July 28, 2016

Mr. Vern Meier  
Vice President Field Operations  
TC Oil Pipeline Operations, Inc.  
717 Texas Avenue  
Houston, TX 77002

CPF 4-2016-5025M

Dear Mr. Meier:

On May 3-4, 2016, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected procedures at pump station facility in Liberty County, TX and various mainline valve (MLV) stations along pipeline route from Liberty County, TX to Houston Tank Terminal in Houston, TX.

As a result of the inspection, PHMSA has identified the apparent inadequacies found within TC’s plans or procedures as described below:

1. §195.402 Procedural manual for operations, maintenance, and emergencies

    (a) General. Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline system commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.
§195.434 Signs

(a) Each operator must maintain signs visible to the public around each pumping station and breakout tank area. Each sign must contain the name of the operator and a telephone number (including area code) where the operator can be reached at all times.

The operator’s current procedure (TransCanada O&M Manual – U.S. Hazardous Liquids Pipelines, 195.434 Signs, Section 3 and 4) is not adequate for signs. The Operator must amend their procedures to address the requirements of §195.434. More specifically, TransCanada must state how compliance will be achieved including the placement and spacing of the signs.

2. §195.402 Procedural manual for operations, maintenance, and emergencies

(a) General. Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline system commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

§195.410 Line markers

(a) Except as provided in paragraph (b) of this section, each operator shall place and maintain line markers over each buried pipeline in accordance with the following:

(1) Markers must be located at each public road crossing, at each railroad crossing, and in sufficient number along the remainder of each buried line so that its location is accurately known.

The operator’s current procedure (TransCanada O&M Manual – U.S. Hazardous Liquids Pipelines, 195.410 Line Markers, Section 3) need to include detail procedures for line markers addressing the requirements in Appendix U, PHMSA Special Conditions #19a and #40. TransCanada agreed to comply with these special conditions and must include the requirements in their O&M procedures, including additional protective marking when the 48-inches of cover are not maintained and line-of-sight marking where required by the conditions.

Appendix U, PHMSA Special Conditions:
19) **Depth of Cover:** Keystone shall construct the pipeline with soil cover at a minimum depth of forty-eight (48) inches in all areas, except in consolidated rock. The minimum depth in consolidated rock areas is thirty-six (36) inches. Keystone shall maintain a depth of cover of 48 inches in cultivated areas and a depth of 42 inches in all other areas. In cultivated areas where conditions prevent the maintenance of forty-eight (48) inches of cover, Keystone must employ additional protective measures to alert the public and excavators to the presence of the pipeline. The additional measures shall include:

a) Placing warning tape and additional line-of-sight pipeline markers along the affected pipeline segment,

40) **Pipeline Markers:** Keystone must install and maintain line-of-sight markings on the 22 pipeline except in agricultural areas or large water crossings such as lakes where line of sight signage is not practical. The marking of pipelines may also be subject to environmental permits and local restrictions. Additional markers must be placed along the pipeline in areas where the pipeline is buried less than forty-eight (48) inches. Keystone must replace removed or damaged line-of-sight markers, during pipeline patrols and maintenance on the right-of-way. Keystone, at a minimum, must identify and replace any missing or damaged line-of-sight markers during pipeline patrols (Condition 41). If pipeline patrolling for Condition 41 is performed via aerial patrolling and cannot consistently identify areas with missing or damaged line-of-sight markers, then Keystone must on a calendar year basis, not to exceed fifteen (15) months, conduct ground patrols.

It is requested (not mandated) that TC Oil Pipeline Operations, Inc. maintain documentation of the safety improvement costs associated with fulfilling this Notice of Amendment (preparation/revision of plans, procedures) and submit the total to R. M. Seeley, Director, Southwest Region, Pipeline and Hazardous Materials Safety Administration. In correspondence concerning this matter, please refer to **CPF 4-2016-5025M** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

R. M. Seeley
Director, Southwest Region
Pipeline and Hazardous Materials Safety Administration

Enclosure: *Response Options for Pipeline Operators in Compliance Proceedings*