Email Only

December 15, 2021

Mr. Gregory A. Ochs
Director, Central Region, Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration
901 Locust Street, Suite 480
Kansas City, MO 64106

Re: CPF-3-2021-041-NOA
Response from Texas Gas Transmission, LLC ("Texas Gas") and
Gulf South Pipeline Company, LLC ("Gulf South") to PHMSA's Notice of Amendment ("Notice")

Dear Mr. Ochs,

On November 5, 2021, the Pipeline and Hazardous Materials Safety Administration ("PHMSA") issued the above-referenced Notice in association with the inspection of Texas Gas and Gulf South's Operations and Maintenance Program ("O&M") procedures. Program procedures and records review were conducted from February 5th through February 9th, 2020 in Owensboro, KY. Texas Gas is the primary for the Safety Program Relationship which supports the following OPIDs: 19270 Texas Gas Transmission, LLC and 31728 Gulf South Pipeline Company, LLC. Texas Gas and Gulf South are subsidiaries of Boardwalk Pipelines, LP (Boardwalk).

Texas Gas is not contesting the allegations in the Notice with respect to the proposed inadequacies found within Texas Gas's plans or procedures and has made revisions for each Item as described below:

1. § 192.605 Procedural manual for operations, maintenance, and emergencies

Boardwalk's procedures for internal corrosion control were found to be inadequate because they failed to define how to control internal corrosion per the requirements of §192.475. The requirements for internal corrosion testing specified in Boardwalk's Corrosion Manual Section 3.3 stated that gas testing shall be performed: "if the flow direction is changed". Boardwalk operates a number of storage fields and bidirectional pipelines but does not perform testing in each instance of a flow change for these lines. Boardwalk must amend its procedure to specify the testing frequency required to ensure no corrosive condition is created from bidirectional flow.

Boardwalk Response: Revised Internal Corrosion Manual section 3.3 Sampling Frequency and External Corrosion Manual section and 2.1.1 Introduction per PHMSA recommendations per CR 2021-03-08 and CR 2021-04-23

2. § 192.605 Procedural manual for operations, maintenance, and emergencies

Boardwalk's Operations and Maintenance Manual (O&M) Section 3010 was found to be inadequate because it failed to define the frequency of inspection of its emergency equipment per the requirements of §192.615(a)(4). Boardwalk's O&M Section 3010 states "Emergency equipment shall be periodically inspected and maintained in good operating condition." Boardwalk must amend its procedure to provide a schedule for conducting inspection and maintenance activities on emergency equipment.

Boardwalk Response: Revised with CR 2021-03-04a on 3/5/2021.

3. § 192.605 Procedural manual for operations, maintenance, and emergencies

Boardwalk's Event Response Plan (ERP) was found to be inadequate because it failed to identify the qualifications needed for personnel who investigate pipeline failures per the requirements of §192.617. Boardwalk's ERP Section 5 states "An employee at the scene of the event should be designated to coordinate the investigation and when necessary, a qualified investigative team should be established." Boardwalk's procedure did not identify what qualifications are needed for a person to lead or participate as a member of the investigative team. The procedure must be amended to provide criteria for establishing an investigative team.

Boardwalk Response: Revised with CR 2021-02-04a on 3/12/2021, 2020-04-09a, and 2020-03-11

4. § 192.605 Procedural manual for operations, maintenance, and emergencies

Boardwalk's procedures were found to be inadequate because they failed to provide personnel with details for determining when a pipeline has been sufficiently purged with air to ensure safety per the requirements of §192.629. Operations and Maintenance Procedure 2140 – Purging (Rev. date 12/20/2019) relied on air movers and sampling of atmosphere in the pipeline facility to verify a safe atmosphere. The procedures failed to specify what final concentration of gas in air to be left in the pipeline is considered non- hazardous. The procedures must be modified to ensure through testing that purged pipelines contain a non-hazardous atmosphere.

