



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

233 Peachtree Street Ste. 600
Atlanta, GA 30303

WARNING LETTER

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

March 19, 2013

Mr. Theopolis Holeman
Group Vice President of U.S. Operations
East Tennessee Natural Gas Company
5400 Westheimer Court
Houston, TX 77056

CPF 2-2013-1002W

Dear Holeman:

From May 21, 2012, to October 25, 2012, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Southern Region, Office of Pipeline Safety, pursuant to Chapter 601 of 49 United States Code, inspected East Tennessee Natural Gas Company (ETNG) records and facilities at ETNG's Houston headquarters office and in Tennessee and Virginia. ETNG is a subsidiary of Spectra Energy Corporation.

As a result of the inspection, it appears that ETNG has committed probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations. The items inspected and the probable violations are as follows:

1. § 192.609 Change in class location: Required study.

Whenever an increase in population density indicates a change in class location for a segment of an existing steel pipeline operating at a hoop stress that is more than 40 percent of SMYS, or indicates that the hoop stress corresponding to the established maximum allowable operating pressure for a segment of existing pipeline is not commensurate with the present class location, the operator shall immediately make a study to determine;

(a) The present class location for the segment involved.

ETNG did not immediately make a study to determine the present class location of a pipeline segment when an increase in population density occurred along its existing steel pipeline operating at a hoop stress of more than 40 percent of the specified minimum yield strength (SMYS).

Class location field reports show that ETNG conducted a class location field survey of the Samick Music Company office building when the building was under construction in December 2006. ETNG did not, however, provide any evidence to show that it made an immediate class location study of the population density increase along a ± 785 -ft segment of its Line 3100-1 in Gallatin, TN, caused by the Samick Music Company warehouse at 1329 Gateway Drive, Gallatin, TN. In fact, an ETNG memorandum conveyed that the above-referenced change to a Class 3 location¹ near the Samick warehouse occurred as part of a class location change on Line 3100-1 between stations 314+73 and 372+14 on July 7, 2009 (the date of the memorandum) - not circa September 2007.

PHMSA's inspector interviewed the Samick Music Company credit manager on site on September 6, 2012, and again via telephone on December 18, 2012. The manager stated that the warehouse had been occupied since September 2007 with at least 20 employees who worked for 5 days per week for more than 10 weeks per year.² That is, the Samick Music Company warehouse at 1329 Gateway Dr., Gallatin, TN, met the Class 3 location occupancy and location criteria circa September 2007 but ETNG did not make a class location study of the population density increase until July 7, 2009; i.e. ~ 22 months after the population density first increased along the pipeline.

2. § 192.611 Change in class location: Confirmation or revision of maximum allowable operating pressure.

... (d) Confirmation or revision of the maximum allowable operating pressure that is required as a result of a study under §192.609 must be completed within 24 months of the change in class location. Pressure reduction under paragraph (a) (1) or (2) of this section within the 24-month period does not preclude establishing a maximum allowable operating pressure under paragraph (a)(3) of this section at a later date.

ETNG did not confirm or revise the maximum allowable operating pressure (MAOP) of a segment of Line 3100-1 in Gallatin, TN, within 24 months of a change in class location.

A change to a Class 3 location occurred along a ± 785 -ft segment of ETNG's Line 3100-1 in Gallatin, TN, circa September 2007 due to the Samick Music warehouse (see Item 1 above). According to ETNG's records, the hoop stress corresponding to the established MAOP of approximately 470 feet of pipe within the referenced class change segment was not commensurate with the present Class 3 location. While ETNG replaced the segment with pipe complying with the MAOP requirements of §192.619(a), it did not do so until May 2011, more than 19 months after the allowed 24-month time period had expired and more than 43 months after the change in class location.

3. § 192.907 What must an operator do to implement this subpart?

(a) General. No later than December 17, 2004, an operator of a covered pipeline segment must develop and follow a written integrity management program

¹ See §192.5(b) for definitions of class locations

² See §192.5(b)(3)(ii)

ETNG did not follow its written integrity management (IM) program because it did not excavate the pipeline within the time period specified in its written IM procedures.

