



U.S. Department
of Transportation
**Pipeline and Hazardous
Materials Safety Administration**

901 Locust Street, Suite 480
Kansas City, MO 64106

**NOTICE OF PROBABLE VIOLATION
PROPOSED CIVIL PENALTY
and
PROPOSED COMPLIANCE ORDER**

VIA ELECTRONIC MAIL TO: stan.horton@bwpipelines.com, and
tina.baker@bwpipelines.com

January 21, 2022

Stanley C. Horton
CEO Boardwalk Pipelines
Texas Gas Transmission, LLC
9 Greenway Plaza, Suite 2800
Houston, TX 77066

CPF 3-2022-019-NOPV

Dear Mr. Horton:

From February 5th, 2020 to February 9th, 2021, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), pursuant to Chapter 601 of 49 United States Code (U.S.C.) inspected facilities and records of your subsidiary, Texas Gas Transmission, LLC's (Texas Gas or Operator) natural gas pipeline systems in Arkansas, Illinois, Indiana, Kentucky, Louisiana, Mississippi, Texas, Ohio, and Tennessee.

As a result of the inspection, it is alleged that you have committed probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations (CFR). The items inspected and the probable violations are:

1. **§ 192.481 Atmospheric corrosion control: Monitoring.**
(a) Each operator must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows:

If the pipeline is located:	Then the frequency of inspection is:
Onshore	At least once every 3 calendar years, but with intervals not exceeding 39 months
Offshore	At least once each calendar year, but with intervals not exceeding 15 months

Texas Gas failed to inspect each onshore pipeline or portion of onshore pipeline that is exposed to atmosphere for evidence of atmospheric corrosion at least once every 3 calendar years, but with intervals not exceeding 39 months. During the 2020 inspection Texas Gas self-reported a noncompliance in 2018 that resulted in atmospheric inspections being conducted 3 months beyond the allowed 39 month interval in the Midland area for their storage field and compressor station.

2. **§ 192.481 Atmospheric corrosion control: Monitoring.**
(a)
(b) During inspections the operator must give particular attention to pipe at soil-to-air interfaces, under thermal insulation, under disbonded coatings, at pipe supports, in splash zones, at deck penetrations, and in spans over water.

Texas Gas failed to give particular attention to pipe at soil-to-air interfaces during atmospheric inspections at two compressor stations. During the field inspection it was noted that pipe penetrating the concrete foundation walls at both Petersburg Station and Covington Station could not be visually inspected because the pipe was embedded within the concrete wall. Accordingly, the atmospheric inspections at these locations were inadequate to ensure the pipe was inspected at places where the pipe is penetrating the foundation.

3. **§ 192.603 General provisions.**
(a)
(b) Each operator shall keep records necessary to administer the procedures established under § 192.605.

Texas Gas failed to keep records of maintenance activities required by its operations and maintenance procedures. During the onsite inspection at the Oaktown and Wilfred operating areas, PHMSA requested to review records related to Texas Gas Operations and Maintenance (O&M) procedure Section 3010 “Event Response Plan” subsection “Emergency Preparedness”, which states: “Emergency equipment shall be periodically

inspected and maintained in good operating condition.” Texas Gas did not provide records demonstrating that inspection and maintenance activities were conducted to ensure that emergency equipment was in good operating condition.

4. **§ 192.605 Procedural manual for operations, maintenance, and emergencies.**
(a) General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response. For transmission lines, the manual must also include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least one each calendar year. This manual must be prepared before operations of a pipeline system commence. Appropriate parts of the manual must be kept at locations where operations and maintenance activities are conducted.

Texas Gas failed to follow its procedural manual for operations, maintenance, and emergencies. Texas Gas failed to originate or start the test of the emergency shutdown devices (ESD) from a different source every time the ESD system was tested. Specifically, Texas Gas’s O&M procedure Section 9030 entitled “Emergency Shutdown Devices”, states in subsection entitled “Procedures” that ESDs “should be started or originated from a difference source (push button, gas detector, fire detector, or any other way to activate the ESD) every time the ESD system is tested.”

