Enbridge
915 N. Eldridge Parkway, Ste. 1100
Houston, TX 77079

Via Electronic Mail

July 31, 2025

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

RE: Texas Eastern Transmission, LP
Notice of Amendment
CPF 3-2025-028-NOA

Dear Mr. Barrett,

From May 13 through June 27, 2024, 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 the Texas Eastern Gas Transmission (TETLP) procedures and records for the new gas integrity rule in Houston, Texas

On July 1, 2025, PHMSA issued the above referenced Notice of Amendment (NOA) identifying seven (7) apparent inadequacies found within TETLP's plans and procedures. The following is a summary of PHMSA's concerns and TETLP's response to those concerns.

PHMSA Finding

1. **§ 192.607 Verification of Pipeline Material Properties and Attributes: Onshore steel transmission pipelines.**

   TET's procedure PI-01.001 – Material Verification Procedure did not consider an opportunistic dig as an excavation that did not excavate the full circumference of the pipe. Specifically, Section 4.1 of the procedure only considers an opportunistic dig to occur where the full circumferential extents of the segment will be exposed. Even if the pipe is not fully excavated, there are opportunities to get missing attributes that do not require the entire pipe circumference to be exposed. The Final Rule specifically addresses this as a response to industry comments regarding the number of test points for non-destructive testing. PHMSA reduced the number of test points from four quadrants to two quadrants to allow for material

verification on the top half of the pipe and avoid the need to access the bottom half of the pipe when a repair or maintenance activity would not require it.[2] Therefore, TET did not have adequate procedures for § 192.607(c) as required by § 192.605(a).

TETLP Response

On April 4, 2025, TETLP revised Section 9.3 and Table 5 of PI-1.001 *Material Verification Procedure* to address opportunistic excavations where certain material properties can be obtained in situations where the full circumference of the pipe is not exposed. A copy of PI-1.001 *Material Verification Procedure* changes is enclosed.

2. § 192.607 Verification of Pipeline Material Properties and Attributes: Onshore steel transmission pipelines.

TET's procedure PI-01.500 – *Populations of Similar Segments Guide* indicated in Appendix A that the commissioning pressure test (construction date) could be used as a proxy for the manufacturing date which § 192.607(e)(1) does not allow. Construction dates cannot be used as a proxy for manufacturing date because material attributes are directly tied to the manufacturing date. Therefore, TET did not have adequate procedures for § 192.607(e)(1) in accordance with § 192.605(a).

TETLP Response

TETLP revised PI-01.500 *Populations of Similar Segments Guide,* Appendix A to exclude the use of construction date as a proxy for manufacturing date. An updated copy of PI-01.500 Appendix A is enclosed.

3. § 192.609 Change in class location: Required study.

TET's procedure OC-52.202 - *Class Determination Procedure,* did not contain enough specificity in their class analysis review to meet the requirements in § 192.609(a) – (f). Section 8.3.2.4 of the class analysis review section referenced sections § 192.609(a), (b), (e), and (f), but did not provide any guidance on how to fulfill the requirements and how that review would be documented. TET personnel indicated that § 192.609(c) and (d) were completed by their Encroachment group, but the procedures made no mention of that work group and what they were expected to do and document. Additionally, the procedure did not specify that the class analysis must be done when the pipeline is operating above 40% SMYS or when the pipeline's MAOP is not commensurate with the current class location. The procedure appeared to be focused on Class 3 and 4 areas but did not direct personnel to conduct the study if these conditions occur in a Class 1 or 2 area. Therefore, TET did not have adequate procedure for § 192.609(a)–(f) as required by § 192.605(a).

TETLP Response

TETLP believes that the current processes and procedures in practice address the requirements under §192.609; however, procedures will be updated to explicitly address items under §192.609.

TETLP performs the Class Analysis program on all transmission pipelines regardless of the operating stress level.

4. § 192.613 Continuing surveillance.

TET's Procedure 50.201 – *Field Surveillance and Monitoring Process* did not provide enough guidance with regards to monitoring their facilities in order to take appropriate action concerning changes in class locations. Specifically, Table 3 – *Surveillance and Monitoring Descriptions* described categories for damage prevention and then provided guidance on how to address that category for continuing surveillance. In the category *Land Use and Landownership Monitoring*, one of the bulleted guidance items stated that personnel "periodically review and assess the land use adjacent to the GTM asset". The procedure did not define periodically (how often they were to conduct the review), nor did it define how personnel were going to assess the facilities adjacent to GTM assets, such as identified Class 3 and High Consequence Area sites. During the records review, two examples were noted where buildings next to GTM assets were not correctly identified as occupied sites with one resulting in a missed Class 3 site. Therefore, TET did not have adequate procedures for § 192.613 as required by § 192.605(a).

