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

April 8, 2008

Mr. Kent Powers
General Manager
Citgo Pipeline Corporation
One Warren Place
6100 South Yale Avenue
Tulsa, OK 74102

CPF 4-2008-5012M

Dear Mr. Powers

On June 11-15 and 25-29, 2007 representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected Citgo Pipeline Company procedures for Integrity Management in Houston, TX.

On the basis of the inspection, PHMSA has identified the apparent inadequacies found within Citgo Pipeline Company (Citgo) 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:

(2) A baseline assessment plan meeting the requirements of paragraph (c) of this section

(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.

(A) Internal inspection tool or tools capable of detecting corrosion and deformation anomalies including dents, gouges and grooves;

(B) Pressure test conducted in accordance with subpart E of this part; or

(C) External corrosion direct assessment in accordance with §195.588; or

(D) Other technology that the operator demonstrates can provide an equivalent understanding of the condition of the line pipe. An operator choosing this option must notify the Office of Pipeline Safety (OPS) 90 days before conducting the assessment, by sending a notice to the address or facsimile number specified in paragraph (m) of this section.

(ii) A schedule for completing the integrity assessment;

(iii) An explanation of the assessment methods selected and evaluation of risk factors considered in establishing the assessment schedule.

(2) An operator must document, prior to implementing any changes to the plan, any modification to the plan, and reasons for the modification.

Citgo must modify their Baseline Assessment Plan to include all out-of-service idle line segments that can affect HCAs. Citgo may defer conducting baseline assessments or re-assessments if the idle line remains out-of-service. Citgo must modify their process to require that an idled line must have any required integrity assessment performed as part of a return to service.

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

(f) 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.

CITGO's process must be modified to require the application tool uncertainty to ILI results during the discovery phase of assessment reviews when comparing ILI results to IM rule repair requirements. PHMSA does not specify a particular approach to handling tool uncertainty, but expects reasonable consideration of tool capabilities and tolerances when comparing results to IM rule repair criteria.

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)

(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.

(h) (4) Special requirements for scheduling remediation. *In its entirety*

The Citgo must modify their procedures to provide specific guidance in their IMP manual for what constitutes "sufficient information" for discovery from the vendors' preliminary ILI vendor report for determining indicated immediate repair conditions and from a final ILI vendor report for 60 and180 day conditions.

4. **§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?

(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.

(i) Internal inspection tool or tools capable of detecting corrosion and deformation anomalies including dents, gouges and grooves;

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

(iii) External corrosion direct assessment in accordance with §195.588; or

(iv) Other technology that the operator demonstrates can provide an equivalent understanding of the condition of the line pipe. An operator choosing this option must notify OPS 90 days before conducting the assessment, by sending a notice to the address or facsimile number specified in paragraph (m) of this section.

Citgo must include or reference in their IMP manual the corrosion control criteria in their O&M Manual regarding the performance of their Close interval Survey prior to assessments of lines by hydrostatically pressure testing. Criteria for determining the adequacy of cathodic protection prior to hydrostatic pressure testing should be clearly defined.

5. **§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) (1) General requirements. An operator must take prompt action to address all anomalous conditions that the operator discovers through integrity assessment or information analysis ... evaluate all anomalous conditions and remediate those that could reduce a pipeline's integrity ... demonstrate that the remediation of the condition will ensure 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 § 195.422 when making a repair.

(3) Schedule for evaluation and remediation. An operator must complete remediation of a condition according to a schedule that prioritizes the conditions for evaluation and remediation.... the operator must justify the reasons why it cannot meet the schedule and that the changed schedule will not jeopardize public safety or environmental protection. An operator must notify OPS if the operator cannot meet the schedule and cannot provide safety through a temporary reduction in operating pressure.

(4) Special requirements for scheduling remediation. Immediate repair conditions.... To maintain safety, an operator must temporarily reduce operating pressure or shut down the pipeline ... calculate the temporary reduction in

operating pressure using the formula in section 451.7 of ASME/ANSI B31.4.... Citgo must modify the process for calculation of pressure reduction for immediate repairs to require calculation in accordance with PHMSA requirements and ASME B31.4 Section 451.7. The process must require that a reduction in pressure cannot exceed 365 days without taking further remedial action to ensure the safety of the pipeline. And include a requirement for notifying PHMSA if required repair time frames cannot be met.

6. **§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.

Citgo must characterize specific factors in their Risk Assessment model in more detail to provide for more accurate risk scores. The model should be evaluated to identify factors where increased specificity in scoring would provide more meaningful results. Examples of factors that improvements are needed in include the ILI indicated metal loss variable which is scored as 0 for less than five years and scored as 10 if greater than five years; and the internal corrosion threat variable which may not change beyond the referenced 30% threshold.

7. **§195.452 Pipeline integrity management in high consequence areas.**
(f) (3) ***see above***
(g) ***see above***

Citgo's process for adequately identifying dominant risk factors in their likelihood of failure analysis must be modified to include the use of GIS/PODS data in the risk model input versus the SME-derived input information. Citgo's current process has little variation over a particular assessment section, and it is difficult to gain threat insights for location-specific pipelines.

8. **§195.452 Pipeline integrity management in high consequence areas.**
(f) (3) ***see above***
(g) ***see above***

Citgo must modify the process for facility risk analysis to ensure all available information about the integrity of the entire pipeline system, including facilities, is analyzed. This approach is required for identifying specific facility risks and can be included in system wide prioritizing of preventive & mitigative measures.

9. **§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).

Citgo must modify their process for evaluation of pipeline integrity to provide sufficient detail such that an effective integrity evaluation process can be consistently performed. This process must be distinct from the reassessment interval determination process and provide an evaluation of the effectiveness of the ongoing management of pipeline integrity.

10. **§195.452 Pipeline integrity management in high consequence areas.**
(f) (5) ***see above***
(j) (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.

Citgo must modify the process for considering specific risk factors for determining re-assessment intervals and their priority in sufficient detail to ensure consistent application, and this evaluation must be based on the impact the pipeline segment risk factors have on the 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 your correspondence on this matter, please refer to **CPF 4-2007-5012M** 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*