From a review of records, it was found that Texas Gas initiated the test from the same source for two consecutive years in the following instances:

Location	Source (test station)	Inspection years
Bastrop Station	ESD test station #3	2017-2018
Clarksdale Station	ESD button “S-1”	2017-2018
Guthrie Station	Control Building ESD	2018-2019

5. **§ 192.605 Procedural manual for operations, maintenance, and emergencies.**
(a) General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response. For transmission lines, the manual must also include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least once each calendar year. This manual must be prepared before operations of a pipeline system commence. Appropriate parts of the manual must be kept at locations where operations and maintenance activities are conducted.

Texas Gas failed to follow its O&M procedure for the inspection of its gas detectors at the Dillsboro compressor station. Section 192.605(b) requires operators to include in the O&M manual procedures for “operating, maintaining, and repairing the pipeline in accordance with each of the requirements of this subpart and subpart M of this part.” Under subpart M, § 192.736(c) requires that “each gas detection and alarm system required by this section must be maintained to function properly. The maintenance must include performance tests.” Section 192.736 specifically applies to gas detection at compressor stations.

Texas Gas’ O&M procedure Section 9040 requires each compressor station gas detection system to be functionally tested annually, not to exceed 15 months. However, Texas Gas did not have any 2017 inspection records for the gas detectors associated with engines 1, 2, 3, 9, and 10 at its Dillsboro compressor station. The gas detectors for these engines were not re-inspected until 2018. On April 21, 2020, Texas Gas stated in response to the finding of lack of inspection: “Engines not available to perform annual Gas Detection inspections due to maintenance in 2017.” Although the engines were out of service for part of 2017, the annual maintenance must still be performed because the units were returned to service.

6. **§ 192.605 Procedural manual for operations, maintenance, and emergencies.**
(a)
(b) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following, if applicable, to provide safety during maintenance and operations.
(1)
(8) Periodically reviewing the work done by operator personnel to determine the effectiveness and adequacy of the procedures used in normal operation and maintenance and modifying the procedures when deficiencies are found.

Texas Gas failed to determine the effectiveness and adequacy of its procedures based on a review of work performed during normal operations by its personnel. During the inspection PHMSA requested to review documentation relating to review of work

performed for various procedures as required by Texas Gas procedure *O&M Section 1010 "General Procedures"*. In response Texas Gas submitted Form 1000-20: *Compliance Manual Effectiveness Review* from the annual review for 2017, 2018, and 2019, however, the forms failed to document any assessment of work performed as part of the operations and maintenance procedures. Texas Gas was therefore unable to present adequate information showing that it had periodically reviewed its procedures for effectiveness based consideration of the work performed by its personnel, and is in violation of the regulation.

7. **§ 192.619 Maximum allowable operating pressure: Steel or plastic pipelines.**
(a) No person may operate a segment of steel or plastic pipeline at a pressure that exceeds a maximum allowable operating pressure (MAOP) determined under paragraph (c), (d), or (e) of this section, or the lowest of the following:
(1) The design pressure of the weakest element in the segment, determined in accordance with subparts C and D of this part. However, for steel pipe in pipelines being converted under § 192.14 or uprated under subpart K of this part, if any variable necessary to determine the design pressure under the design formula (§ 192.105) is unknown, one of the following pressures is to be used as design pressure:

Texas Gas operated a segment of steel pipeline at a pressure that exceeded the maximum allowable operating pressure (MAOP) established by the design pressure of the weakest element in the segment. Operational and Supervisory Control and Data Acquisition (SCADA) records documented that from March 4, 2016 to September 27, 2017, the Hymera Delivery Meter Station (DMS) operated with a MAOP that exceeded the design pressures of two Water, Oil, Gas (WOG) valve assemblies rated for 500 psig. On June 21st, 2016, the Hymera DMS operated at a pressure of 931.5 psig, which exceeded the design pressure of the WOG valves by 431.5 psig.

8. **§ 192.619 Maximum allowable operating pressure: Steel or plastic pipelines.**
(a) No person may operate a segment of steel or plastic pipeline at a pressure that exceeds a maximum allowable operating pressure determined under paragraph (c) or (d) of this section, or the lowest of the following:
(1) The design pressure of the weakest element in the segment, determined in accordance with subparts C and D of this part. However, for steel pipe in pipelines being converted under § 192.14 or uprated under subpart K of this part, if any variable necessary to determine the design pressure under the design formula (§ 192.105) is unknown, one of the following pressures is to be used as design pressure:
(i)
(ii) If the pipe is 12¾ inches (324 mm) or less in outside diameter and is not tested to yield under this paragraph, 200 p.s.i. (1379 kPa) gage.

