U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

8701 S. Gessner, Suite 630
Houston, TX 77074

NOTICE OF PROBABLE VIOLATION
PROPOSED CIVIL PENALTY
and
PROPOSED COMPLIANCE ORDER

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

March 5, 2019

Michele Harradence
VP Gas Transmission & Midstream Operations
Texas Eastern Transmission, LP
5400 Westheimer Court
Houston, Texas 77056

CPF 4-2019-1004

Dear Ms. Harradence:

On multiple dates beginning March 27, 2018 through December 13, 2018, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code (U.S.C.) inspected Texas Eastern Transmission, LP/Spectra Energy Partners, LP (Spectra) – West Pipeline and associated facilities in Texas, Louisiana, Arkansas, Illinois, Missouri and Ohio.

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. **§192.463 External corrosion control: Cathodic protection.**

(a) Each cathodic protection system required by this subpart must provide a level of cathodic protection that complies with one or more of the applicable criteria contained in Appendix D of this part. If none of these criteria is applicable, the cathodic protection system must provide a level of cathodic protection at least equal to that provided by compliance with one or more of these criteria.

Appendix D – Criteria for Cathodic Protection and Determination of Measurements

II. Interpretation of voltage measurement. Voltage (IR) drops other than those across the structural electrolyte boundary must be considered for valid interpretation of the voltage measurement in paragraphs A(1) and (2) and paragraph B(1) of Section I of the Appendix.

Spectra failed to provide an adequate level of cathodic protection on the Mexico to Santa Fe (approximately 55.736 miles), and the Charco to End of Line (approximately 70 miles) pipelines to meet the applicable criteria contained in Appendix D of Part 192.

PHMSA reviewed the annual cathodic protection monitoring records for the Mexico to Santa Fe, and the Charco to End of Line pipelines for the calendar years 2015, 2016, 2017 and 2018. The records show that the Appendix D criteria was not met for three inspection cycles for several test points. The annual survey records show that IR free readings failed to meet the negative 850 mV "ON" criteria and Spectra did not apply any other Appendix D criteria to determine adequacy of cathodic protection for these two pipelines.

Spectra's Standard Operating Procedure Number 2-2200 (12/19/2017), Section 3.0: -850 VDC "ON" Criterion states, "A negative (cathodic) potential of at least 0.850 V with the CP applied. This potential is measured with respect to a saturated copper/copper sulfate reference electrode contacting the electrolyte with the protective current applied. Voltage drops other than those across the structure-to-electrolyte boundary must be determined and appropriately compensated for valid interpretation of this voltage measurement."

2. **§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 7½ months, but at least twice each calendar year;

Spectra failed to conduct leakage surveys using leak detector equipment in a Class 3 location on Line 16 at intervals not exceeding 7½ months, but at least twice each calendar year.

During the April 2017 Class location survey, Spectra identified an increased number of trailers and other structures near their Line 16 (between station 1392+27 and 1430+15). The increased number of structures resulted in a reclassification of the Line from a Class 2 to a Class 3 location; however, Spectra did not adjust the leak survey frequency based on this Class location change.

Although Spectra was aware of the newly identified Class location upgrade in April of 2017, the company failed to include this section of pipeline for the leakage survey in September 2017. Further review revealed that this section of the pipeline was not leak surveyed until March 7, 2018. In the event such surveys were performed, the operator could not provide records of the inspection as required by §192.709(c) by failing to maintain the record of a survey required by the regulations.

3. §192.911 What are the elements of an integrity management program?

(l) A quality assurance process as outlined in ASME/ANSI B31.8S, section 12.

Spectra failed to follow their written Integrity Management Plan, Section 10, Rev 7 to complete a performance analysis. Spectra failed to analyze the results for 1.)satisfactory performance, 2,) failed to recommend changes to improve the integrity management program and 3.) failed to perform internal/external audits to review overall functioning of IMP performance.

1.) While reviewing the 2016 Annual Pipeline Integrity Performance Evaluation Report, PHMSA learned that Spectra failed to analyze the results from each Region for satisfactory performance on a business unit by business unit basis as described in their IMP, Section 10.5.4.2.

