



U.S. Pipelines and Logistics

BP Pipelines (North America) Inc.
28100 Torch Parkway
Warrenville, Illinois 60555

July 22, 2008

Ms. Linda Daugherty
Director, Southern Region
U.S. Department of Transportation
PHMSA, Office of Pipeline Safety
233 Peachtree Street, Suite 600
Atlanta, Georgia 30303

Re: CPF No. 2-2008-5007

Dear Ms. Daugherty:

BP Pipelines (North America) Inc. is writing in response to the referenced notice of probable violation and proposed compliance order letter, received in our offices on June 24, 2008, regarding the October 9-12 and 22-24, 2007 gas integrity management program inspection. Subject to the clarifications and explanations set forth in this response and any further response from the Pipeline and Hazardous Materials and Safety Administration ("PHMSA"), BP Pipelines requests a hearing regarding NOPV Items 5, 6 and 7 and the necessity of issuing a compliance order based upon the inspection team's findings for Item 7.

Each of the Warning Items 1, 2, 3, 4, 8 and 9 was addressed in BP's IMP Program revisions and these modifications were completed by the end of the first quarter 2008. The program was reformatted to reside within BP's standard Operations and Maintenance Manual which is used by all of the BP subsidiaries and all of these changes have been transitioned over to that reformatted program. Items 2, 4, 8 and 9 were addressed in between weeks one and two of the inspection as noted in PHMSA's letter. BP Pipelines contends that it has not violated federal pipeline safety regulations and in support thereof provides the following responses to the allegations of non-compliance set forth in the NOPV and Proposed Compliance Order. Each of the items in the NOPV that BP is contesting is restated below with BP's response.

Item 5. **§192.917 How does an operator identify potential threats to pipeline integrity and use the threat identification in its integrity program?**

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(e) Actions to address particular threats. If an operator identifies any of the following threats, the operator must take the following actions to address the threat. **(4) ERW pipe.** If a covered pipeline segment contains low frequency electric resistance welded pipe (ERW), lap welded pipe or other pipe that satisfies the conditions specified in ASME/ANSI B31.8S, Appendices A4.3 and A4.4, and any covered or non-covered segment in the pipeline system with such pipe has experienced seam failure, or operating pressure on the covered segment has increased over the maximum operating pressure experienced during the preceding five years, an operator must select an assessment technology or technologies with a proven application capable of assessing seam integrity and seam corrosion anomalies.

The BP IMP contains no provisions to monitor operating pressures experienced over the preceding 5-year period to ensure that seam conditions on LF ERW piping do not become unstable.

BP Response:

BP modified its procedures in regard to this issue between weeks 1 and 2 and presented those changes to the inspection team during week 2. BP requests that this change be identified as the others that were modified between weeks 1 and 2. The revision is shown below and BP believes these modified procedures address PHMSA's concerns.

Note: For pipe containing longitudinal seams manufactured using either the low frequency ERW or lap-welded process:

- ILI using transverse magnetic flux leakage tool, ILI using ultrasonic shear wave tool, and/or hydrostatic test.
- BP Pipelines shall establish a historical operating pressure (highest pressure recorded in past 5 years) and take one of the following actions:
 - Option 1: Freeze MAOP at the historical operating pressure.
 - Option 2: Monitor operating pressure annually to assure that the initial historical operating pressure is not exceeded by greater than 10%.

If operating pressure exceeds the initial historical operating by greater than 10%, the affected pipe shall be subjected to the hydrotest option, within 1 year from the date of occurrence.

Item 6. §192.917 How does an operator identify potential threats to pipeline integrity and use the threat identification in its integrity program?

(b) Data gathering and integration. To identify and evaluate the potential threats to a covered pipeline segment, an operator must gather and integrate

existing data and information on the entire pipeline that could be relevant to the covered segment. In performing this data gathering and integration, an operator must follow the requirements in ASME/ANSI B31.8S, section 4.

The BP IMP includes no documented plan or process for the gathering and integration of data to support threat analysis and risk determination. Data sources and data elements in accordance with B31.8S Tables 1 and 2 are not identified. No provisions exist for treatment of missing or suspect data. No procedures are provided which ensure timely treatment of new data. No procedures exist to define the process for spatial integration of data or to demonstrate integration of ILI results with encroachments or foreign line crossings.

BP Response:

BP's data gathering and integration was presented to the inspection team as evidence of meeting this requirement. Missing or suspect data was considered in the risk analysis / baseline ranking process. The required data sources and data elements were documented in the combination of the plan narrative and the risk analysis spreadsheet. The inspection team agreed with the segment ranking results produced from the risk analysis of this gathered data and the subsequent baseline assessment plan. A summary of the narrative description outlined in BP's Gas Integrity Management Plan follows:

Prescriptive Threat Analysis

The high level threat analysis shall follow the requirements of ASME/ANSI B31.8S (section 4.2.1) and consider the prescriptive pipeline integrity program data elements. Information is collected through the use of questionnaires, interviews, and field visits. The guidance of ASME/ANSI B31.8S (Non-mandatory Appendix A) is used in conjunction with the aid of subject matter experts to determine the appropriate baseline assessments methodology. Both the criticality and significance of the threats identified as well as the quality and completeness of the data available for the study shall be factors in determining assessment prioritization. Results of the analysis shall include the risk rank of each pipeline (overall and threat specific) and be used to develop the Baseline Assessment Plan and the Integrity Management Plan. Data and results are contained in the Prescriptive Threat Analysis excel spreadsheet.

