



U.S. Department  
of Transportation

**Pipeline and  
Hazardous Materials Safety  
Administration**

8701 South Gessner, Suite 1110  
Houston, TX 77074

## NOTICE OF AMENDMENT

### CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 24, 2012

Mr. Pete Schwiering  
President of SemCrude  
SemGroup  
6120 S. Yale Ave.,  
Suite 650  
Tulsa, OK 74136

**CPF 4-2012-5002M**

Dear Mr Schwiering:

On November 14-19, 2010, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected SemGroup procedures for Integrity Management in Oklahoma City, OK.

On the basis of the inspection, PHMSA has identified the apparent inadequacies found within SemGroup's plans or procedures, as described below:

**1. §195.452 Pipeline integrity management in high consequence areas.**

**(f) What are the elements of an integrity management program? An integrity management program begins with the initial framework. An operator must continually change the program to reflect operating experience, conclusions drawn from results of the integrity assessments, and other maintenance and surveillance data, and evaluation of consequences of a failure on the high consequence area. An operator must include, at minimum, each of the following elements in its written integrity management program:**

- (1) A process for identifying which pipeline segments could affect a high consequence area;**

The team reviewed the process used to calculate the volume spilled at points along the pipeline.

The spill volume calculation considered drain down from the pipeline and assumed that the closest valves to the point of the spill are closed within 2 hrs. The spill volume results were then forwarded to Applied Science Associates (ASA) for the overland and water transport analyses. The volume spilled analysis did not appear to consider the time the pipeline continues to run until a pipeline failure is recognized by the controller, the line is shutdown, and the time to close any remotely operated valves (ROVs).

Tanks and connections to other sources (i.e. other pipelines, etc) need to be considered in the spill volume calculations. This is especially relevant where SemGroup's pipelines are isolated from these additional sources by manually operated valves and no check valves or ROV's exist to prevent product from tankage contributing to spill volume on SemGroup's pipelines. SemGroup performed segment identification considering a pipeline rupture scenario. SemGroup indicated that they are reviewing the effect of small leaks (leaks below the capability of the SCADA system or line balance calculations to be readily detected) to compare with the results of the rupture scenario. The inspection team encourages SemGroup continue with this small leak analysis and make appropriate changes to segment identification as necessary. Results of the small leak analysis should be documented and maintained.

**2. §195.452 Pipeline integrity management in high consequence areas.**

**(f) What are the elements of an integrity management program? An integrity management program begins with the initial framework. An operator must continually change the program to reflect operating experience, conclusions drawn from results of the integrity assessments, and other maintenance and surveillance data, and evaluation of consequences of a failure on the high consequence area. An operator must include, at minimum, each of the following elements in its written integrity management program:**

**(3) An analysis that integrates all available information about the integrity of the entire pipeline and the consequences of a failure (see paragraph (g) of this section);**

**(5) Assessment methods. An operator must assess the integrity of the line pipe by any of the following methods. The methods an operator selects to assess low frequency electric resistance welded pipe or lap welded pipe susceptible to longitudinal seam failure must be capable of assessing seam integrity and of detecting corrosion and deformation anomalies.**

**(ii) Pressure test conducted in accordance with subpart E of this part;**

SemGroup does not state in its IMP that SemGroup will assess the effectiveness of its corrosion control program for segments hydrostatically assessed. From the Liquid IM FAQ's: **(6.5 What type of pressure test can be used to assess pipeline integrity?)** states that "The rule requires that pressure tests be conducted according to the requirements of 49 CFR Part 195, Subpart E. Operators choosing to assess by pressure test should also assure their corrosion control program is effective. PHMSA Pipeline Safety inspectors will pay particular attention to the adequacy of corrosion control programs for pipelines for which pressure testing is used."

**3. §195.452 Pipeline integrity management in high consequence areas.**

**(e) What are the risk factors for establishing an assessment schedule (for both the baseline and continual integrity assessments)?**

**(1) An operator must establish an integrity assessment schedule that prioritizes pipeline segments for assessment (see paragraphs (d)(1) and (j)(3) of this section). An operator must base the assessment schedule on all risk factors that reflect the risk conditions on the pipeline segment. The factors an operator must consider include, but are not limited to:**

- (i) Results of the previous integrity assessment, defect type and size that the assessment method can detect, and defect growth rate;**
- (ii) Pipe size, material, manufacturing information, coating type and condition, and seam type;**
- (iii) Leak history, repair history and cathodic protection history;**
- (iv) Product transported;**
- (v) Operating stress level;**
- (vi) Existing or projected activities in the area;**
- (vii) Local environmental factors that could affect the pipeline (e.g., corrosivity of soil, subsidence, climatic);**
- (viii) Geo-technical hazards; and (ix) Physical support of the segment such as by a cable suspension bridge.**

**(2) Appendix C of this part provides further guidance on risk factors.**

**(f) What are the elements of an integrity management program? An integrity management program begins with the initial framework. An operator must continually change the program to reflect operating experience, conclusions drawn from results of the integrity assessments, and other maintenance and surveillance data, and evaluation of consequences of a failure on the high consequence area. An operator must include, at minimum, each of the following elements in its written integrity management program:**

**(3) An analysis that integrates all available information about the integrity of the entire pipeline and the consequences of a failure (see paragraph (g) of this section);**

