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J. A. (Andy) Drake, P.E.
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April 18, 2013

Mr. Wayne Lemoi
Director, Southern Region
Pipeline and Hazardous Materials Safety Administration
233 Peachtree Street
Suite 600
Atlanta, Georgia 30303

**Re: East Tennessee Natural Gas LLC
Notice of Amendment
CPF 2-2013-1003M**

Dear Mr. Lemoi:

From June 11, 2012 to June 21, 2012, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Southern Region, Office of Pipeline Safety, inspected the procedures relating to the East Tennessee Natural Gas, LLC (ETNG) Integrity Management Program (IMP). On the basis of the inspection, PHMSA identified three (3) apparent inadequacies in ETNG's written IMP procedures, and issued a Notice of Amendment (NOA) dated March 20, 2013.

ETNG has reviewed the issues raised in the NOA and will not be contesting PHMSA's findings. This letter, with the enclosed revised procedures, is ETNG's response to the NOA.

1. **§192.917 How does an Operator identify potential threats to pipeline integrity and use the threat identification in its integrity program?**
 - (a) ***Threat Identification.*** An operator must identify and evaluate all potential threats to each covered pipeline segment. Potential threats that an operator must consider include, but are not limited to, the threats listed in ASME/ANSI B31.8S (incorporated by reference, *see* §192.7), section 2, which are grouped under the following four categories:

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PHMSA Finding

ETNG's written Integrity Management Program (IMP) did not require the adequate evaluation of manufacturing threats¹ with regards to increases in historical operating pressures for certain covered pipeline segments susceptible to increases in pressure.

ETNG's *Integrity Management Program Threat Response Guidance Documents Manufacturing: Section Number 440, Appendix A, Figure 3-1* did not clearly require that certain pipe having a potential manufacturing threat be prioritized as high risk and scheduled for an assessment in accordance with §192.917(e)(3)(i) if it experiences an increase above the maximum operating pressure during the five years preceding the identification of a high consequence area (HCA); i.e. the 5-year MOP. Figure 3-1 stated for manufactured pipe made of certain materials susceptible to increases in internal pressure that has not been hydrotested to at least 1.25 MAOP, "unless there are near term plans to operate at pressures above the historic operating pressure, the manufactured pipe materials are deemed stable with respect to circumferential functional loadings, and no further integrity assessment required unless operating pressure increase." That is, the procedure did not clearly explain that any increase in pressure above the 5-year MOP, regardless of the amount of increase, would require that the applicable segment be prioritized as a high risk for integrity assessment.

ETNG Response

ETNG had interpreted the regulations to allow some tolerance above the 5-year MOP for short duration pressure excursions, where the operating pressure quickly returned to a level lower than the 5-year MOP. In the risk assessment analysis, ETNG had applied a 4% tolerance, consistent with allowable overpressure protection requirements of §192.201, which require overpressure protection devices to be set at a pressure not to exceed 110% of MAOP or 75% of SMYS, whichever is lower. (The 4% tolerance was based on the ratio 75%/72% for Class 1 design.) Most of the pressure excursions above the 5-year MOP experienced on the ETNG system were small (10 psig or less), and technically did not present a significant threat to the pipeline.

ETNG recognizes that PHMSA's interpretation and FAQ guidance does not provide for a tolerance, as had been applied by ETNG, and that any pressure increase above the 5-year MOP would trigger the requirement to classify the covered segment(s) as high risk and schedule an assessment. Accordingly, ETNG has revised its IMP Threat Response Guidance (TRG) Document, Section 440, *Manufacturing*, to clarify the requirement that any covered segment that experiences a pressure increase for any duration above the 5-year MOP must be classified as high relative risk and scheduled for an assessment. A redlined version of ETNG's TRG Document, Section 440, *Manufacturing*, highlighting these revisions is enclosed for your review.

2. §192.921 How is the baseline assessment to be conducted?

¹ ETNG includes in the category pipe with a joint factor less than 1, low-frequency ERW pipe, flash welded pipe, pipe with a material related in-service failure, or other pipe in the opinion of ENTG's subject matter expert.

(a) Assessment methods. An operator must assess the integrity of the line pipe in each covered segment by applying one or more of the following methods depending on the threats to which the covered segment is susceptible. An operator must select the method or methods best suited to address the threats identified to the covered segment (See §192.917).

...(4) Other technology that an operator demonstrates can provide an equivalent understanding of the condition of the line pipe. An operator choosing this option must notify the Office of Pipeline Safety (OPS) 180 days before conducting the assessment, in accordance with §192.949...