ETNG's written IM procedure Stress Corrosion Cracking Direct Assessment (SCCDA) Procedure Number: 9-2040 (10/17/2011), Section 6.3.2 states, "*If Category 1 SCC is found in an excavation, additional integrity assessment(s) will be undertaken within 12 months at the most suitable site within the limits of the HCA [High Consequence Area]...*"

Notwithstanding the above procedure, ETNG discovered a Category 1 high-ph stress corrosion crack (SCC) on its Dixon Springs Discharge Line 3100-1 on September 22, 2009, in a non-HCA area but did not conduct an additional excavation within 12 months of finding the Category 1 SCC. ETNG conducted an additional SCC excavation within the limits of an HCA (as required by SOP 9-2040) on October 5, 2011; 1 year and 13 days after the required excavation date.

4. **§ 192.917 How does an operator identify potential threats to pipeline integrity and use the threat identification in its integrity program?**
- ... (e) **Actions to address particular threats. If an operator identifies any of the following threats, the operator must take the following actions to address the threat.**
- ... (3) **Manufacturing and construction defects. If an operator identifies the threat of manufacturing and construction defects (including seam defects) in the covered segment, an operator must analyze the covered segment to determine the risk of failure from these defects. The analysis must consider the results of prior assessments on the covered segment. An operator may consider manufacturing and construction related defects to be stable defects if the operating pressure on the covered segment has not increased over the maximum operating pressure experienced during the five years preceding identification of the high consequence area. If any of the following changes occur in the covered segment, an operator must prioritize the covered segment as a high risk segment for the baseline assessment or a subsequent reassessment.**
- (i) Operating pressure increases above the maximum operating pressure experienced during the preceding five years;**

ETNG did not adequately identify and properly use potential threats to each covered pipeline segment in its integrity program because it failed to address particular threats related to manufacturing.

Table I below shows data provided by ETNG. The 29 covered segments listed in the table were identified by ETNG as having materials known to be possible manufacturing threats and as being susceptible to increases in pressure, including pipe with low frequency electric resistance welded (LF ERW) longitudinal seams.

Table I

Discharge	Line	MAOP	5 YR MOP	5 YR MOP Timestamp	Excursion Year (Max Pressure, psi)	HCA No.	Orig HCA	LF ERW or	Year of Pipe	Length	125% Test	year of test	Diameter	WT	Grade	Stress @	Length of	Comments
BOYDS CREEK FLATWOODS	3300-1	706	704	1/30/03 2:00	2008 (705), 2007 (706), 2006 (705)	5-00341	2004	YES	1953	2830	N		16	0.250	42000	53.8%	2830	1976 test covers the 1193' of 1976 pipe which is not susceptible
						5-00146	2004	YES	1953	2672	N	1976	16	0.250	52000	0.0%	1479	
						5-00472	2006	YES	1953	1299	Y / N	2008	16	0.250	42000	0.0%	1267	
						5-00473	2006	YES	1953	960	N		16	0.250	42000	0.0%	739	111' of susceptible pipe not tested on ends of HCA
						5-00147	2004	YES	1953	1846	N		16	0.250	42000	0.0%	1846	
						5-00383	2005	YES	1953	2207	N		16	0.250	42000	0.0%	2207	
						5-00143	2004	YES	1971 / 1953	4868	N		16	0.250	42000	53.8%	4826	
GLADE SPRING	3300-1	924	921	10/14/03 5:00	2009 (923), 2008 (926), 2007 (925)	5-00187	2004	YES	1964	1339	N		8.625	0.188	42000	50.5%	1339	
LEWISBURG	3200-1	823	819	1/29/03 17:00	2011 (832), 2010 (840), 2009 (821), 2008 (832), 2007 (832), 2006 (830)	5-02101	2007	YES	1950	1130	N		12.75	0.25	42000	50.0%	1061	
LEWISBURG	3206A-100	823	819	1/29/03 17:00	2008 (828), 2007 (829), 2006 (826)	5-00291	2004	YES	1950	1082	N		4.5	0.188	42000	23.5%	1082	
						5-00173	2004	YES	1951	570	N		4.5	0.188	35000	0.0%	567	
						5-00174	2004	YES	1951	1832	N		4.5	0.188	35000	0.0%	1806	
						5-00210	2004	YES	1950	1140	N		12.75	0.25	42000	54.6%	1140	
LOBELVILLE	3203A-800	670	611	4/9/06 8:35	2007 (569), 2006 (611)	5-00211	2004	YES	1950	792	N		12.75	0.25	42000	0.0%	792	
						5-00212	2004	YES	1950,	3416	N		12.75	0.25	42000	0.0%	3316	
						5-00213	2004	YES	1950	1526	N		12.75	0.25	42000	0.0%	1526	
LOBELVILLE	3203A-800	670	611	4/9/06 8:35	2007 (569), 2006 (611)	5-00152	2004	YES	1953	185	N		3.5	0.216	35000	15.5%	185	
MADISONVILLE	3200-1	610	610	3/28/02 3:14	2010 (624), 2006 (614)	5-00219	2004	YES	1950 / 1976	2719	Y		12.75	0.25	42000	37.0%	2690	125%MAOP post construction gas test
TOPSIDE	3300-1	640	640	4/7/06 17:15	2010 (642)	5-00273	2004	YES	1953	1732	N		16	0.25	42000	48.8%	1732	
						5-00274	2004	YES	1953	1890	N		16	0.25	42000	0.0%	1890	
						5-02994	2010	YES	1953	971	N		16	0.25	42000	0.0%	971	
OOLTEWAH	3200-1	649	649	1/30/04 3:15	2010 (662), 2009 (657), 2007 (657), 2006 (657), 2005 (655)	5-00232	2004	YES	1950	1193	Y		12.75	0.25	42000	0.0%	1193	125%MAOP post construction gas test
						5-03542	2012	YES	1950	898	Y		12.75	0.25	42000	0.0%	898	125%MAOP post construction gas test
						5-00284	2004	YES	1950	1241	Y		16	0.281	35000	0.0%	1241	125%MAOP post construction gas test
WARTBURG	3100-1	773	724	7/9/04 15:15	2011 (735), 2010 (734), 2009 (737), 2008 (730)	5-00286	2004	YES	1950	1315	Y		16	0.281	35000	0.0%	1315	125%MAOP post construction gas test
						5-00425	2005	YES	1950	866	Y		16	0.281	35000	0.0%	866	125%MAOP post construction gas test
						5-00250	2004	YES	1965	2096	N		8.625	0.188	42000	0.0%	1695	
RURAL RETREAT	3300-1	915	914	1/18/03 14:00	2006 (919)	5-00251	2004	YES	1965	2724	N		8.625	0.219	42000	0.0%	2724	
						5-00253	2004	YES	1965	3163	N		8.625	0.188	42000	0.0%	1716	

