



April 23, 2020

Mr. Robert Burrough, Director  
PHMSA, Eastern Region  
840 Bear Tavern Road  
Suite 300  
West Trenton, NJ 08628

RE: Warning, CPF 1-2020-1010W

Dear Mr. Burrough:

Texas Gas Transmission, LLC (Texas Gas or TGT), a subsidiary of Boardwalk Pipelines, LP (Boardwalk) has received the Warning Letter dated March 27, 2020, regarding the probable violations found between March 25, 2019 and August 29, 2019, during PHMSA's onsite inspections of Texas Gas's assets in Kentucky and Indiana.

Texas Gas has reviewed the probable violations and presents the following response to Item 3 as outlined below:

**Item 3:** *§192.12 and API RP 1171-8.4.2: TGT failed to meet the requirements of API RP 1171, Section 8. Specifically, TGT failed to identify all threats to the well or the storage as required by API RP 1171, Section 8.4.2 Threat and Hazard Identification and Analysis (Section 8.4.2). During the Leesville Storage facility inspection, it was established that the facility has H<sub>2</sub>S gas as part of the gas being stored and gathered. TGT's Storage Integrity Program and Risk Management Model failed to include this hazardous gas as a threat to the storage and wells. Table 1 of API RP 1171 includes the threat of reservoir fluid compatibility issues with potential consequences of H<sub>2</sub>S generating bacteria, as well as internal corrosion that could result in well and/or pipeline repairs/failures.*

**Response:** Boardwalk addresses threat and hazard interaction by incorporating compound multipliers into the TaskOp™ risk model and plans to further capture these interactions by integrating quantitative field data and inspection results into the model. Accelerated corrosion and compounded blowout scenarios due to elevated H<sub>2</sub>S levels were added to TaskOp™ on March 13, 2020 for Wilfred and Leesville Storage fields. Increasing multipliers are given to each ppm of H<sub>2</sub>S range with greater than 50 being times 2. See image below.

Consequence WC1.8	What is the concentration of H2S? (PPM) (Per OSHA Guidelines)	Risk Ranking WC1.8	Low
Documentation WC1.8	<input type="text"/>	Question Weight WC1.8	4.0%
Comments WC1.8	<input type="text"/>	Likelihood WC1.8	1.75
Probability WC1.8	21 to 50	Consequence Total WC2	2

Categorization: Environment Safety

Appendix 3 of the *Underground Natural Gas Storage Manual* reflects this update as shown in MOC 2020-03-25e.

If you have any questions regarding this response, please contact me at (270) 688-6497 or by email at [Tina.Baker@bwpipelines.com](mailto:Tina.Baker@bwpipelines.com).

Sincerely,



Tina H. Baker  
Manager, Compliance Services

Enclosure

C: Mr. James Pfeifle, PHMSA  
Mr. Richard Keyser, Boardwalk Pipelines, LP  
Mr. Tony Rizk, Boardwalk Pipelines, LP  
Mr. Mike Brandau, Boardwalk Pipelines, LP  
Mr. Randy Head, Boardwalk Pipelines, LP