



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

August 2, 2007

Mr. Charles Brabson
Sr. VP-Engineering
Dixie Pipeline Company
1100 Louisiana Street
Houston, TX 77002-5227

CPF 4-2007-5031M

Dear Mr. Brabson:

On August 28 to September 1 and September 12 to 14, 2006, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code, inspected your procedures for your Integrity Management Program (IMP) in Houston, TX.

On the basis of the inspection, PHMSA has identified the apparent inadequacies found within Dixie Pipeline Company'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.

(a) *What pipelines are covered by this section?* The section applies to each hazardous liquid pipeline and carbon dioxide pipeline that could affect a high consequence area, including any pipeline located in a high consequence area unless the operator effectively demonstrates by risk assessment that the pipeline could not affect the area.

Dixie Pipeline Company (DPC) must include the Mississippi River idle line segment and all other idle pipeline segments in the Baseline Assessment Plan. Currently, DPC does not perform segment identification for idle lines that are filled with nitrogen or other non-hazardous liquid, and consequently, these idle lines are not listed as directly affecting HCAs. Direct intersections between High Consequence Areas (HCA) and "purged and idled" lines must be identified, and these segments must be listed in the Baseline Assessment Plan. Integrity assessments or re-assessments of these "purged and idle" pipeline segments may be deferred as long as they remain idle.

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

(f) (1) See above

(a) What pipelines are covered by this section? The section applies to each hazardous liquid pipeline and carbon dioxide pipeline that could affect a high consequence area, including any pipeline located in a high consequence area unless the operator effectively demonstrates by risk assessment that the pipeline could not affect the area.

DPC must modify the buffer distances used in the segment identification process to ensure that the buffers conservatively bound the application of the results of the Baker Risk "cold weather" study on spill behavior and spread. The Baker Risk "cold weather" study had not been completed at the time of the inspection. DPC's air dispersion buffers are established from the Baker Risk Safe Site® third generation air dispersion analysis tool, and DPC's must include technical justification for the air dispersion buffer distances by confirming that the use of MOP and full pipe rupture always provide the highest LFL distance. DPC must also consider if an assumption of a lower pressure or smaller rupture size possibly result in greater LFL distance for the pressures and diameters applicable to the Dixie system.

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

(f) See above

(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).

(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.**

- A. Dixie must document the methods and actions to be taken to integrate other pertinent and available data and information with the results of integrity assessment to support evaluation of the condition of the pipeline and to make decisions related to the repair or remediation of pipeline defects. All available information must be utilized and integrated, as appropriate (e.g., one call activity, foreign line crossings, CP surveys, leak history, local knowledge) when making these decisions. The process must be detailed sufficiently to ensure consistent application and repeatability.
- B. DPC must consider tool tolerances in review of ILI results as provided by the ILI Vendor. Adequate review is required of these results for thorough application of the repair criteria, and for making decisions on remediation. Relevant information on the condition of the pipeline must be integrated in the decision making process on excavation timing and other mitigative actions. Tool tolerances must be considered as part of the data integration process.

4. **§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) (2) *Discovery of a 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.

(4) Special requirements for scheduling remediation Immediate repair conditions ... (ii) 60-day conditions ... (iii) 180-day conditions ... (iv) Other conditions....

DPC's discovery process must be modified to describe in sufficient detail the specific steps taken following receipt of an ILI report to declare discovery to ensure consistent application. DPC's current definition of "discovery" for immediate repairs requires final validation of the ILI results before discovery of the condition is claimed. Discovery of a condition occurs when an operator has adequate information about the condition to determine that the condition represents a potential threat to the integrity of the pipeline. In the case of an integrity assessment that was conducted by internal inspection, information in the internal inspection results, such as the percentage of metal loss from corrosion and the magnitude of dent-type deformations, are sufficient to enable a determination that the potential exists for an integrity threat. While the Inspection Team reviewed documentation demonstrating Dixie's prompt actions in reducing pressure in response to the receipt of ILI information identifying an immediate condition, DPC's discovery date of the condition did not occur until three days later when the report was "validated".

5. **§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; and

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

DPC must modify its process of evaluation of station piping within the facilities to determine if assessments of the integrity of the station piping are warranted. While DPC's DOT jurisdictional facilities consist of pump and injection stations that are relatively straight forward in design and function and covered under existing Preventive Maintenance Programs, the results of the facility risk analysis should provide the basis for the determination and prioritization of preventive and mitigative measures to reduce facility risks.

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

(f) see above

(6) Identification of preventive and mitigative measures to protect the high consequence area (see paragraph of this section)

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

(1) *General requirements.* An operator must take measures to prevent and mitigate the consequences of a pipeline failure that could affect a high consequence area. These measures include conducting a risk analysis of the pipeline segment to identify additional actions to enhance public safety or environmental protection. Such actions may include, but are not limited to, implementing damage prevention best practices, better monitoring of cathodic protection where corrosion is a concern, establishing shorter inspection intervals, installing EFRDs on the pipeline segment, modifying the systems that monitor pressure and detect leaks, providing additional training to personnel on response procedures, conducting drills with local emergency responders and adopting other management controls.

DPC must modify their process to require a reduced length of time to complete an information analysis process following the initiation of an integrity assessment evaluation for those segments that have not yet been evaluated and for implementing appropriate P&MMs. Because of the changeover in operating partner to Enterprise, some segments have not had this process performed even though the baseline assessment was performed more than 3 years ago.

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).

DPC must identify specific triggers, as required in §195.452(j)(2), for the initiation of the periodic evaluation to assure pipeline integrity to ensure consistent application. DPC identified the requirement to perform the periodic evaluation (Information Analysis) within three years following completion of an integrity assessment in IMP-SEC6-01, Section 1.2, or in response to an evaluation of consequences of a release on an HCA.

8. §195.452 Pipeline integrity management in high consequence areas.

(f) (5) See above

(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.

(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.

Dixie must detail the specific inputs used in the reassessment interval determination process to ensure the §195.452(j)(3) requirements are met. For those segments for which a five year interval is to be justified, the significant threats must be evaluated; and for threats determined to be significant criteria, must be established to justify the assessment interval. In the case of external corrosion where the growth rate determination process is used, the determination in IMP-SEC3-02, Section 2.2.6, must be conservative (use of original construction date gives results far below default rates cited in NACE RP0502 or other industry standards). The processes used to justify a 5 year interval must be referenced in the interval determination process in IMP-SEC 6-0.

In regard to Items 3 b, 5, and 6 listed above, DCP provided finalized documentation via email to PHMSA on November 16, 2006, of various changes made to the IMP. After considering the material provided, PHMSA deemed the modifications adequate, and no further action is required in response to Items 3 b, 5 and 6 of this Notice.

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 your correspondence on this matter, please refer to **CPF 4-2007-5031M** 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*