Enbridge
5400 Westheimer Court
Houston, Texas 77056

November 28, 2017

Mr. Robert Burrough
Acting Director, Eastern Region
Pipeline and Hazardous Materials Safety Administration
820 Bear Tavern Road
Suite 103
West Trenton, NJ 08628

RE: Texas Eastern Transmission, LP Response
Notice of Amendment
CPF 1-2017-1016M

Dear Mr. Burrough,

On August 1 and 2, 2017, a representative of the Pipeline Hazardous Material Safety Administration (PHMSA) conducted an inspection of Texas Eastern Transmission, LP's (TETLP), (a subsidiary of Spectra Energy Partners, LP) (SEP[1]), Access Adair Lebanon Extension project in Pennsylvania.

On October 30, 2017, PHMSA issued the above referenced Notice of Amendment (NOA) letter alleging three (3) probable inadequacies of Enbridge's plans and procedures. TETLP contends its specifications and procedures are fully compliant with all applicable regulations, and the NOA findings are due to TETLP not providing all specifications and procedures needed to demonstrate compliance during the inspection.

The following is a summary of the NOA findings and TETLP's response to each finding.

1. §192.303 Compliance with specifications or standards.

PHMSA Finding

Enbridge's written specifications or standards for constructing each transmission line in accordance with 49 C.F.R. Part 192 were inadequate. Specifically, Enbridge's Construction Specifications failed to restrict miter joint deflection as specified in §192.233(a).

[1] On February 27, 2017, Enbridge Inc. and Spectra Energy Corp closed their merger transaction. Enbridge Inc. now indirectly controls the general partner of Spectra Energy Partners, LP (SEP), a master limited partnership, which continues to indirectly own Texas Eastern Transmission, LP.

Section 192.233(a) states, "A miter joint on steel pipe to be operated at a pressure that produces a hoop stress of 30 percent or more of SMYS may not deflect the pipe more than 3°."

During the inspection, the PHMSA inspector requested Enbridge's construction specifications or standards addressing miter joint requirements. Enbridge provided Spectra Energy Construction Specification – *Onshore Compressor Stations* – CS1.7, revised 02/22/2016 (Procedure). Regarding miter joints, the Enbridge Procedure states "Miter joints are not to be performed without written approval from the Company's Metallurgical Services", but did not restrict a miter joint on steel pipe to be operated at a pressure that produces a hoop stress of 30 percent or more of SMYS to a 3° deflection.

Therefore, Enbridge written specifications and standards for construction were inadequate regarding the requirements of §192.233(a).

TETLP Response

TETLP contends its specifications and procedures do specify that a miter joint on steel pipe to be operated at a pressure that produces a hoop stress of 30 percent or more of SMYS may not deflect the pipe more than 3°, as specified in §192.233(a).

As noted in the NOA, TETLP's construction specification CS-CS1.7–*Onshore Compressor Stations*, dated 2/22/2016 states: *"Miter joints are not to be performed without written approval from the Company's Metallurgical Services."*

In addition, TETLP's Standard Operating Procedure (SOP) 7-2050-*Production Welding Requirements* dated 5/12/2014, Section 2.1, states, in part: "*Miter welds up to 3° shall only be permitted with prior approval from the Director, Metallurgical Services – Houston or designee. In accordance with DOT 192.233, no miter bends exceeding 3° shall be permitted on pipe that will operate at over 30% of SMYS*".

(Page 2 of SOP 7-2050 is enclosed. The above referenced text is highlighted.)

TETLP acknowledges that TETLP's SOP 7-2050 was not provided during inspection. However, this procedure demonstrates TETLP does not allow miter bends greater than 3°.

During the construction of the Access Adair Lebanon Extension project, Miter joints were not performed.

2. §192.303 Compliance with specifications or standards.

PHMSA Finding

Enbridge's written specifications or standards for constructing each transmission line in accordance with 49 C.F.R. Part 192 were inadequate. Specifically, Enbridge's Construction Specifications failed to require the determination of the design pressure for steel pipe to be in accordance with the formula specified in §192.105(a).

Section 192.105(a) states in part:

"(a) The design pressure for steel pipe is determined in accordance with the following formula:

$P = (2\ St/D) \times F \times E \times T$"

During the inspection, the PHMSA inspector requested Enbridge's design and construction specifications regarding design pressure requirements for steel pipe. Enbridge provided Enbridge Construction Design Specification - *Onshore Pipelines - DS-PL1.9*, revised 06/12/2017 (Procedure). Enbridge's Procedure did not have a requirement for the design pressure for steel pipe to be determined in accordance with the formula: $P = (2\ St/D) \times F \times E \times T$.

Therefore, Enbridge's written specifications and standards for construction were inadequate regarding the requirements of §192.105(a).