Texas Gas determined a MAOP that exceeded the lowest pressure allowed under § 192.619 for its Bowling Green 4" Station. From a review of records that established the

Bowling Green MAOP, PHMSA identified that the station was uprated to an MAOP of 715 psig within a Class 1 location in 1977 according to 192 Subpart K requirements, specifically § 192.555(d)(2). Additionally, the uprate documentation did not include the pipe grade or recorded strength test after construction. At the time of the inspection, the class location of the Bowling Green station was Class 3. As such, the MAOP cannot be established under § 192.555(d)(2). Per OPS Advisory Bulletin – 1971-71-1, pipelines in Class 2, 3, or 4 locations must have their operating pressures confirmed or revised in accordance with § 192.611. PHMSA identified that the MAOP did not reflect the limits required by § 192.619(a)(1)(ii), which is a maximum of 200 psig.

9. § 192.705 Transmission lines: Patrolling.

(a)

(c) Methods of patrolling include walking, driving, flying or other appropriate means of traversing the right-of-way.

Texas Gas failed to adequately patrol the right-of-way (ROW) on its GRK pipeline segment crossing the Natchez Forest near Kosciusko, Mississippi. Records reviewed and interviews with field personnel demonstrated that only aerial patrols were utilized for the Natchez Forest ROW for 2017, 2018, and 2019. Approximately a 0.70 mile segment of the GRK pipeline under the Natchez Forest was installed via bore in 2008 because the ROW could not be cleared. The Natchez Forest has tree canopy over the ROW that inhibits the ability to evaluate the surface conditions from the air. Accordingly, aerial patrol alone was an inadequate means of traversing the ROW of the Natchez Forest segment.

On October 23, 2020, Texas Gas conducted a visual leak survey foot patrol on its GRK pipeline segment crossing the Natchez Forest and provided documentation to PHMSA on March 25, 2021.

10. § 192.706 Transmission lines: Leakage surveys.

Leakage surveys of a transmission line must be conducted at intervals not exceeding 15 months, but at least once each calendar year. However, in the case of a transmission line which transports gas in conformity with § 192.625 without an odor or odorant, leakage surveys using leak detector equipment must be conducted-

Texas Gas failed to adequately survey its ROW for leaks. Specifically, Texas Gas utilized aerial patrols for indications of dead vegetation to locate leaks in 2017, 2018, and 2019. These patrols were performed in Indiana and Kentucky during winter months (February and March) when vegetation was dormant and dead areas cannot be detected. Texas Gas survey records showed that aerial surveys using visual indicators in vegetation were the sole means of surveying for leaks for 310 miles in Class 1 and 2 locations in the following areas: Dillsboro, Jeffersontown, Hardinsburg, and Leesville. Accordingly, the surveys were inadequate and therefore Texas Gas is in violation of the regulation.

11. **§ 192.706 Transmission lines: Leakage surveys.**
Leakage surveys of a transmission line must be conducted at intervals not exceeding 15 months, but at least once each calendar year. However, in the case of a transmission line which transports gas in conformity with § 192.625 without an odor or odorant, leakage surveys using leak detector equipment must be conducted-
(a) In Class 3 locations, at intervals not exceeding 7 1/2 months, but at least twice each calendar year;

Texas Gas failed to conduct leakage surveys on Class 3 transmission lines that transported gas without an odor or odorant using leak detector equipment. During the inspection PHMSA observed Texas Gas personnel using improper leak detectors for leakage surveys. Per PHMSA's request, Texas Gas subsequently provided records of five separate devices that were in use that were not designed for detecting leaks from underground pipe. From a review of manufacturer design specifications for these detectors, PHMSA found that these devices were designed for detection of leaks in above-ground pipe or for higher concentrations of gas to detect hazardous or explosive atmospheres to ensure personnel safety. Additionally, Texas Gas' own personnel acknowledged that the instruments in use were not appropriate for leak detection on the right of way.

From 2017 to 2020 the following improper detectors were used: TIF 8800X, MSA Altair 4X, Gas Trac NGX-6, Sperian Multipro, and Leakator. These instruments were found to have been used in the following Texas Gas locations: Jeffersontown, Hardinsburg, Leesville, Dillsboro, Bowling Green, Calvert City, Petersburg, West Greenville, Hanson, Slaughters, Bastrop, Isola. Accordingly, the leakage surveys at these locations were inadequate and Texas Gas is therefore in violation of the regulation.