Boardwalk Response: Purging procedure was revamped requiring final concentration to be tested. Revised with CR 2021-05-27 on 7/26/2021 and 2021-03-05a.

5. § 192.605 Procedural manual for operations, maintenance, and emergencies

Boardwalk's procedural manual was found to be inadequate because it failed to provide instructions for conducting maintenance and testing of gas detection and alarm systems per the requirements of §192.736. Boardwalk failed to integrate two different procedures into Section 9040 – Compressor Station Gas Detection (Revision effective date 02/14/2020) that are defined as "Work Instructions" (WI): Procedures WI-12502 CI Testing And Maintaining Gas Detection Alarm/Shutdown Systems and WI-12505 CI Testing And Maintaining Fire And Heat Detection Alarm/Shutdown Systems. These work instructions were added to the manual after the inspection and found to be acceptable. No further action is needed by Boardwalk.

Boardwalk Response: – Added reference to Work Instructions per CR 2020-03-11 2021-03-4b, and 2021-03-18

6. § 192.605 Procedural manual for operations, maintenance, and emergencies

Boardwalk's procedural manual was found to be inadequate because it failed to provide instructions for performing capacity calculations per the requirements of §192.743. Specifically, Boardwalk failed to integrate necessary procedures into Section 2050 "Regulator and Overpressure Protection" (Revision effective date 01/01/2020) into its manual: WI-06957 "CI Calculating Overpressure Protection Capacity (Effective date December 2019) and an application within the Operations Management System (OMS) Regulator and Relief Valve (RRV) which is used to perform capacity calculations, were not incorporated. These procedures were added to the manual after the inspection and found to be acceptable. No further action is needed by Boardwalk.

Boardwalk Response: added reference to Work Instructions with CR 2021-03-04 on 6/30/2020.

7. § 192.605 Procedural manual for operations, maintenance, and emergencies

Boardwalk's procedural manual was found to be inadequate because it failed to provide instructions for inspection and operation of mainline valves per the requirements of §192.745. Specifically, procedures did not specify how valves were to be inspected by field services personnel in combination with remote control of the valve by gas control. O&M Section 5030 "Emergency Valve Maintenance" (Revision effective date 01/01/2020) and Task 716OP "Inspect, Maintain and Operate Valves" did not specify the responsibility for personnel to operate a remote automated block valve during an inspection. These procedures were modified to include more detailed instructions after the inspection and found to be acceptable. No further action is needed by Boardwalk.

Boardwalk Response: Revised with CR 2021-03-04 on 3/5/2021

8. § 192.605 Procedural manual for operations, maintenance, and emergencies

Texas Gas O&M Section 5050 "Storage of Combustible Materials" was inadequate because it lacks sufficient guidance for the storage of combustible materials. CFR 49 §192.735 requires all combustible materials not needed for operations to be stored a safe distance from the compressor building. From a review of Texas Gas' O&M Section 5050, it was found that the procedure refers to "flammable and combustible liquids" instead of combustible material. Texas Gas must amend the procedure to state clearly that it applies to all flammable and combustible material. The procedure was amended after the inspection and found to be acceptable. No further action is needed by Boardwalk.

Boardwalk Response: - Revised per 2020-03-11 on 6/30/2020.

9. § 192.605 Procedural manual for operations, maintenance, and emergencies

Boardwalk's O&M Section 2060 - Uprating was found to be inadequate per the requirements of §192.553 because it does not specify the methods to be used in detecting leaks, or prescribe criteria for determination of which leaks are allowed to be monitored as nonhazardous. §192.553 requires an operator to check for leaks and repair hazardous leaks when uprating a pipeline; therefore, Boardwalk must amend its procedures to specify in detail how leaks will be detected and graded.

Boardwalk Response: Revised with CR 2020-03-11 on 6/30/2020 and further revisions with CR 2021-03-26 on 3/29/2021.

