



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

233 Peachtree Street Ste. 600
Atlanta, GA 30303

**NOTICE OF PROBABLE VIOLATION
and
PROPOSED COMPLIANCE ORDER**

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

June 19, 2008

Mr. Jim Lamanna
President
BP Pipelines (North America), Inc.
28100 Torch Parkway
Warrenville, IL 60555

CPF 2-2008-5007

Dear Mr. Lamanna:

On October 9-12 and 22-24, 2007, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected your BP Pipelines (North America), Inc. procedures for Integrity Management in Warrenville, Illinois.

As a result of the inspection, it appears that you have committed probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations. The items inspected and the probable violation(s) are:

1. **§192.905 How does an operator identify a high consequence area?**
 - (a) **General. To determine which segments of an operator's transmission pipeline system are covered by Subpart O, an operator must identify the high consequence areas. An operator must use method (1) or (2) from the definition in §192.903 to identify a high consequence area.**
 - 1) The BP IMP does not account for inaccuracies in the HCA mapping process when identifying HCAs and HCA segment length. No buffer is applied to the Potential Impact Radius (PIR) and inaccuracies were stated to be as high as +/-50 to 100 ft. in measurements obtained from aerial photography. Onshore pipelines, excluding LA Basin (Line 211) and HCL (Line 893) (both 100% HCA) will need to be reanalyzed to incorporate the stated accuracy.

2) The initial effort to identify HCAs by 12/17/04 did not accurately account for identified sites in the HCA segment identification process. Identified sites were designated by points on structures and HCA segment were established based on point location rather than a PIC sliding along the pipeline for the length of the structure at its closest points of impact. The current practice requires all identified sites to be digitized as polygons.

2. **§192.905 How does an operator identify a high consequence area?**

(c) *Newly identified areas.* When an operator has information that the area around a pipeline segment not previously identified as a high consequence area could satisfy any of the definitions in §192.903, the operator must complete the evaluation using method (1) or (2).

The BP IMP does not provide a documented process for how new information is identified and integrated with the integrity management program. Further, the IMP states that HCA updates are to occur on a 3-year basis rather than on an annual or more frequent basis. Changes were made to the BP IMP between weeks 1 and 2 of the inspection to address this issue.

3. **§192.907 What must an operator do to implement this subpart?**

(a) *General.* No later than December 17, 2004, an operator of a covered pipeline segment must and follow a written integrity management program that contains all the elements described in §192.911 and that addresses the risks on each covered transmission pipeline segment.

The initial HCA segment identification process did not include the risers offshore that could affect the platforms, Okeanos (Nakika) and Cleopatra (Mad Dog), which are identified sites in the Mardi Gras System not identified by 12/17/04. Records indicated that one segment operated on 11/30/03 and the other segment on 02/25/05.

4. **§192.921 How is the baseline assessment to be conducted?**

(a) *Assessment methods.* An operator must assess the integrity of the line pipe in each covered segment by applying one or more of the following methods depending on the threats to which the covered segment is susceptible. An operator must select the method or methods best suited to address the threats identified to the covered segment (See §192.917).

The BP IMP does not make appropriate use of references to other documents which implement IMP activities. Examples include:

- Specification BPPL-STP 32-210 provides requirements for ensuring the reliability of ILI assessments, but this specification is not clearly referenced in context by the IMP.
- The procedure that controls hydro-testing to ensure Subpart J requirements are met is not referenced by the IMP.

Changes were made to the BP IMP between weeks 1 and 2 of the inspection to address these issues.

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

(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.S, Appendices A4.3 and A4.4, and any covered or noncovered 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.

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.

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.

8. **§192.933 What actions must be taken to address integrity issues?**

(d) Special requirements for scheduling remediation.--(1) Immediate repair conditions. An operator's evaluation and remediation schedule must follow ASME/ANSI B31.8S, section 7 in providing for immediate repair conditions. To maintain safety, an operator must temporarily reduce operating pressure in accordance with paragraph (a) of this section or shut down the pipeline until the operator completes the repair of these conditions.

The BP IMP states reduce pressure, shut down the line, or notify PHMSA if it discovers an immediate condition. If BP has a line operating at or below 30% SMYS they may simply notify PHMSA of the condition, rather than reduce pressure. There is no direction to immediately take a pressure reduction. BP stated that this is done at the 40% level on the liquid side, but changed to 30% to coincide with the gas Rule. This approach will be discussed internally with PHMSA management to determine if it meets the Rule intent. BP has not discovered any immediate condition in a HCA segment of its gas pipelines at this time.

9. §192.945 What methods must an operator use to measure program effectiveness?

(a) *General.* An operator must include in its integrity management program methods to measure, on a semi-annual basis, whether the program is effective in assessing and evaluating the integrity of each covered pipeline segment and in protecting the high consequence areas.

Section I of the BP IMP addresses the need to track threat specific metrics on a semi-annual basis. There is no documentation to demonstrate that these metrics are taken. Changes were made to the IMP between weeks 1 and 2 of the inspection to correct this issue.

Proposed Compliance Order

Pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration proposes to issue a Compliance Order to BP Pipelines (North America), Inc. Please refer to the *Proposed Compliance Order* that is enclosed and made a part of this Notice.

Warning Items

With respect to item(s): 1, 2, 3, 4, 5, 6, 8 and 9, we have reviewed the circumstances and supporting documents involved in this case and have decided not to conduct additional enforcement action or penalty assessment proceedings at this time. We advise you to promptly correct these item(s). Be advised that failure to do so may result in BP Pipelines (North America), Inc. being subject to additional enforcement action.

Response to this Notice

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.

In your correspondence on this matter, please refer to **CPF 2-2008-5007** and for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

for 

Linda Daugherty
Director, Southern
Pipeline and Hazardous Materials Safety Administration

Enclosures: *Proposed Compliance Order*
Response Options for Pipeline Operators in Compliance Proceedings

PROPOSED COMPLIANCE ORDER

Pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to issue to BP Pipelines (North America), Inc. a Compliance Order incorporating the following remedial requirements to ensure the compliance of BP Pipelines (North America), Inc. with the pipeline safety regulations:

1. In regard to Item Number 7 of the Notice pertaining to Risk Assessment, BP NA must conduct a risk assessment that follows ASME/ANSI B31.8S, section 5, and considers the identified threats for each covered segment. 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. BP NA must determine the risk (likelihood and consequences) for the gas lines and provide program procedures that describe the use of risk information as part of the Gas IMP.
2. BP NA must provide a timeline to PHMSA detailing the application of the Risk Assessment process to those pipeline segments included in BP NA's IMP.
3. This is to be accomplished within 30 days following receipt of the Final Order.
4. BP NA shall maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Linda Daugherty, Director, Southern Region, Pipeline and Hazardous Materials Safety Administration. Costs shall be reported in two categories: 1) total cost associated with preparation/revision of plans, procedures, studies and analyses, and 2) total cost associated with replacements, additions and other changes to pipeline infrastructure.