



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

12300 W. Dakota Ave., Suite 110
Lakewood, CO 80228

NOTICE OF AMENDMENT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

April 17, 2007

Mr. John Moore
Tesoro Refining & Marketing Company
300 Concord Drive Plaza
San Antonio, TX 78216

SENT TO COMPLIANCE REGISTRY
Hardcopy Electronically
of Copies 1 / Date 4/17/07

CPF 5-2007-5018M

Dear Mr. Moore:

On February 26 through March 2, 2007, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected your procedures for Tesoro Refining & Marketing Company's (Tesoro) Integrity Management Program in Denver, Colorado.

On the basis of the inspection, PHMSA has identified the apparent inadequacies found within Tesoro'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:

(8) A process for review of integrity assessment results and information analysis by a person qualified to evaluate the results and information (see paragraph (h)(2) of this section).

Tesoro utilizes a third party contractor to evaluate the results of an in-line inspection (ILI) assessment and to prepare the excavation and/or remediation lists. However, Tesoro has not defined the necessary minimum qualification requirements for personnel that review the results.

The qualifications need, at the minimum, to be equivalent to those that Tesoro would impose upon their own personnel.

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:

(4) Criteria for remedial actions to address integrity issues raised by the assessment methods and information analysis (see paragraph (h) of this section);

(h) What actions must an operator take to address integrity issues?

(1) General requirements. An operator must take prompt action to address all anomalous conditions that the operator discovers through the integrity assessment or information analysis. In addressing all conditions, an operator must evaluate all anomalous conditions and remediate those that could reduce a pipeline's integrity. An operator must be able to demonstrate that the remediation of the condition will ensure that the condition is unlikely to pose a threat to the long-term integrity of the pipeline. A reduction in operating pressure cannot exceed 365 days without an operator taking further remedial action to ensure the safety of the pipeline. An operator must comply with Sec. 195.422 when making a repair.

(2) Discovery of condition. Discovery of a condition occurs when an operator has adequate information about the condition to determine that the condition presents a potential threat to the integrity of the pipeline. An operator must promptly, but no later than 180 days after an integrity assessment, obtain sufficient information about a condition to make that determination, unless the operator can demonstrate that the 180-day period is impracticable...

Tesoro's IM007, In Line Inspection, states that "The ILI vendor will provide a list of "Critical Findings" shortly after running the tool and verifying survey data quality." A "critical finding" is defined in IM007 as the metal loss greater than 80% but not the other immediate repair conditions required by the Liquid Integrity Management (IM) rule.

3. §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:

(8) A process for review of integrity assessment results and information analysis by a person qualified to evaluate the results and information (see paragraph (h)(2) of this section).

(h) What actions must an operator take to address integrity issues?

(2) Discovery of condition. Discovery of a condition occurs when an operator has adequate information about the condition to determine that the condition presents a potential threat to the integrity of the pipeline. An operator must promptly, but no later than 180 days after an integrity assessment, obtain sufficient information about a condition to make that determination, unless the operator can demonstrate that the 180-day period is impracticable.

Tesoro's procedures do not require the ILI vendor and/or your third party contractor that evaluates ILI results to consider tool tolerances. There were indications that accounting for tool tolerances would have required Tesoro to add more anomalies to the short-term investigation list. Tesoro's integrity management program does not have an adequate process for consideration of tool tolerances when categorizing anomalies and making repair decisions.

4. §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:

(4) Criteria for remedial actions to address integrity issues raised by the assessment methods and information analysis (see paragraph (h) of this section);

(h) What actions must an operator take to address integrity issues?

(2) Discovery of condition. Discovery of a condition occurs when an operator has adequate information about the condition to determine that the condition presents a potential threat to the integrity of the pipeline. An operator must promptly, but no later than 180 days after an integrity assessment, obtain sufficient information about a condition to make that determination, unless the operator can demonstrate that the 180-day period is impracticable.

Tesoro has defined "discovery of condition" as occurring when the Final Report is received from the vendor. Discovery is defined in the Integrity Management rule as when sufficient information is received to declare discovery. Tesoro needs to further refine your definition of discovery to occur at the earliest moment that a potential pipeline threat is identified.

5. §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:

- (4) Criteria for remedial actions to address integrity issues raised by the assessment methods and information analysis (see paragraph (h) of this section);**
- (h) What actions must an operator take to address integrity issues?**
- (4) Special requirements for scheduling remediation...**

Tesoro's IM010, Pipe Repairs, requires that pressure be reduced to less than P_{safe} when the predicted burst pressure is less than maximum operating pressure (MOP). Tesoro's integrity management program does not have an adequate process for establishing pressure reductions of corrosion anomalies to be determined from Section 451.7 of ANSI/ASME B31.4.

6. §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:

- (4) Criteria for remedial actions to address integrity issues raised by the assessment methods and information analysis (see paragraph (h) of this section);**
- (h) What actions must an operator take to address integrity issues?**
- (1) General requirements. An operator must take prompt action to address all anomalous conditions that the operator discovers through the integrity assessment or information analysis. In addressing all conditions, an operator must evaluate all anomalous conditions and remediate those that could reduce a pipeline's integrity. An operator must be able to demonstrate that the remediation of the condition will ensure that the condition is unlikely to pose a threat to the long-term integrity of the pipeline. A reduction in operating pressure cannot exceed 365 days without an operator taking further remedial action to ensure the safety of the pipeline. An operator must comply with Sec. 195.422 when making a repair.**

Tesoro applies abutting multiple field sleeves on the anomalies without a proper procedure. Tesoro's integrity management program does not have an adequate procedure for the installation of abutting multiple field sleeves and other practices that are not standard installation of a single sleeve (i.e. "armadillo" sleeves, minimum distance between sleeves, distance of sleeve's fillet weld from a pipeline girth weld, etc...)

7. §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.**

The risk model did not consider leak history. Tesoro's integrity management program does not have an adequate process to include this factor on the risk model.

8. §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:

- (6) Identification of preventive and mitigative measures to protect the high consequence area (see paragraph (i) of this section);**
- (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 the high consequence area, the swiftness of leak detection, location of nearest response personnel, leak history, and risk assessment results.**

The Emergency Operating Procedure for the High Plains pipeline was reviewed and it did not clearly give the operator authority to shutdown the pipeline in the event of a leak or potential leak. This is necessary to support the assumptions related to the leak detection evaluations.

9. **§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:

(5) A continual process of assessment and evaluation to maintain a pipeline's integrity (see paragraph (j) of this section);

(j) What is a continual process of evaluation and assessment to maintain a pipeline's integrity?

(3) Assessment intervals. An operator must establish intervals not to exceed five (5) years for continually assessing the line pipe's integrity. An operator must base the assessment intervals on the risk the line pipe poses to the high consequence area to determine the priority for assessing the pipeline segments. An operator must establish the assessment intervals based on the factors specified in paragraph (e) of this section, the analysis of the results from the last integrity assessment, and the information analysis required by paragraph (g) of this section.

The re-assessment interval is only based on the risk score and HCA density. Tesoro's integrity management program does not have an adequate process for consideration of other factors (i.e. corrosion growth rates of the deepest anomalies, the remaining strength calculations, etc...) to substantiate that a maximum five (5) year interval is appropriate.

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 5-2007-5018M** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,



Chris Hoidal
Director, Western Region
Pipeline and Hazardous Materials Safety Administration

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

cc: PHP-60 Compliance Registry
PHP-500 H. Nguyen (#118232)