TETLP Response

TETLP will modify DP-50.201 *Field Surveillance and Monitory Process* to specifically reference the OC-52.202 *Class Determination Process* and OC-52.201 *HCA MCA Process* where continuing surveillance of land use and structures is specifically conducted to identify changes in class location, HCA's and MCA's. The review of land use and structures is carried out continuously and is finalized each year.

5. § 192.632 Engineering Critical Assessment for Maximum Allowable Operating Pressure Reconfirmation: Onshore steel transmission pipelines.

TET's procedure PI-01.100 – *Field Material Verification Procedure* did not require obtaining the Charpy V-notch toughness values at the lowest operating temperature when being utilized for an Engineering Critical Assessment. Appendix A – *Destructive Testing Test Plan* in section 3c. only indicated that the tests would be performed at 23 degrees F, 50 degrees F, and 75

degrees F. Thus, TET 's procedures for obtaining Charpy V-notch values do not meet the requirements of § 192.632(a)(1) as required by § 192.605(a).

TETLP Response

TETLP updated PI-01.100 – *Field Material Verification Procedure* Appendix A *Destructive Testing Plan* was updated to include testing at the lowest operating temperature. A copy of PI-01.100 – *Field Material Verification Procedure* is enclosed.

6. § 192.712 Analysis of predicted failure pressure and critical strain level.

TET did not have a procedure that would determine the largest potential crack defect to survive a pressure test in accordance with § 192.712(d)(3). This procedure is required to determine the next reassessment interval in accordance with § 192.939 if hydrotesting were to be used as well as conducting remedial actions as required in § 192.933 in the Integrity Management program. Therefore, TET did not have procedures for § 192.712(d)(3) as required by § 192.605(a).

TETLP Response

TETLP seldom utilizes hydrotesting as an assessment method. However, PI-04.103 Reassessment Interval has been updated to include a method for determining the largest potential crack defect that would survive a pressure test. A copy of PI-04.103 Re-Assessment Interval Determination Procedure is enclosed.

7. § 192.712 Analysis of predicted failure pressure and critical strain level.

TET's procedure AI-72.800 – Asset Integrity Risk Algorithm Document Guide did not require the use of the values upon which the current MAOP was based upon as inputs for the risk analysis used to determine the predicted failure pressure. The procedure did not require the use of the material properties for which the MAOP was based upon if traceable, verifiable, and complete records are unknown. Appendix C – *Default Uncertainty Distributions* of the document contains the default uncertainty values used for the analysis. Table C.4 – *Material Tensile Properties* lists the Specified Minimum Yield Strength (SMYS), the Mean, and the Standard Deviation for the yield strength and tensile strength for each grade of pipe. In the table, PHMSA noted that the mean values taken with the standard deviation would exceed the SMYS value utilized to establish the MAOP. For example, the table indicates for Grade 24000 psi pipe, there is a mean of 26400 psi and a standard deviation as 924 psi. The lowest value that could be used is 25476 psi (26400 – 924 = 25476), which is greater than 24000 psi SMYS. During the inspection, TET personnel indicated that the mean values, which all exceed the SMYS, are used as inputs in the analysis. As a result, there appears to be a conflict with PI-04.505 Section 7.3.2.1 which states that the values which the current MAOP is based upon

must be used when calculating predicted failure pressures. Therefore, TET's procedure in AI-72.800 did not meet the requirements of § 192.712(e)(2)(iii) as required by § 192.605(a).

TETLP Response

The assertion is that TETLP AI-72.800 does not meet the requirements of §192.712 (e)(2)(iii)[1], which must be applied until material properties are available. PI-04.505 requires the use of Specified Minimum Yield Strength (SMYS) to calculate predicted failure pressure and schedule anomaly response, relying solely on SMYS in a deterministic manner.

In contrast, AI-72.800 employs a risk-based, probabilistic approach that accounts for all uncertainties, including yield strength, and consequences such as structure density. While PI-04.505 considers only SMYS, AI-72.800 evaluates the full range of probable yield strengths for the applicable grade, as illustrated in Figure 1. By incorporating multiple standard deviations, the assessment captures tail risks, including low-probability values that fall below SMYS.

Analysis under PI-04.505 and AI-72.800 is conducted concurrently. If the assessed risk remains high after accounting for uncertainties and consequences under AI-72.800, the anomaly response may be accelerated in accordance with PI-04.303, *Risk-Informed Decision Making*. Notably, this analysis never results in a deceleration of the anomaly response (see Figure 2).

Therefore, PI-04.505 adequately satisfies the requirement to use values in which the MAOP is based, until material properties are available when calculating predicted failure pressure, in accordance with §192.712(e)(2)(iii). In addition, AI-72.800 also considers the full distribution of yield strength for a given grade and is not limited to $\pm 1\sigma$.

[1] §192.712(e)(2)(iii) Pipe dimensions and other data. Until pipe wall thickness, diameter, or other data are determined and documented in accordance with §192.607, the operator must use values upon which the current MAOP is based.