TETLP Response

TETLP contends that its specifications and procedures do require the design pressure for steel pipe be determined in accordance with the formula: $P = (2\ St/D) \times F \times E \times T$, as required by §192.105(a).

TETLP's construction specifications require that *all material shall be manufactured, designed, assembled and inspected in accordance with the current edition of the applicable regulatory standards. In the United States, this is the Code of Federal Regulations Title 49 Part 192, "Regulations for the Transportation of Natural and Other Gas by Pipeline," issued by the United States Department of Transportation (D.O.T.).*

In addition, TETLP's procedure, AP-CD3.1 – *MAOP Establishment and Change Process*, dated 12/21/2016 states: *"The MAOP is calculated based on: the Outside Diameter (OD), Wall Thickness (WT), Grade, Class Location factor, hydrostatic test pressure, joint factor and temperature derating factor. The calculation is:*

*(2*grade*wt /OD)*Class Location Design Factor*Longitudinal Joint Factor*Temperature derating factor in accordance with §192.105."*

(Page 3 of AP-CD3.1 is enclosed. The above referenced text is highlighted.)

TETLP acknowledges that procedure AP-CD3.1 was not provided during inspection. However, TETLP contends AP-CD3.1 demonstrates that the design pressure for steel pipe is determined in accordance §192.105(a).

3. §192.303 Compliance with specifications or standards.

PHMSA Finding

Enbridge's written specifications or standards for constructing each transmission line in accordance with 49 C.F.R. Part 192 were inadequate. Specifically, Enbridge's Construction Specifications failed to require that each buried or submerged pipeline installed after July 31, 1971 be protected against external corrosion as specified in §192.455(a).

Section 192.455(a) states:

"(a) Except as provided in paragraphs (b), (c), and (f) of this section, each buried or submerged pipeline installed after July 31, 1971, must be protected against external corrosion, including the following:

(1) It must have an external protective coating meeting the requirements of §192.461.

(2) It must have a cathodic protection system designed to protect the pipeline in accordance with this subpart, installed and placed in operation within 1 year after completion of construction"

During the inspection, the PHMSA inspector requested Enbridge's construction specifications or standards regarding requirements for the installation of cathodic protection and external corrosion control for newly constructed transmission lines. Enbridge provided Spectra Energy Construction Specification - *Painting and Coating CS-ABC 2, Section 11*, revised 04/18/2016 (Procedure). The Procedure did not require that each buried or submerged pipeline installed after July 31, 1971, must be protected against external corrosion as required by §192.455(a).

Therefore, Enbridge's written specifications and standards for construction were inadequate regarding the requirements of §192.455(a).

TETLP Response

TETLP contends that its specifications and procedures do require that each buried or submerged pipeline installed after July 31, 1971 must be protected against external corrosion as required by §192.455(a).

TETLP's Standard Operating Procedure, SOP 2-2160 – *Coating Systems for Buried or Submerged Piping*, dated 03/25/2016, states: "*All buried or submerged pipe must have an approved coating applied over a properly prepared surface. All coatings must be properly inspected and deficiencies repaired prior to lowering in and backfilling. The specifications and references ensure the following properties for each coating and its application:*

- *Application techniques and controls.*
- *The coating has sufficient adhesion to the metal surface to effectively resist the migration of moisture.*
- *Shall be sufficiently ductile so as to resist cracking*
- *Shall have sufficient strength to resist damage to handling and soil stress, and*
- *Shall be compatible with the existing cathodic protection systems*
- *Shall have low moisture absorption and high electrical resistance where the external coating used is an electrically insulating type."*

(Page 1 of SOP 2-2160 is enclosed. The above referenced text is highlighted.)

TETLP's Standard Operating Procedure, SOP 2-2200 – *Application of Cathodic Protection*, dated 02/10/2017, states: "*For buried or submerged pipelines installed after July 31, 1971, a cathodic protection system shall be installed and placed into service as soon as possible but within one year of completion of installation.*

(Page 1 of SOP 2-2200 is enclosed. The above referenced text is highlighted.)

TETLP acknowledges that SOP 2-2160 and SOP 2-2200 were not provided during the inspection. However, TETLP contends these procedures demonstrate that TETLP's specifications do require each buried or submerged pipeline installed after July 31, 1971 must be protected against external corrosion as required by §192.455(a).

Based on the explanations above and the enclosed documentation, TETLP contends its procedures and specifications for the restriction of miter joints, determination of the design pressure of pipeline, and external corrosion control are compliant with applicable regulatory requirements. TETLP respectfully requests PHMSA withdraw the NOA in its entirety. If PHMSA does not consider this response and enclosed documentation adequate to withdraw the NOA, TETLP requests a telephonic hearing to be scheduled at a mutually agreeable time. TETLP looks forward to PHMSA's response.

Please call me at (713) 627-6388 if you need additional information.

Sincerely,

Rick Kivela
Manager, Operational Compliance

Enclosures