Discussions with ETNG's subject matter experts on June 20, 2012, and information provided to the PHMSA inspector subsequent to the inspection revealed that ETNG treated the covered segments listed in Table I as stable manufacturing-related threats, and

did not prioritize them as high risk segments for a baseline assessment or a subsequent reassessment.

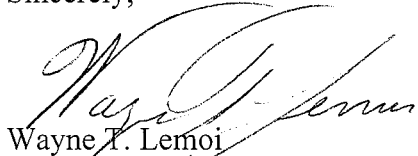
ETNG used the wrong criteria in evaluating pressure increases. The covered segments in the table experienced operating pressure increases above the maximum operating pressure during the five years preceding the identification of an HCA (5-year MOP). As such, these segments should have been prioritized as high risk segments for the baseline assessment or a subsequent reassessment. But ETNG based its criteria for identifying and prioritizing covered segments as high risk requiring additional assessment on exceeding 104% of the 5-year MOP. In fact, in its November 08, 2012, response, ETNG stated, *"None of the HCA segments with an established 5-year MOP exceeded the 4% threshold. Thus the affected HCA segments had not been scheduled for an assessment or reassessment."*

In essence, by adding a 4% margin to the 5-year MOP ETNG missed at least 29 covered segments that should have been identified and prioritized as high risk segments and subjected to additional actions to address the threat in baseline assessments or subsequent reassessments.

Under 49 United States Code, § 60122, you are subject to a civil penalty not to exceed \$200,000 per violation per day the violation persists up to a maximum of \$2,000,000 for a related series of violations. For violations occurring prior to January 4, 2012, the maximum penalty may not exceed \$100,000 per violation per day, with a maximum penalty not to exceed \$1,000,000 for a related series of violations. 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 correct the items identified in this letter. Failure to do so will result in East Tennessee Natural Gas Company being subject to additional enforcement action.

No reply to this letter is required. If you choose to reply, in your correspondence please refer to **CPF 2-2013-1002W**. 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).

Sincerely,



Wayne T. Lemoj
Director, Office of Pipeline Safety
PHMSA Southern Region