Spectra's IMP, Section 10.5.4.2: Performance Analysis states "The Pipeline Operational Risk Management Committee (PORMC) will analyze the results from each Region for satisfactory performance on a business unit by business unit basis. The analysis will include a determination whether specific results for each metric were achieved or not an identification of favorable or unfavorable trends that might be developing. The PORMC will make an overall Program performance evaluation and distribute these results in accordance with the Company's Internal Communications Plan."

2.) Spectra's 2016 Annual Pipeline Integrity Performance Evaluation Report failed to provide Program Enhancements based on multilevel review. Spectra failed to

document recommended program changes or corrective actions to improve IMP or monitored effectiveness of their implementation.

Spectra's IMP, Section 10.5.5.1: Developing Improvements states, "The PORMC will utilize results from its analysis to identify specific Program performance improvements. These improvements may be the result of exceptional performance achieved by a particular Region relative to one or more metrics or unsatisfactory performance on a similar scale. The PORMC analysis may identify the need for improvements in the Program, procedure, guideline or specification. The MOC process controls changes to procedure, guideline or specification.

3.) Spectra failed to perform an internal audit of the IMP during 2017. Spectra provided a draft copy of the 2016 annual Pipeline Integrity Performance Evaluation report which is deemed inadequate by the PHMSA inspection team. Further, as of today Spectra has not commissioned an external audit team to review the overall functioning of the Company's IMP and as a result no external audit was performed as required by their own procedure.

Spectra's IMP, Section 10.5.6.1: Internal Audits states, "The Director, Pipeline Integrity (Houston), will initiate an annual internal audit of the IMP. The audit team will forward its audit results to the Vice President, Transportation Services within ninety days of completing the audit. Internal audits are not required in those years' external audit occur.

Spectra's IMP, Section 10.5.6.2: External Audits states, "At intervals not to exceed three years, the Vice President, Transmission Services will commission an external audit team to review the overall functioning of the Company's IMP. The audit will review results for the lesser of the three pervious calendar years and the previous external audit. The audit team will forward its audit results to the Vice President, Transmission within thirty days of the completing its audit work.

4. §192.917 How does an operator identify potential threats to pipeline integrity and use the threat identification in its integrity program?

(b) Data gathering and integration. To identify and evaluate the potential threats to a covered pipeline segment, an operator must gather and integrate existing data and information on the entire pipeline that could be relevant to the covered segment. In performing this data gathering and integration, an operator must follow the requirements in ASME/ANSI B31.8S, section 4. At a minimum, an operator must gather and evaluate the set of data specified in Appendix A to ASME/ANSI B31.8S, and consider both on the covered segment and similar non-covered segments, past incident history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, internal inspection records, and all other conditions specific to each pipeline.

(c) Risk assessment. An operator must conduct a risk assessment that follows ASME/ANSI B31.8S, section 5, and considers the identified threats for each covered segment. An operator must use the risk assessment to prioritize the covered segments for the baseline and continual reassessments (§§192.919, 192.921, 192.937), and to determine what additional preventive and mitigative measures are needed (§192.935) for the covered segment.

Spectra failed to follow their written Integrity Management Plan, Section 13, Rev 7 by failing to gather, integrate existing data and validate the result of risk rankings as required by§192.917.

Spectra's IMP, Section 13.2 states the first step in performing a risk assessment is to identify which threat(s) exist within a covered segment. A review of each new or expanded HCA that identifies any HCA segments susceptible to any of the threats occurs once each calendar year, as part of the annual IMP update process.

Spectra's IMP, Section 13.3 states, "The next step in the Risk Assessment process is to determine the relative risk level for all threats identified in a covered segment. All nine threats identified in B31.8S use an algorithm based on failure likelihood to determine the relative risk level. Within each failure likelihood algorithm, each threat is assigned a weighting that is based on its expected contribution to the overall failure susceptibility. The Company refers to its Risk Algorithm Document (RAD) that defines the algorithms for each threat in more detail. This section provides a high level overview of the risk evaluation for each threat."