**(g) What is an information analysis? In periodically evaluating the integrity of each pipeline segment (paragraph (j) of this section), an operator must analyze all available information about the integrity of the entire pipeline and the consequences of a failure. This information includes:**

- (1) Information critical to determining the potential for, and preventing, damage due to excavation, including current and planned damage prevention activities, and development or planned development along the pipeline segment;**
- (2) Data gathered through the integrity assessment required under this section;**

**(3) Data gathered in conjunction with other inspections, tests, surveillance and patrols required by this Part, including, corrosion control monitoring and cathodic protection surveys; and**

**(4) Information about how a failure would affect the high consequence area, such as location of the water intake.**

**(i) What preventive and mitigative measures must an operator take to protect the high consequence area?**

**(2) Risk analysis criteria. In identifying the need for additional preventive and mitigative measures, an operator must evaluate the likelihood of a pipeline release occurring and how a release could affect the high consequence area. This determination must consider all relevant risk factors, including, but not limited to:**

**(i) Terrain surrounding the pipeline segment, including drainage systems such as small streams and other smaller waterways that could act as a conduit to the high consequence area;**

**(ii) Elevation profile;**

**(iii) Characteristics of the product transported;**

**(iv) Amount of product that could be released;**

**(v) Possibility of a spillage in a farm field following the drain tile into a waterway;**

**(vi) Ditches along side a roadway the pipeline crosses;**

**(vii) Physical support of the pipeline segment such as by a cable suspension bridge;**

**(viii) Exposure of the pipeline to operating pressure exceeding established maximum operating pressure.**

Semgroup uses a risk ranking analysis that does not clearly differentiate the relative risks of different pipeline segments. The risk results reviewed by the team indicated that adjacent pipeline segments that have different types and quantities of HCA's have the same relative risk score. A segment that affects multiple HCA's directly could present a higher risk than a segment that affects only one HCA indirectly. The thirteen HCA attribute columns on the SemGroup risk ranking spreadsheet are effectively reduced to a single yes or no and provide very little differentiating information to risk ranking, such as physical direct pathways. A segment that has one of the thirteen columns indicated would have the same risk as one that had all thirteen columns indicated per the SemGroup risk ranking spreadsheet.

**4. §195.452 Pipeline integrity management in high consequence areas.**

**(f) (3) See Above**

**(g) See Above.**

The Semgroup approach to analysis of risk for facilities that affect HCA's does not appear to be comprehensive or clearly documented.

**5. §195.452 Pipeline integrity management in high consequence areas.**

*(i) What preventive and mitigative measures must an operator take to protect the high consequence area?*

**(3) Leak detection.** An operator must have a means to detect leaks on its pipeline system. An operator must evaluate the capability of its leak detection means and modify, as necessary, to protect the high consequence area. An operator's evaluation must, at least, consider the following factors-length and size of the pipeline, type of product carried, the pipeline's proximity to high consequence area, the swiftness of leak detection, location of nearest response personnel, leak history, and risk assessment results.

Semgroup does not have a clearly documented Leak Detection Capability Evaluation process. SemGroup needs to formalize procedures for operator response to leak detection system indications. SemGroup needs to provide a direct link from its IMP to leak detection system and control room procedures that address IM requirements.

**6. §195.452 Pipeline integrity management in high consequence areas.**

**(b) What program and practices must operators use to manage pipeline integrity? Each operator of a pipeline covered by this section must:**

**(1) Develop a written integrity management program that addresses the risks on each segment of pipeline in the first column of the following table not later than the date in the second column:**

<b>Pipeline</b>	<b>Date</b>
<b>Category 1</b>	<b>March 31, 2002</b>
<b>Category 2</b>	<b>February 18, 2003.</b>
<b>Category 3</b>	<b>1 year after the date the pipeline begins operation.</b>

**(4) Include in the program a framework that--**

**(i) Addresses each element of the integrity management program under paragraph (f) of this section, including continual integrity assessment and evaluation under paragraph (j) of this section; and**

**(ii) Initially indicates how decisions will be made to implement each element. §195.452 (c)(2) An operator must document, prior to implementing any changes to the plan, any modification to the plan, and reasons for the modification.**

**(l) What records must be kept?**

- (1) An operator must maintain for review during an inspection: A written integrity management program in accordance with paragraph (b) of this section.**
- (ii) Documents to support the decisions and analyses, including any modifications, justifications, variances, deviations, and determinations made, and actions taken, to implement and evaluate each element of the integrity management program listed in paragraph (f) of this section.**

Semgroup does not have a statement in its IMP that documentation is obtained from a previous pipeline owner/operator when acquisitions are made. Obtaining records from previous pipeline operators will enable SemGroup to operate pipelines acquired from previous operators more safely.

Response to this Notice

This Notice is provided pursuant to 49 U.S.C. § 60108(a) and 49 C.F.R. § 190.237. 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). 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, after opportunity for a hearing, your plans or procedures are found inadequate as alleged in this Notice, you may be ordered to amend your plans or procedures to correct the inadequacies (49 C.F.R. § 190.237). If you are not contesting this Notice, we propose that you submit your amended procedures to my office within 30 days of receipt of this Notice. This period may be extended by written request for good cause. Once the inadequacies identified herein have been addressed in your amended procedures, this enforcement action will be closed.

In correspondence concerning this matter, please refer to **CPF 4-2012-5002M** 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*