



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

December 17, 2007

Mr Richard J. Jackson
Vice President, Operations
LOOP LLC
111 Veterans Blvd., Suite 600
Metairie, LA 70005

CPF 4-2007-5049M

Dear Mr Jackson

A representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected LOOP LLC (LOOP) procedures for implementation of liquid integrity management plan (IMP) processes and procedures in Metairie, Louisiana.

On the basis of the inspection, PHMSA has identified apparent integrity management inadequacies found within LOOP'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;**

LOOP must take into account the entire operating range of H₂S values into the air dispersion analysis for HCA boundaries in their IMP procedures. LOOP must provide technical justification for its H₂S air dispersion analysis for all operating parameters including H₂S worst concentration case scenarios. LOOP must amend its IMP procedures based upon the technical findings of the H₂S air dispersion analysis.

2. **§ 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:
(3) Include in the program a plan to carry out baseline assessments of line pipe as required by paragraph (c) of this section.
- (c) What must be in the baseline assessment plan?**
(1) An operator must include each of the following elements in its written baseline assessment plan:
(i) The methods selected to assess the integrity of the line pipe. 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.

LOOP IMP, Threat Assessment Process, Section 4.2.2, states that LOOP will conduct assessments of the LOOP and LOCAP pipeline systems and associated facilities to consider the existence of the following threat, (e) Stress corrosion cracking. LOOP must amend their SCC procedures in the IMP, Appendix F – SCC Screening and Inspection Procedure, to add specificity/detail in the procedures for the review of both high pH and near-neutral pH SCC, and to document the review results on all forms, NDT inspections and flow charts used in the field evaluation and remediation process.

3. **§ 195.452 Pipeline integrity management in high consequence areas.**
(f) see above
(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? (in its entirety)**

A. LOOP's procedures for in-line inspection (ILI) logs are in IMP, Assessment Selection Method, Section 4.3, Appendix G – Geometry Tool ILI Survey Specification, and Appendix H – Metal Loss Tool ILI Survey Specification. LOOP must amend these IMP procedures to add sufficient specificity/detail to its ILI assessment processes and procedures to define integrity assessment criteria used in evaluations such as; evaluation methods used to determine ILI safe pressures, usage of these evaluation methods, design factors used, pipeline MOP, and tool tolerance

B. LOOP IMP, Data Analysis-Section 6.1, does not specify criteria for performing validation or calibration digs or other vendor quality assurance processes LOOP must amend their IMP procedures to require the validation of assessment results and documentation of: a) technical justification to demonstrate that validation activities are not necessary for its circumstances or b) if LOOP can not provide technical validation of tool results then validation digs of the appropriate number, representative sample, and type of defects are required for validation digs. If LOOP intends to use unity charts developed in re-defining ILI tool tolerances for the purposes of anomaly evaluations and repair decisions, then LOOP must ensure that the procedure handles the issue of ILI tool tolerances in a technically justifiable manner.

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

(f) *see above*

(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;

A. LOOP must amend its procedures to ensure that information integration is performed in making decisions regarding remediation of anomalies identified in integrity assessments. The use of corrosion coupon test result data to identify features along the pipeline was discussed during the inspection, but there is no process documentation supporting the use of additional sources of data other than the ILI results to make the best integrity decisions regarding remediation (e.g.; corrosion control data such as rectifier readings and corrosion coupon results; results of annual and close interval cathodic protection surveys for both onshore and offshore pipelines, ROW surveillance results; and identification of areas of known third party activities).

B. LOOP must amend its IMP data integration process to formally document the consideration of new information in the program such as industry reports on new technology, incident reports, etc

5. § 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.

§195.452(f)(3) see above

§195.452(g) see above

A. LOOP must amend its IMP processes and procedures to define when the IMP risk analysis will be updated and when the analysis of the results will be reviewed.

B. LOOP must amend its processes and procedures to further define documentation of the risk analysis process such as: a) logical, structured guidelines for any subject matter expert (SME) evaluations that are used to perform or influence the integration of risk information, b) technically justifiable basis for the analytical structure of any tools, models, or algorithms utilized to integrate risk information, and recognition of any limitations of these analytical structures, c) justification for the relative magnitude of any numerical weights used to estimate measures of risk.

C LOOP's IMP procedures must be amended to document where all risk model input data is gathered from (e.g., completed forms, external databases) and the methodology for the analysis of risk in sufficient detail to ensure consistent application and repeatability.

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

(f) What are the elements of an 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? (*In its entirety*)

LOOP must amend its preventive and mitigative measures (P&MM) process and procedures to include criteria for consideration of alternate modes of operation (e.g., startup, shutdown, pressure cycling, etc.) in the P&MM review process.

7. **§ 195.452 Pipeline integrity management in high consequence areas**
(f) *see above*
(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?*
(1) **General.** After completing the baseline integrity assessment, an operator must continue to assess the line pipe at specified intervals and periodically evaluate the integrity of each pipeline segment that could affect a high consequence area.
- (2) **Evaluation.** An operator must conduct a periodic evaluation as frequently as needed to assure pipeline integrity. An operator must base the frequency of evaluation on risk factors specific to its pipeline, including the factors specified in paragraph (e) of this section. The evaluation must consider the results of the baseline and periodic integrity assessments, information analysis (paragraph (g) of this section), and decisions about remediation, and preventive and mitigative actions (paragraphs (h) and of this section).

LOOP must amend its IMP procedures to develop specificity and define the performance of the periodic evaluations of pipeline integrity on a technically justified frequency.

8. **§ 195.452 Pipeline integrity management in high consequence areas.**
(f)(5) *see above*
- (j) *see above*
(1) *see above*
(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.

LOOP must amend its IMP process and procedures to develop specificity and detail for determining re-assessment intervals for pipeline segments that could affect HCAs

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 4-2007-5049M** 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