10. § 192.605 Procedural manual for operations, maintenance, and emergencies

Boardwalk's O&M Section 2020 "Conversion to Gas Service" was found to be inadequate because it fails to reference 49 CFR Subpart J pressure testing requirements for conversion to gas service. The procedure must be amended to included conversion to service requirements relevant to §192.14(a)(4) to substantiate the maximum operating pressure. The procedure was amended after the inspection and found to be acceptable. No further action is needed by Boardwalk.

Boardwalk Response: - Revised with CR 2020-03-11 on 6/30/2020 and further revisions with CR 2021-03-26 on 3/29/2021.

11. § 192.605 Procedural manual for operations, maintenance, and emergencies

Boardwalk's O&M Appendix I Subsection 10 was found to be inadequate because it failed to specify how plastic pipe is to be maintained and repaired. Specifically, the procedure did not require the inspection of each joint nor describe the manner in which the joint must be inspected as by required by §192.287. Boardwalk's procedure must be amended to include inspection requirements and acceptance criteria for each plastic pipe joint made.

Boardwalk Response: Revised with CR 2020-12-03b on 3/12/2021, 2020-03-11 and further revisions made after PHMSA GRIT Inspection and Boardwalk review on CR 2021-03-26 on 3/29/2021.

12. § 192.605 Procedural manual for operations, maintenance, and emergencies

Boardwalk's O&M Section 2070 was found to be inadequate for failing to require replacement pipe to be tested to pressure required for new line installed in the same location per the requirements of §192.719(a). Specifically, Boardwalk's procedure did not specify the number of joints of pretested replacement pipe that are allowed to be installed without a post-construction strength test. Therefore, Boardwalk's procedure must be amended to include criteria that identifies when replacement line pipe requires a post-construction strength test. The procedure was amended after the inspection and found to be acceptable. No further action is needed by Boardwalk.

Boardwalk Response: Revised with CR 2020-09-30a and 2020-09-30 on 10/01/2020.

13. § 192.615 Emergency plans

Boardwalk's procedures were found to be inadequate because they failed to define how to make safe any actual or potential hazard to life. Boardwalk's Operations and Maintenance Manual Section 2130 – General Operation (Rev. date 02/07/2020) and Emergency Response Plan (ERP) Section 4 did not define a safe evacuation perimeter for its personnel to ensure safety from a potential hazard or incident site. These procedures were amended to include more detailed instructions after the inspection and found to be acceptable. No further action is needed by Boardwalk.

Boardwalk Response: Revised with CR 2020-03-11 on 6/30/2020.

14. § 192.907 What must an operator do to implement this subpart?

Boardwalk's Integrity Management Plan (IMP) Chapter 2 Table 2-1 and Chapter 8 Table 4-1 were found to be inadequate for failing to establish by whom relevant decisions will be made. Specifically, these tables assign two different Boardwalk Administration Titles, "Mgr. Pipeline Safety" & "Integrity Management Specialist", the same responsibility for Preventive and Mitigative (P&M) Measures identification. The criteria for the qualifications of these positions are not equivalent, the qualifications, education, training or experience that demonstrate knowledge of P&M Measures and threats is not identified and it is not clear who is responsible for implementation of P&M Measures.

Boardwalk Response: Revised with CR 2021-02-16a on 2/18/2021, 2021-07-12a; IMP MOC 1022 Published 02/18/21

15. § 192.907 What must an operator do to implement this subpart?

Boardwalk's IMP Chapter 6 Section 3 was found to be inadequate for failing to require a qualified person determine reassessment intervals, per the requirements of §192.915(b)(3). At the time of the inspection, Boardwalk's procedure required that the "Mgr. Pipeline Services" determine the reassessment interval. However, the Education, Training and Experience requirements for the "Mgr. Pipeline Services" did not include the knowledge and skills necessary for making decisions on actions to be taken based on assessments. Boardwalk must amend its procedure to ensure that a qualified person is determining the reassessment interval based on assessment results.

Boardwalk Response: Revised with CR 2021-02-16a on 2/18/2021; IMP MOC 1022 Published 02/18/21

16. § 192.907 What must an operator do to implement this subpart?

