment should be short enough to identify operational and monitoring trends and measure the effectiveness of P&M measures, but long enough that the data and information that can be brought into the analysis are meaningful.

At the time of the inspections, TGT's procedures failed to address how the effectiveness of their Risk Management plan would be determined in accordance with Section 8.7.1.

3. § 192.12 Underground natural gas storage facilities.

(a) ....

> **(e) Operators of underground gas storage facilities must establish and follow written procedures for operations, maintenance, and emergencies implementing the requirements of API RP 1170 and API RP 1171, as required under this section, including the effective dates as applicable, and incorporate such procedures into their written procedures for operations, maintenance, and emergencies established pursuant to § 192.605.**

TGT's written procedures for implementing the requirements of API RP 1171 were inadequate. Specifically, TGT's procedures failed to address annular gas monitoring requirements for its monitor wells that do not have any taps on their annulus. Furthermore, TGT also failed to establish procedures to evaluate any occurrence of annular gas that exceeds the established threshold level, as required by API RP 1171, Section 9.3.2 Well Integrity Monitoring (Section 9.3.2).

Section 9.3.2 states in part:

> The operator shall monitor for presence of annular gas by measuring and recording annular pressure and/or annular gas flow. The operator shall evaluate each annular gas occurrence that exceeds operator - or regulatory-defined threshold levels determined from well integrity evaluation and from risk assessment.

At the time of the inspections, TGT procedures failed to address the requirements of API RP 1171, Section 9.3.2. TGT could not provide a procedure to evaluate annulus pressure or flow for wells in multiple storages that do not have any annulus taps. TGT also could not demonstrate that they had procedures to address any exceedance of threshold pressure on the annulus. Finally, TGT could not produce documentation showing they had evaluated the one exceedance of their defined thresholds at the Midland Storage Facility.

4. § 192.12 Underground natural gas storage facilities.

> **(a) ....**
>
> **(e) Operators of underground gas storage facilities must establish and follow written procedures for operations, maintenance, and emergencies implementing the requirements of API RP 1170 and API RP 1171, as required under this section, including the effective dates as applicable, and incorporate such procedures into their written proeedures for operations, maintenance, and emergencies established pursuant to § 192.605.**

TGT's written procedures for implementing the requirements of API RP 1171 were inadequate. Specifically, TGT failed to establish procedures that required data gathering of pressures and volumes to determine the integrity of the Midland and Leesville storage fields for 2018, in accordance with Section 8.3.2.

Section 8.3.2 Data Sources 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.

At the time of the inspection, TGT had not established adequate procedures regarding data gathering for the Midland and Leesville Storages to prove adequacy of the integrity of the storage facility for that year. The wells in these two storages did not have taps that would allow the gathering of the required information. TGT had not develop a procedure to remedy this issue, nor had it developed additional Preventative and Mitigative (P&M) measures to ensure well integrity until taps are available.

5. § 192.12 Underground natural gas storage facilities.

(a) ....

(e) Operators of underground gas storage facilities must establish and follow written procedures for operations, maintenance, and emergencies implementing the requirements of API RP 1170 and API RP 1171, as required under this section, including the effective dates as applicable, and incorporate such procedures into their written procedures for operations, maintenance, and emergencies established pursuant to § 192.605.

TGT's written procedures for implementing the requirements of API RP 1171 were inadequate. Specifically, TGT's Storage Integrity Program procedures did not include a process for data gathering and assessing plugged and abandoned third-party wells in accordance with Section 8.3.2.

At the time of the inspection, TGT's written Storage Integrity Program procedures failed to address data gathering and assessing plugged and abandoned third-party wells.

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 Texas Gas Transmission, 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 1-2020-1009M** 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*