



RECEIVED MAR 27 2017

Enbridge
5400 Westheimer Court
Houston, Texas 77056

March 24, 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: Algonquin Gas Transmission, L.L.C. Response
Warning Letter
CPF 1-2017-1005W**

Dear Mr. Burrough,

From November 2 to 6, 2015, representatives from the Pipeline Hazardous Material Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code, inspected the Algonquin Gas Transmission, L.L.C's (AGT), a subsidiary of Spectra Energy Partners, LP, (SEP¹) Boston/Westwood Division Office Unit #1931 in Westwood, MA.

On February 27, 2017, PHMSA issued the above referenced Warning letter alleging one (1) probable violation of the pipeline safety regulations. The Warning letter reads as follows: "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. The item inspected and the probable violation is:"

1. § 192.605 Procedural manual for operations, maintenance, and emergencies

PHMSA Finding

Spectra failed to follow its written procedure 2-2200, *Application of Protection Criteria* by failing to investigate areas with indications of over voltage that could potentially lead to cathodic disbondment of the coating and/or hydrogen embrittlement of the steel pipe.

Spectra 2-2200, *Application of Protection Criteria*, dated 4/30/2014, Section 7.0, *Over Voltage*, states in part:

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 Algonquin Gas Transmission, L.L.C.

“Cathodic protection levels which are “too high” (over voltage) may cause damage to the pipeline coating and to the pipe itself.

7.1 As a guideline, polarized potentials should be maintained more positive than -1.2 to -1.5 VDC in order to minimize the possibility of cathodic disbondment of the coating and hydrogen embrittlement of the steel

7.4 The results of bell hole examinations along with the pipe-to-soil potential measurements taken before and during the examination should be reviewed to determine whether over voltage is a concern for the pipeline segment if polarized potentials more negative than -1.2 VDC are identified. If over-voltage is determined to be a problem, then the magnitude of the influencing current must be reduced and possibly additional cathodic protection sources established so as to more uniformly distribute the CP current”.

During the inspection, the PHMSA inspector reviewed Annual Survey Records from 2013 to November 2015 for the Q System pipelines located in the Westwood, MA operating area. The records show that in 2014 there were 12 test stations along the Q-1 pipeline which had IFR (IR Free) polarized pipe-to-soil potentials ranging from -1.5 V to negative -2.647 V. Field measurements taken during the inspection of some test stations and recorded “Off” polarized potentials more negative than -1.5V.

No documentation was provided to demonstrate that these indications of potential over voltage had been investigated to determine if they are a concern to the pipeline segment.

AGT Response

AGT acknowledges that twelve (12) areas on the Q-1 pipeline had “Off” polarized potentials more negative than -1.5V, and a review was not conducted to determine if over-voltage was a concern for the pipeline segment. Following PHMSA’s inspection, AGT revised SOP 2-2200 to clarify the potential risks of over-voltage and the required action if a potential over-voltage condition is observed. The revised SOP now states:

As a guideline, polarized potentials that could result in excessive generation of atomic hydrogen should be avoided. As a guide for susceptible steel, such as high strength steels of grade X-70 and above, limit elevated polarized potentials to minimize the possibility of cathodic disbondment of coating and/or hydrogen embrittlement of susceptible steel. In some cases, further investigation may be warranted to determine if elevated polarized potentials are indeed an issue.

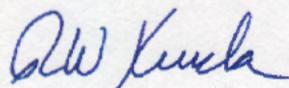
Additionally, the revised SOP makes it clear that action is required if a potential over-voltage condition is observed, by stating “[c]onsult with the Region Technical Staff to determine if further investigation is required.” Finally, AGT has also implemented process controls to

assure corrosion technicians are aware of the revised guideline for over-voltage in revised section of SP 2-2200.

TETLP takes this finding seriously, and we have already implemented corrective actions prior to receiving the Warning Letter.

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

Sincerely,

A handwritten signature in blue ink that reads "Rick Kivela". The signature is written in a cursive, flowing style.

Rick Kivela
Director, Operational Compliance