12. **§ 192.907 What must an operator do to implement this subpart?**
(a) General. No later than December 17, 2004, an operator of a covered pipeline segment must develop and follow a written integrity management program that contains all the elements described in § 192.911 and that addresses the risks on each covered transmission pipeline segment. The initial integrity management program must consist, at a minimum, of a framework that describes the process for implementing each program element, how relevant decisions will be made and by whom, a time line for completing the work to implement the program element, and how information gained from experience will be continuously incorporated into the program. The framework will evolve into a more detailed and comprehensive program. An operator must make continual improvements to the program.

Texas Gas failed to follow its written Integrity Management Program (IMP). From a review of records, PHMSA identified that Texas Gas' Form BWP-0230 requires the Area Manager to select Preventive and Mitigative (P&M) Measures in each High Consequence Area (HCA). PHMSA reviewed Texas Gas' IMP Chapter 2 Table 2-1 "Roles and Responsibilities", which neither tasked the Area Manager with the responsibility nor

required them to have the knowledge and training to select P&M Measures for HCAs, as required by the IMP. Additionally, in Table 2-1 of IMP Chapter 2, the “Manager of Pipeline Safety” is identified as the one responsible to select P&M Measures for HCAs, in contradiction of its IMP. Texas Gas failed to follow its IMP by requiring the Area Manager and not the Manager of Pipeline Safety to select P&M measures for HCAs.

13. § 192.947 What records must an operator keep?

An operator must maintain, for the useful life of the pipeline, records that demonstrate compliance with the requirements of this subpart. At minimum, an operator must maintain the following records for review during an inspection.

(a)

(d) Documents to support any decision, analysis and process developed and used to implement and evaluate each element of the baseline assessment plan and integrity management program. Documents include those 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 of the program elements;

Texas Gas failed to maintain records that support decisions made or analysis performed on implemented P&M measures. During the inspection, PHMSA requested records from 2017, 2018 and 2019 supporting the P&M measure process. From a review of the records provided by Texas Gas, it was found that the conclusions and decisions of the P&M measures implemented were not documented. Additionally, during a meeting on February 9th, 2021, PHMSA requested documentation supporting the P&M measure chosen, such as the “What-if Analysis” per IMP Chapter 8 Section 2.2, and Texas Gas could not provide any supporting documentation. Therefore, Texas Gas failed to support the justification in determining what P&M measures were implemented or how the measure chosen prevented or mitigated the risks identified for the ten HCAs listed below for 2017, 2018 and 2019.

2003 - EUT 30-1TT – 84

2003 - MLS 26-2TT - 165

2003 - MLS 26-2TT - 174

2003 - MLS 26-2TT - 205 - A

2003 - SHC 20-1TT - 310

2003 - MLS 26-1TT - 105 - 2

2003 - MLS 26-1TT - 131 - 2

2003 - MLS 26-1TT - 135 - B

2003 - MFB 20-1TT - 489 - 2

2012 - GUG 30-1TT - 623

Proposed Civil Penalty

Under 49 U.S.C. § 60122 and 49 CFR § 190.223, you are subject to a civil penalty not to exceed \$225,134 per violation per day the violation persists, up to a maximum of \$2,251,334 for a related series of violations. For violation occurring on or after January 11, 2021 and before May 3, 2021, the maximum penalty may not exceed \$222,504 per violation per day the violation persists, up to a maximum of \$2,225,034 for a related series of violations. For violation occurring on or after July 31, 2019 and before January 11, 2021, the maximum penalty may not exceed \$218,647 per violation per day the violation persists, up to a maximum of \$2,186,465 for

a related series of violations. For violation occurring on or after November 27, 2018 and before July 31, 2019, the maximum penalty may not exceed \$213,268 per violation per day, with a maximum penalty not to exceed \$2,132,679. For violation occurring on or after November 2, 2015 and before November 27, 2018, the maximum penalty may not exceed \$209,002 per violation per day, with a maximum penalty not to exceed \$2,090,022.