Data Gathering

Each threat contained in ASME/ANSI B31.8S (Non-mandatory Appendix A) is reviewed to determine the data necessary to perform the prescriptive analysis. The **Prescriptive Threat Analysis Data Requirement Table** outlines the data requirements for each applicable threat analysis and the source of the data

Prescriptive Threat Analysis Maintenance

The IMT shall incorporate new data upon discovery, rerun the models, and determine if a new prioritization results. This re-evaluation process is not intended to make changes to the current years budgeted baseline assessment plan and is completed in time to facilitate the succeeding year's budgeting process.

Item 7. §192.917 How does an operator identify potential threats to pipeline integrity and use the threat identification in its integrity program?

(c) Risk assessment. An operator must conduct a risk assessment that follows ASME/ANSI B31.8S, section 5, and considers the identified threats for each covered segment. An operator must use the risk assessment to prioritize the covered segments for the baseline and continual reassessments (§§ 192.919, 192.921, 192.937), and to determine what additional preventive and mitigative measures are needed (§192.935) for the covered segment.

There has been no development of a risk model as part of the BP IMP. Threats have been analyzed using a relativistic model and the model developed for liquid lines is stated to be similar to that which will be developed for gas lines over the next two years, but there has been no determination of risk (likelihood and consequences) for gas lines. Accordingly, there are no program procedures that describe the use of risk information as part of the Gas IMP.

The BP IMP does not address pipeline risk in a manner that enables:

- *Assessment of the benefits derived from mitigating actions;*
- *Determination of the most effective mitigation measures for identified threats;*
- *Assessment of the integrity impact from modified inspection intervals;*
- *Assessment of the use of or need for alternative inspection methodologies;*
- *More effective resource allocation;*
- *Facilitation of decisions to address risks along a pipeline or within a facility.*

No program documentation exists to describe how these objectives are met using risk determination. Further, no risk information exists to ensure appropriate ranking for conducting the BAP.

BP Response:

BP's prescriptive threat analysis was presented to the inspection team as evidence of risk model development. ASME/ANSI B31.8S, section 5, allows for the use of a relativistic model. Risk models were developed to associate higher likelihood and consequence risk with higher rank. The risk analysis produced both a composite risk rank and threat specific risk ranks. The inspection team agreed with the segment ranking results produced from the risk analysis, the subsequent baseline assessment plan, and the selection of assessment methodology to address

the key threats. The narrative description outlined in BP's Gas Integrity Management Plan follows:

Prescriptive Threat Analysis

The high level threat analysis shall follow the requirements of ASME/ANSI B31.8S (section 4.2.1) and consider the prescriptive pipeline integrity program data elements. Information is collected through the use of questionnaires, interviews, and field visits. The guidance of ASME/ANSI B31.8S (Non-mandatory Appendix A) is used in conjunction with the aide of subject matter experts to determine the appropriate baseline assessments methodology. Results of the analysis shall include the risk rank of each pipeline (overall and threat specific) and be used to develop the Baseline Assessment Plan and the Integrity Management Plan.

Data Gathering (same as described in item 6)

Threat Analysis

For conditional threats (SCC, Seam, Construction, Equipment, Operations), the data is reviewed per the requirements outlined in the respective section of ASME/ANSI B31.8S (Non-mandatory Appendix A) to determine if the threat exists. For the non conditional threats (External Corrosion, Internal Corrosion, Third-Party, and Outside Force), the IMT reviews the data variability presented and formulates a risk model that will force a threat risk prioritization result. The model results for each pipeline are then compared to establish a ranking order for each threat. The ranking order for each threat is tabulated and summed together to establish an overall rank for each segment. The final ranking order is incorporated into the **Gas Baseline Assessment Plan** to establish the prioritized schedule (section B.2).

BP outlined mitigation effectiveness based threat focus in the Gas Integrity Management Plan. The inspection team agreed that these actions benefit threat reduction. The narrative description outlined in BP's Gas Integrity Management Plan describes in more detail the following threats; External Corrosion Threats, Internal Corrosion Threats, Stress Corrosion Cracking Threat, Manufacturing (Seam) Threat, Manufacturing (Fabrication/Construction) Threat, Third Party Damage Threat, Incorrect Operations Threat, and Outside Force Damage Threat.

Proposed Compliance Order Response

1) Based upon PHMSA's expressed concerns, BP will clarify its procedures for establishing reassessment intervals.

- 2) BP Pipelines estimates a timeline of one year, from the date of concurrence with PHMSA, to complete process review of the application of assessment intervals for the scheduled pipelines prospectively.
- 3) BP Pipelines will formally submit to PHMSA Southern Region Director, the timeline (schedule) and scope within 30 days of the final order.
- 4) BP will supply the Southern Region Director with a timeline and costs if the responses contained within don't address the concerns of PHMSA.

BP Pipelines has modified its procedures to reflect the 2007 OPS IMP team's recommendations and as stated above believes its program met the requirements of the regulations. BP believes these actions and clarifications provide sufficient documentation to request PHMSA close CFR-2-2008-5007 NOPV and repeal the Proposed Compliance Order. This prompt response demonstrates that BP Pipelines continues to act within the spirit of the regulations which are intended to foster continuous improvement of safety programs.

BP further requests that this response letter be included in the docket for public viewing along with PHMSA's initial citation letter. BP Pipelines remains committed to working cooperatively with your office with the ultimate goal of further enhancing the safety of our operations.

Please feel free to contact me directly, or alternatively Rob ^{RJK}Khanishu (630-836-3498), should you have any questions pertaining to this matter.

Sincerely,

 for David O. Barnes

David O. Barnes
Manager DOT & Integrity