U.S. Department
of Transportation

Pipeline and
Hazardous Materials
Safety Administration

8701 S. Gessner, Suite 1110
Houston, TX 77074

NOTICE OF AMENDMENT

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

April 17, 2007

Mr. Wilson Groen
Navajo Nation Oil and Gas Company
President and General Manager,
P O Box 4439
Window Rock, AZ. 86515

CPF 4-2007-5012M

Dear Mr. Groen,

On October 10-13, 2006, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected Navajo Nation Oil and Gas Company (NNOG) procedures for the Integrity Management Program (IMP) in Houston, TX.

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

1. **§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.

(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.

(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;

(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.

Navajo Nation Oil and Gas Company (NNOG) must modify the process to identify specific risk factors (threats) for each segment that could affect an HCA and utilize the appropriate assessment method to address the identified threats. There is no documented process for integrity assessment method selection based on segment-specific risk factors and for application of those methods, such as for pre-1970 Low Frequency ERW or lap-welded seams.

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:

(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).

NNOG must modify the procedure to define the minimum requirements for employees who review and evaluate integrity assessment results in the IMP. No documentation exists of personnel skills, education, training, and experience that (1) demonstrates the individual's qualification and proficiency, and (2) identifies additional qualification needs. Currently existing industry standards

and other approved standards under development may be used to meet this qualification requirement.

3. §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.

(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

NNOG's process must include measures to prevent and mitigate the consequences of a pipeline failure that could affect a high consequence area. The process must consider identification of the most significant causes/drivers of each segment-specific risk when evaluating and identifying additional preventive and mitigative actions.

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

(f) (6) ***see above***

(i) see above

> **(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.**

NNOG must amend the basis for making decisions about enhancing leak detection capability to protect HCAs to include all required risk factors. As a part of the leak detection-specific portion of the preventive and mitigative section of the integrity management rule, a number of factors must be included to be part of the operator's evaluation relevant to their leak detection capability. Some factors to consider are swiftness of leak detection, location of nearest response personnel, leak history, and risk assessment results.

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

(f) (6) ***see above***

(i) ***see above***

> **(4) Emergency Flow Restricting Devices (EFRD). If an operator determines that an EFRD is needed on a pipeline segment to protect a high consequence area in the event of a hazardous liquid pipeline release, an operator must install the EFRD. In making this determination, an operator must, at least, consider the following factors - the swiftness of leak detection and pipeline shutdown capabilities, the type of commodity carried, the rate of potential leakage, the volume that can be released, topography or pipeline profile, the potential for ignition, proximity to power sources, location of the nearest response personnel, specific terrain between the pipeline segment and the high consequence area, and benefits expected by reducing the spill size.**

NNOG's evaluation for requirement for additional EFRDs must be more explicit and reflect the basis for making decisions and include consideration of the benefits of reduced consequences expected due to reducing spill size. If any required factors are not considered, a documented basis for the exclusion of these factors must be developed and provided.

6. **§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).

NNOG must amend their process for periodic evaluation of pipeline integrity to update the understanding of pipeline conditions and the segment-specific integrity threats that can affect HCAs. The evaluation process must include risk factors specified in §195.452 (e) and consider the results of the baseline and periodic integrity assessments, information analysis, decisions about remediation, and preventive and mitigative measures.

7. **§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.

NNOG must modify and document the process for continually re-assessing pipeline system integrity. The re-assessment interval determination process must be based on the risk it poses to the HCA and to determine the priority for future re-assessment plans. The process must also include all relevant information or provide adequate justifications for not establishing a 5 year or less re-assessment interval.

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

(f) ***see above***

(7) Methods to measure the program's effectiveness (see paragraph (k) of this section);

(k) *What methods to measure program effectiveness must be used?* An operator's program must include methods to measure whether the program is effective in assessing and evaluating the integrity of each pipeline segment and in protecting the high consequence areas. See Appendix C of this part for guidance on methods that can be used to evaluate a program's effectiveness.

A. NNOG must amend its procedures to review their integrity management program to evaluate the effectiveness of its processes and procedures may include the following: periodic self-assessments, internal/external audits, management reviews, or other self-critical evaluations. NNOG must also, continually evaluate its scope and objectives, the frequency of periodic evaluations and assignment of responsibilities for implementing required actions. A review and follow-up of the program by management is necessary to measure the effectiveness of key activities.

B. NNOG's program must specify the requirements and frequency for collecting data to provide a timely and effective assessment of the IM Program. PHMSA encourages NNOG to refine its performance matrix to match their unique operating environment and identify those mechanisms and measures that provide meaningful results.

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 **4-2007-5012M** 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*