We have reviewed the circumstances and supporting documentation involved for the above probable violation(s) and recommend that you be preliminarily assessed a civil penalty of \$474,300 as follows:

<u>Item number</u>	<u>PENALTY</u>
5	\$29,000
8	\$38,000
9	\$28,300
10	\$45,200
11	\$138,100
13	\$195,700

Warning Items

With respect to items 1, 4, 7, and 12 we have reviewed the circumstances and supporting documents involved in this case and have decided not to conduct additional enforcement action or penalty assessment proceedings at this time. We advise you to promptly correct these items. Failure to do so may result in additional enforcement action.

Proposed Compliance Order

With respect to items 2, 3, 6, 8, and 11 pursuant to 49 U.S.C. § 60118, the Pipeline and Hazardous Materials Safety Administration proposes to issue a Compliance Order to Texas Gas Transmission, LLC. Please refer to the *Proposed Compliance Order*, which is enclosed and made a part of this Notice.

Response to this Notice

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. All material you submit in response to this enforcement action may be 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, or request a hearing under 49 CFR § 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 a Final Order. If you are responding to this Notice, we propose that you submit your correspondence to my office within 30 days from receipt of this Notice. This period may be extended by written request for good cause.

In your correspondence on this matter, please refer to **CPF 3-2022-019-NOPV** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

Gregory A. Ochs
Director, Central Region, Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration

Enclosures: *Proposed Compliance Order*
Response Options for Pipeline Operators in Enforcement Proceedings

PROPOSED COMPLIANCE ORDER

Pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to issue to Texas Gas Transmission, LLC (Texas Gas) a Compliance Order incorporating the following remedial requirements to ensure the compliance of TGT with the pipeline safety regulations:

- A. In regard to Item Number 2 of the Notice pertaining to the failure to inspect pipe for atmospheric corrosion at its compressor stations, Texas Gas must, within **90** days of the Final Order:
 - i. Revise Boardwalk O&M Section 8040 – Atmospheric Corrosion Control to ensure that atmospheric inspections are performed at all pipe wall penetrations at buildings.
 - ii. Evaluate all locations in the scope of the inspection for buildings with pipe penetrating building walls that have not been inspected adequately: Bowling Green, Calvert City, Covington, Dixie, Hanson, Kenton, Petersburg, Midland 3, West Greenville, and Slaughters areas.
 - iii. Perform adequate visual inspection at all locations identified by the evaluation required by ii.
 - iv. Submit revised procedures and summary of inspections to Director upon completion.
- B. In regard to Item Number 3 of the Notice pertaining to inspection and maintenance of emergency equipment, Texas Gas must:
 - i. Complete inspection and maintenance activities on emergency equipment at the identified locations within **90** days of receipt of the Final Order.
 - ii. Furnish to the Director, Central Region, a report summarizing the results above within **120** days of receipt of the Final Order.
- C. In regard to Item 6 of the Notice pertaining to failure to review work performed by personnel, Texas Gas must provide a detailed written procedure to address the periodic review of work done to determine the effectiveness of its normal operations and maintenance procedures. The revised procedure must prescribe the necessary frequency and documentation required for a complete review of all normal maintenance and operations procedures within a reasonable time period. Respondent must submit the written program to the Director within **90** days of the issuance of the Final Order and provide semi-annual reports to the Director on the results of the revised program until completion of the review of all procedures in the time prescribed by the procedure.
- D. In regard to Item Number 8 of the Notice pertaining to the MAOP exceeding the lowest pressure allowed at its compressor stations, Texas Gas must, within **180** days of the Final Order:
 - i. Review all locations in the scope of the inspection for correct MAOP: Bowling Green, Calvert City, Covington, Dixie, Hanson, Kenton, Petersburg, Midland 3, West Greenville, and Slaughters areas.

- ii. Perform adequate corrective actions at all locations identified by the review required by i.
 - iii. Submit a summary of review and corrective actions to Director upon completion.
- E. In regard to Item 11 of the Notice pertaining to the adequacy of equipment used to perform leakage surveys, Texas Gas must, within **90** days of receipt of the Final Order, perform an adequate leakage survey at all sites identified in the Notice and report the results to the Director, PHMSA Central Region. The report must specifically include the grade of all leaks discovered by the survey.
- F. It is requested that Texas Gas maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Gregory A. Ochs, Director, Central Region, Pipeline and Hazardous Materials Safety Administration. It is requested that these costs be reported in two categories: 1) total cost associated with preparation/revision of plans, procedures, studies and analyses, and 2) total cost associated with replacements, additions and other changes to pipeline infrastructure.