PHMSA inspectors reviewed Risk Algorithm Document (RAD), section 2.1: External Corrosion states, "There are two different methodologies employed in the calculation of external corrosion scores. Method 1 is used when there is no in-line inspection data available for the pipeline segment. Method 2 is used where in-line inspection data is available for the pipeline segment."

The PHMSA inspectors reviewed 2016 HCA risk ranking (run date: March 3, 2017) and selected HCA #7-00955L (DONA – NLRK segment) with a risk ranking of 34 and HCA #7-00955 (DONA – NLRK segment) with a risk ranking of 270 for further review.

Spectra stated that HCA #7-00955 was last assessed by in-line inspection (MFL/Deformation) in 2012 and Spectra did not use Method 2 to calculate external corrosion threat.

PHMSA inspectors further reviewed Spectra's External Corrosion (EC), Internal Corrosion (IC), Third Party Damage (TPD), and Construction Threat failure likelihood score on HCA #7-00955 and #7-00955L. Spectra could not explain risk calculations in their risk model, for example:

- External Corrosion: Spectra did not consider coating age factor of 10 for 1950 vintage pipe. Coating age is weighted 10% of baseline susceptible score;
- Internal Corrosion: Spectra indicated that they are in process of inputting data into the Risk Model and run the analysis related to internal corrosion threat;
- Third Party Damage Threat: The Modeled Impact Frequency Score ("F in the Hit Susceptibility Equation) (1-10) is not consistent with Risk Algorithm Document (RAD), section 2.3. Spectra has not performed depth of cover survey for 1950 vintage pipeline and selected 2.99 feet of cover by default; and
- The risk score calculation spreadsheet provided for Construction threat is not consistent with Risk Algorithm Document (RAD). Spectra failed to integrate the data into RAD.

Spectra failed to correct errors in the input data of the Risk Model. Spectra's SMEs did not complete the review of Risk Model output data and did not validate the risk rankings consistent with §192.917.

5. **§192.935 What additional preventive and mitigative measures must an operator take?**

(a) *General requirements.* An operator must take additional measures beyond those already required by Part 192 to prevent a pipeline failure and to mitigate the consequences of a pipeline failure in a high consequence area. An operator must base the additional measures on the threats the operator has identified to each pipeline segment. (*See* §192.917) An operator must conduct, in accordance with one of the risk assessment approaches in ASME/ANSI B31.8S (incorporated by reference, *see* §192.7), section 5, a risk analysis of its pipeline to identify additional measures to protect the high consequence area and enhance public safety. Such additional measures include, but are not limited to, installing Automatic Shut-off Valves or Remote Control Valves, installing computerized monitoring and leak detection systems, replacing pipe segments with pipe of heavier wall thickness, providing additional training to personnel on response procedures, conducting drills with local emergency responders and implementing additional inspection and maintenance programs.

(c) Automatic shut-off valves (ASV) or Remote control valves (RCV). If an operator determines, based on a risk analysis, that an ASV or RCV would be an efficient means of adding protection to a high consequence area in the event of a gas release, an operator must install the ASV or RCV. In making that determination, an operator must, at least, consider the following factors--swiftness of leak detection and pipe shutdown capabilities, the type of gas being transported, operating pressure, the rate of potential release, pipeline profile, the potential for ignition, and location of nearest response personnel.

Spectra did not identify and take additional preventative and mitigative (P&M) measures to mitigate the consequences of a pipeline failure in a High Consequence Area (HCA) as required by §192.935.

During the inspection, Spectra provided a technical documentation to define the company's methodology for determining the location of remote control valves (RCV) for the purpose of improving response time and minimizing consequences of pipeline emergencies. This methodology is applicable to both existing facilities and new construction as well as applies to both covered and non-covered segments.