PHMSA Finding

ETNG considered the threat of near-neutral pH stress corrosion cracking (SCC) to exist on its pipeline system and had a written procedure² in its IMP to complete Stress Corrosion Cracking Direct Assessments (SCCDA). However, ETNG did not have a written procedure that required it to notify the Office of Pipeline Safety (OPS) about its planned use of SCCDA as a baseline assessment method. SCCDA is an “other technology” in the integrity management regulations that requires the operator to notify OPS 180 days before conducting a baseline assessment using this method.

ETNG Response

The regulations under §192.929 do not explicitly state that SCCDA is an “other technology” when used for SCCDA. However, ETNG recognizes that PHMSA considers this to be an “other technology” in the particular case of SCCDA for near-neutral cracking. As an “other technology”, PHMSA requires a 180-day notice prior to using SCCDA for near-neutral pH SCC. Accordingly, ETNG has revised its IMP Threat Response Guidance (TRG) Document, Section 430, *Stress Corrosion Cracking*,³ to require a 180-day notification to PHMSA prior to using SCCDA as an assessment method for near-neutral pH SCC (see Section 10). Other miscellaneous revisions are also included in this document. A redlined version of ETNG’s TRG Document, Section 430, *Stress Corrosion Cracking*, highlighting these revisions is enclosed for your review.

The SCCDA program described above is consistent with the guidance provided in the American Society of Mechanical Engineers (ASME), B31.8S, *Managing System Integrity of Gas Pipelines*, 2012 Edition. This Edition provides clear guidance for conducting SCCDA for both high pH and near-neutral pH SCC. ETNG acknowledges that the Edition of the ASME B31.8S (2004), currently recognized by PHMSA, was written only with high-pH SCC consideration and that the provisions for near neutral SCC were not adopted by the ASME B31.8S group until later editions were published.

SCCDA is based on the concept of assessing for SCC in the locations where SCC is most likely to occur. The ETNG SCCDA procedures evaluate both near neutral and high-pH SCC mechanisms and identify using risk assessment methods. Site selection for SCCDA excavations are based on the optimal attributes (stress level, coating types, temperature conditions, soil characteristics, drainage,

² Stress Corrosion Cracking Direct Assessment (SCCDA) Procedure Number: 9-2040

³ ETNG has determined IMP 430 is the appropriate document for the notification requirement.

etc.) for the particular mechanism. SCCDA excavations sites are selected in a manner that would serve as valid assessments for either SCC mechanism.

3. §192.937 What is a continual process of evaluation and assessment to maintain a pipeline's integrity?

...(c) *Assessment methods.* In conducting the integrity reassessment, an operator must assess the integrity of the line pipe in the covered segment by any of the following methods as appropriate for the threats to which the covered segment is susceptible (see §192.917), or by confirmatory direct assessment under the conditions specified in §192.931.

...(4) Other technology that an operator demonstrates can provide an equivalent understanding of the condition of the line pipe. An operator choosing this option must notify the Office of Pipeline Safety (OPS) 180 days before conducting the assessment, in accordance with §192.949. An operator must also notify a State or local pipeline safety authority when either a covered segment is located in a State where OPS has an interstate agent agreement, or an intrastate covered segment is regulated by that State.

PHMSA Finding

ETNG considered the threat of near-neutral-pH stress corrosion cracking (SCC) to exist on its pipeline system and had a written procedure⁴ in its IMP to complete Stress Corrosion Cracking Direct Assessments (SCCDA). However, ETNG did not have a written procedure that required it to notify the Office of Pipeline Safety (OPS) about its planned use of SCCDA as a continual assessment method. SCCDA is an "other technology" in the integrity management regulations that requires the operator to notify OPS 180 days before conducting a continual assessment using this method.

ETNG Response

As noted in Item 2 above, ETNG has revised its TRG Document, Section 430, *Stress Corrosion Cracking*, to require notification to PHMSA 180 days prior to conducting SCCDA as a baseline assessment method for near-neutral SCC. The revisions specify this notification requirement also applies to reassessments. A redlined version of ETNG's TRG Document, Section 430, *Stress Corrosion Cracking*, highlighting these revisions is enclosed for your review.

This completes our response to the NOA. We trust that you will find these revisions fully address the issues described in the NOA.

⁴ Stress Corrosion Cracking Direct Assessment (SCCDA) Procedure Number: 9-2040

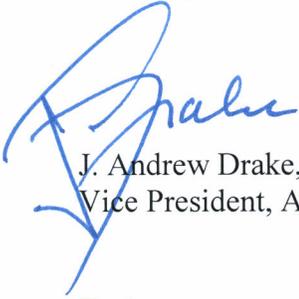
CPF 2-2013-1003M

April 18, 2013

Page 5 of 5

If you need additional information, please contact Rick Kivela at (713) 627-6388.

Sincerely,



J. Andrew Drake, P.E.

Vice President, Asset Integrity

Enclosures

Cc (w/enclosures; via electronic mail):
Dallas Rea