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

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May 3, 2007

Ms. Sandy Stash
Vice President
Regulatory Compliance and Ethics
BP Exploration (Alaska), Inc.
900 E. Benson Blvd.
Anchorage, AK 99508

CPF 5-2007-5021M

Dear Ms. Stash:

On March 21 and 22, 2007, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected BP Exploration (Alaska) Inc. (BPXA) procedures for specific areas in your Integrity Management Program in Anchorage, Alaska.

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

1. **§452 (f) 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.

   The review of the Badami Fate and Transport Analysis indicated that absorption was taken into account for overland spread. While it has been shown through experience that releases in winter can be partially contained by snow and cold temperatures, the assumption that releases in summer can be mitigated by absorption should be justified.

   The Fate and Transport Analysis used current operating flow rates to calculate release volumes along each pipeline. The BPXA IM Plan should describe the process for identifying changing operating conditions that might impact the F&T analysis and how these changes will trigger new F&T analyses.

2. §195.452 (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.

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

The dent excavation spreadsheet reviewed during the inspection did not contain the recent ILI information for the EOA 34 inch pipeline. The results of this assessment should have been included in the spreadsheet for completeness.

An updated sheet was provided at the end of the inspection. This provided information on a future ILI inspection to be performed 7/2007 on the EOA FS 2 to FS 1 section. This section has been taken out of service and will be replaced by a new pipeline. The update did not include the results of dent investigation for the EOA 34 inch FS 1 to Skid 50 ILI run performed in October, 2006. A process for creating and populating your spreadsheets should include a completeness check or explanation for missing information.

3. **§452 (f) 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)**

§452 (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.

The BPXA IM Plan states that indications >40% wall loss will be evaluated. These indications are not listed as "other" repair conditions in Protocol 4.01 or in BPNA's procedure 200. BPXA should define the criteria that will be used to determine if any wall loss indications >40% must be repaired. This criteria needs to be incorporated into all applicable repair procedures.

The relationship of existing repair procedure 00090 and its proposed replacement - BPNA procedure 200 - to the Tier 2 OMER repair procedure is not clear. The Tier 2 OMER procedure does not contain all of the IM rule repair requirements for corrosion. In addition, it appears that procedure 00090 Sections 6.2 and 6.3 allow clamp on sleeves to be used to repair leaks due to corrosion whereas the Tier 2 OMER procedure does not. BPXA needs to ensure that all repair procedures accurately and completely address IM repair criteria and allowable repair methods. All regulatory requirements should be included on the final process.

4. §195.452 (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 of this section)**

§195.452(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.**

The BPXA IM Plan must address how their proposed improvements to Leak Detection addresses the eight required evaluation factors of 195.452(i)(3). The IM Plan should also address how and when future evaluations of the Leak Detection systems will be performed.

5. **§195.452** ***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 high consequence area, the swiftness of leak detection, location of nearest response personnel, leak history, and risk assessment results.**

The BPXA IM Plan must address how their proposed improvements to Leak Detection addresses the eight required evaluation factors of 195.452(i)(3). The IM Plan should also address how and when future evaluations of the Leak Detection systems will be performed.

Section 6.04 of the IM Plan should fully describe current leak detection systems or reference a document where these descriptions are provided.

6. **§195.452 (f) 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);**
§195.452 (g) *What is an information analysis?* In periodically evaluating the integrity of each pipeline segment an operator must analyze all available information about the integrity of the entire pipeline and the consequences of a failure
§195.452 (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.

Periodic evaluation is considered to be an ongoing data integration process that takes into account changing conditions on a pipeline that may warrant a change in reassessment schedules. The IM Plan states in Section 7.01/7.02 "If assessment results or other factors warrant, higher risk areas may require more frequent evaluation". The IM Plan needs to provide more detail as to when evaluations will be performed, by whom, which risk factors will be evaluated, and how re-assessment intervals will be changed.

7. **§195.452 (f) An operator must include, at minimum, each of the following elements in its written integrity management program:**
(7) Methods to measure the program's effectiveness (see paragraph (k) of this section);
§195.452 (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.

PHMSA recognizes that the BPXA IM program is in a state of transition and that BPXA has chosen to focus on Key Performance Indicators that measure implementation process. However, BPXA needs to emphasize development of Key Performance Indicators (KPIs) that measure the effectiveness of the IM program. BPXA should use the characteristics of an effective program provided in Protocol 8.02 and the performance metrics identified in API 1160 to develop these KPIs.

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 5-2007-5021M** 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 B. Hansen