When the PHMSA inspector requested to review the finalized list of the RCV site candidates, it was found that Spectra considered and addressed only the Priority 1 RCV selection criteria. According to Spectra's methodology for selection of RCV sites, Priority 1 is valve sites isolating Class 3 or High Consequence Area (HCA) with a response time greater than 2 hours. Spectra failed to provide documentation showing they conducted analysis that considers swiftness of leak detection and pipe shutdown capabilities, the types of gas being transported, operating pressure, the rate of potential release, pipeline profile and the potential for ignition. In addition, Spectra did not consider the factors beyond immediate injury such as: prolonged flame exposure to emergency responders and public, danger to people caught in difficult to evacuate areas, impact on key transportation corridors, and the risk of wildfires.

Proposed Civil Penalty

Under 49 U.S.C. § 60122 and 49 CFR § 190.223, you are subject to a civil penalty not to exceed $213,268 per violation per day the violation persists, up to a maximum of $2,132,679 for a related series of violations. 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. For violations occurring prior to November 2, 2015, the maximum penalty may not exceed $200,000 per violation per day, with a maximum penalty not to exceed $2,000,000 for a related series of violations. The Compliance Officer has reviewed the circumstances and supporting documentation involved in the above probable violation(s) and has recommended that you be preliminarily assessed a civil penalty of $75,600 as follows:

Item number	PENALTY
1	$75,600

Warning Item

With respect to item 2 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 this item. Failure to do so may result in additional enforcement action.

Proposed Compliance Order

With respect to items 1, 3, 4, and 5 pursuant to 49 U.S.C. § 60118, the Pipeline and Hazardous Materials Safety Administration proposes to issue a Compliance Order to Texas Eastern Transmission, LP (Spectra Energy Partners, LP). 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 Compliance Proceedings*. Please refer to this document and note the response options. Be advised that all material you submit in response to this enforcement action is subject to being 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 4-2019-1004** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

Mary L. McDaniel, P.E.
Director, Southwest Region
Pipeline and Hazardous Materials Safety Administration

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

PROPOSED COMPLIANCE ORDER

Pursuant to 49 U.S.C. § 60118, the Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to issue to Texas Eastern Transmission, LP (Spectra Energy Partners, LP) a Compliance Order incorporating the following remedial requirements to ensure the compliance of Texas Eastern Transmission, LP (Spectra Energy Partners, LP with the pipeline safety regulations:

1. In regard to the Item Number 1 of the Notice pertaining to inadequate cathodic protection per § 192.463 requirements, Spectra must test, evaluate and where necessary, enhance their cathodic protection system to comply with Appendix D criteria and submit to the Southwest Region office adequate documentation to demonstrate the compliance.

2. In regard to the Item Number 3 of the Notice pertaining to failure to follow a quality assurance process outlined in ASME/ANSI B31.8S, Section 12 as required by §192.911(l) and section 10 of their IMP plan, Spectra must analyze the result from each region for satisfactory performance on a business unit by business unit basis; identify specific program performance improvements; and determine the need for improvements in their program, procedures, guidelines or specifications and provide program enhancements based on multilevel review. In addition, Spectra must conduct an internal annual audit as well as commission an external audit team to review the overall functioning of their IMP as required by their procedures.

3. In regard to Item Number 4 of the Notice pertaining to data gathering, integration and risk assessment, Spectra must ensure the data for the Risk Model is accurate for all pipelines that impact a high consequence area. Spectra must ensure their risk rankings are logical and consistent with industry's practice.

4. In regard to Item Number 5 of the Notice pertaining to §192.935, Spectra must conduct an evaluation/risk analysis of its pipelines to determine if automatic shut - off valves (ASV) or remote control valves (RCV) would be an efficient means of adding protection to each high consequence area in an event of a release of gas to reduce the risks. This study must consider factors such as swiftness of leak detection and pipe shutdown capabilities, the type of gas being transported, operating pressure, the rate of potential release, pipeline profile, the potential for ignition, and location of nearest response personnel. The study should also consider factors beyond immediate injury such as: prolonged flame exposure to emergency responders and public, danger to people caught in difficult to evacuate areas, impact on key transportation corridors, and the risk of wildfires.

5. Spectra must complete these items within 90 days following the Final Order,

4. It is requested (not mandated) that Texas Eastern Transmission, LP (Spectra Energy Partners, LP maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Mary McDaniel, Director, Southwest 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.