Boardwalk's IMP Appendix 4 Section 13 was found to be inadequate for failing to state repair schedules in accordance to ASME/ANSI B31.8S, section 7 per the requirements of §192.933(d)(1). Specifically, Boardwalk's "Full Life" and "Half Life" corrosion growth rate calculations inappropriately utilized the "Install Year" of the pipeline to calculate the growth rates of corrosion defects. Boardwalk's corrosion growth rate equations must be amended to require the identification and utilization of appropriate information, such as prior assessments, to ensure defects will not grow to critical dimensions prior to the next assessment.

Boardwalk Response: CR 2021-06-17. Additional column added to vendor ILI log to provide install year on joint per joint basis. No changes were made to Appx 4 Section 13: But ILI Dept changed their Graded Log Form (Pipe Listing Template) in July to add Install Year by Pipe Segment.

17. § 192.907 What must an operator do to implement this subpart?

Boardwalk's IMP Chapter 8 Section 2 was found to be inadequate per the requirements of §192.935 because it failed to implement additional P&M measures as required by Part 192 regulations. Specifically, the procedure states "During the evaluation process, if a selected HCA already has a P&M measure completed for this threat within the last three-year evaluation cycle, then it will be replaced with the next highest ranked HCA to ensure that additional HCAs are being evaluated each cycle." This is inconsistent with IMP Chapter 4 Section 1.3 and IMP Chapter 8 Section 2.1 which required the implementation of P&M Measures be based on the annual update and review of the risk assessment. Therefore, Boardwalk's procedure for P&M implementation must be amended to ensure that planned P&M measures are reviewed and implemented annually based on the actual risk score determined by the risk analysis.

Boardwalk Response: Revised with CR 2021-07-12a on 7/21/2021; IMP MOC 1037 Published 07/21/21
Previously HCAs with PMMs completed within the last 3 years were omitted for annual PMM consideration. We now have removed the 3-year exception.

18. § 192.907 What must an operator do to implement this subpart?

Boardwalk's IMP Chapter 8 Table 2-1 "P&M Measures by Threat" was found to be inadequate per the requirements of §192.935(a) because it included measures that do not go beyond the requirements of 49 CFR Part 192. Specifically, the procedure lists measures which are already required by Part 192 such as: "O&M Procedures Training", "CP Maintain/Monitor", and "Monitor Pipeline Excavation with Qualified Company Personnel". Boardwalk must amend its procedure to define how each P&M Measure will exceed regulatory requirements.

Boardwalk Response: Revised with CR 2021-07-12a on 7/21/2021; IMP MOC 1037 Published 07/21/21

19. § 192.907 What must an operator do to implement this subpart?

Boardwalk's IMP Appendix 4 Table 4.1 was found to be inadequate for failing to identify acceptance criteria for integrity assessments performed with internal inspection tools per the requirements of §192.937. Specifically, the procedure was inadequate for listing unacceptable tool run performance metrics as "Open for discussion". Boardwalk's procedure must be amended so that it provides clear criteria and guidance for acceptance and rejection of an ILI tool run based on recorded tool performance metrics.

Boardwalk Response: Revised with CR 2021-02-09a on 2/12/2021; IMP MOC 1015 Published 02/12/21.

The Change Requests (CR) referenced above have been uploaded to a folder on the FTP site labeled "Remaining MOCs 11-2021". In addition to the CR redlines, new versions of Boardwalk's O&M Manual ("O&M"), Integrity Management Plan ("IMP"), Event Response Plan ("ERP") and Corrosion Manual have been uploaded as well.

Through the actions specified in this letter, Boardwalk is fulfilling the requirements of the Notice. If you have any questions concerning the information contained in this response, please do not hesitate to contact me or Tina Baker, Manager, Compliance Services.

Respectfully yours,

Tony G. Rizk
Vice President, Technical Services

FTP Folder: Remaining MOCs 11-2021