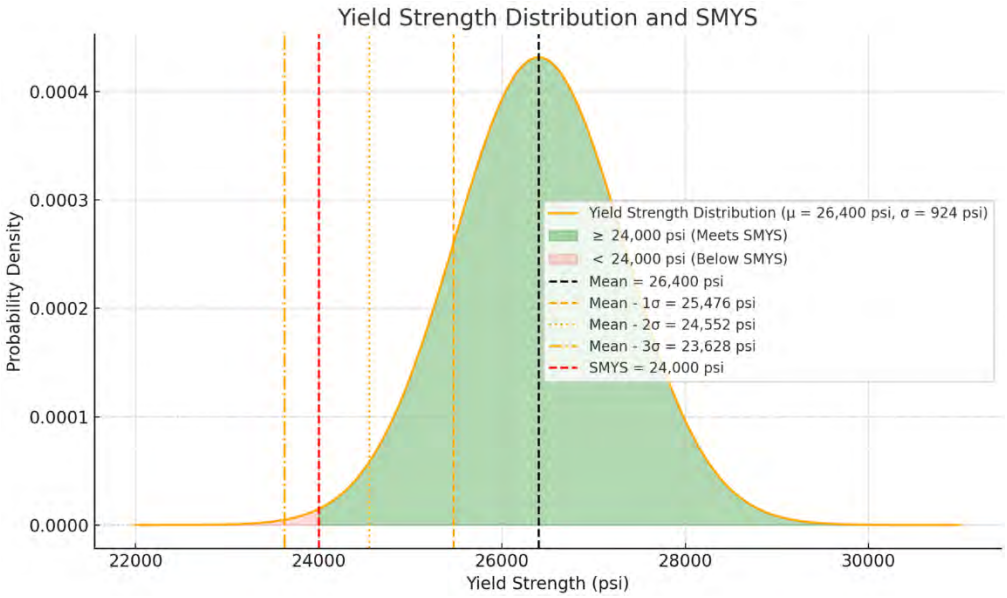

Figure 1 - Yield Strength Distribution for 24,000 SMYS

This illustrates that even though most values are near the mean, there is always a non-zero probability of more extreme results. For example, a small portion of values will fall below the SMYS of 24,000 PSI, even if the mean is 26,400 PSI.

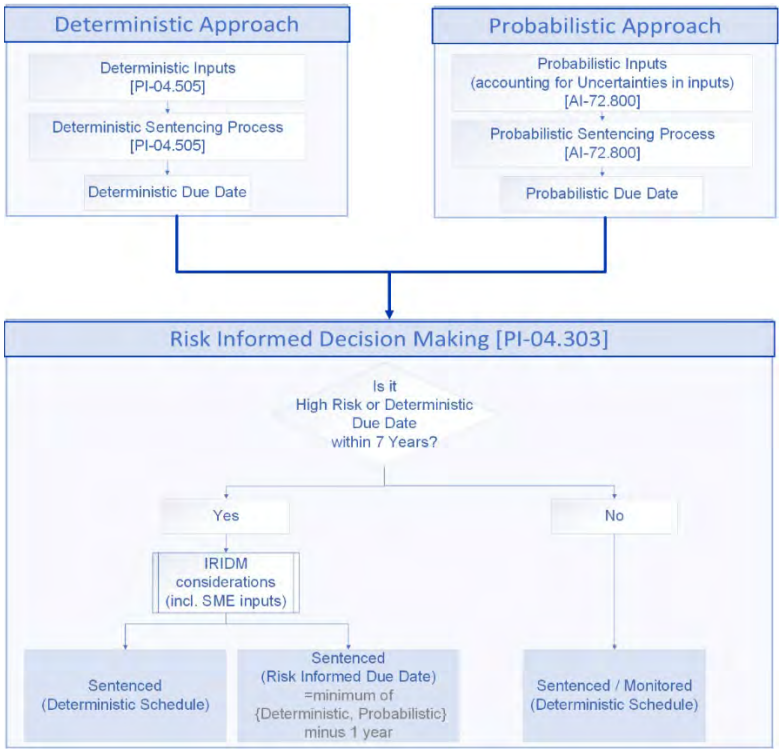

Figure 2 - Risk Informed Decision Making

We trust that you will find the revisions to the stated procedures will address the issues noted in the NOA. Enbridge takes these issues very seriously and we are committed to addressing these issues in an expeditious manner. Please call me on (713) 627-6601 if you need additional information.

Sincerely,

Peter Seydewitz

Peter Seydewitz
Director, Operational Excellence
GTM Engineering & Asset Management

Attachments:

1. PI-1.001 - *Material Verification Procedure*
2. PI-01.500 - *Populations of Similar Segments Guide – Appendix A*
3. PI-01.100 - *Field Material Verification Procedure*
4. PI-04.103 - *Reassessment Interval*