WARNING LETTER

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

August 18, 2009

Mr. Dwayne Burton
VP, Engineering Operations and Project Management
Kinder Morgan, Inc.
500 Dallas Street, Suite 1000
Houston, TX 77002

CPF 5-2009-1006W

Dear Mr. Burton:

On March 30-April 3 and April 27-30, 2009, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), pursuant to Chapter 601 of 49 United States Code, inspected your Integrity Management Program in Lakewood, Colorado.

As a result of the inspection, it appears you have committed probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations. The items inspected and the probable violations 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 this subpart, 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. An operator may apply one method to its entire pipeline system, or an operator may apply one method to individual portions of the pipeline system. An operator must describe in its integrity management program which method it is applying to each portion of the operator's pipeline system. The description must include the potential impact radius when utilized to establish a high consequence area. (See appendix E.I. for guidance on identifying high consequence areas.)

§192.903 What definitions apply to this subpart?
High consequence area means an area established by one of the methods described in paragraphs (1) or (2) as follows:

(1) An area defined as—
(i) A Class 3 location under §192.5; or
(ii) A Class 4 location under §192.5; or
(iii) Any area in a Class 1 or Class 2 location where the potential impact radius is greater than 660 feet (200 meters), and the area within a potential impact circle contains 20 or more buildings intended for human occupancy; or
(iv) Any area in a Class 1 or Class 2 location where the potential impact circle contains an identified site.

(2) The area within a potential impact circle containing—
(i) 20 or more buildings intended for human occupancy, unless the exception in paragraph (4) applies; or
(ii) An identified site.

(3) Where a potential impact circle is calculated under either method (1) or (2) to establish a high consequence area, the length of the high consequence area extends axially along the length of the pipeline from the outermost edge of the first potential impact circle that contains either an identified site or 20 or more buildings intended for human occupancy to the outermost edge of the last contiguous potential impact circle that contains either an identified site or 20 or more buildings intended for human occupancy. (See Figure E.I.A. in Appendix E.)

(4) If in identifying a high consequence area under paragraph (1)(iii) of this definition or paragraph (2)(i) of this definition, the radius of the potential impact circle is greater than 660 feet (200 meters), the operator may identify a high consequence area based on a prorated number of buildings intended for human occupancy with a distance of 660 feet (200 meters) from the centerline of the pipeline until December 17, 2006. If an operator chooses this approach, the operator must prorate the number of buildings intended for human occupancy based on the ratio of an area with a radius of 660 feet (200 meters) to the area of the potential impact circle (i.e., the prorated number of buildings intended for human occupancy is equal to 20 x (660 feet) [or 200 meters]/potential impact radius in feet [or meters]2).**

- **Item 1A: §192.905(a) & §192.903**

  The regulations require an operator to identify high consequence areas using either method 1 or method 2 as defined in §192.903. Structure polygons in the KMI GIS / Dataviewer system are mis-aligned from the structures and pipeline as shown by aerial photography. This data inaccuracy could result in HCAs not being identified since the operator in this case is using method 2 which requires structures to be counted inside the potential impact circle.

  Evidence: Screen captures from Petris Data Viewer (HCA-StructureScreenCaptures.doc)

2. §192.921 How is the baseline assessment to be conducted?

(b) Prioritizing segments. An operator must prioritize the covered pipeline segments for the baseline assessment according to a risk analysis that considers the potential threats to each covered segment. The risk analysis must comply with the requirements in § 192.917.

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

(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 operator must prioritize the covered segment as a high risk segment for the baseline assessment or a subsequent reassessment

- **Item 2A: §192.921(b) & §192.917(4)**

  The regulation requires the operator to include pipeline segments that contain low frequency electric resistant welded (LFERW) pipe as a high risk segment in their baseline assessment plans (BAP) if the operator does not have a Subpart J hydrostatic test record to show that the segment has been tested for this manufacturing defect. Furthermore, the regulation requires that these high risk segments be assessed in the top fifty percent (50%) of the BAP by 12/17/2007. The initial review indicated the following pipeline segments had not been completely assessed as of this date:

  - KMIGT - 8 lines, 9 HCAs, 4706 feet of HCAs
  - KMTP & Tejas - 11 lines, 18 HCAs, 15421.9 feet of HCA

  Further review showed that a very small amount of the HCA footage had not been assessed. It appears that this omission occurred due to deficiencies in the threat identification and risk analysis process in that PIRAMID reflects a “zero score” for the manufacturing defects attribute on LFERW and lap-weld pipe. In addition, no prior hydrostatic pressure test data can be substantiated to document that these manufacturing defects are stable.

  Evidence: KMIGT BAP (IMP Appendix C); Tejas BAP (IMP Appendix D); KMIGT BAP (IMP Appendix G); ERW Pipe Summary (KM_ERW_PipeSummary.xls); ERW and Manufacturing Threat Potential (ERWandMnfThreatPotential.xlsx)

3. §192.911 What are the elements of an integrity management program?
An operator's initial integrity management program begins with a framework (see § 192.907) and evolves into a more detailed and comprehensive integrity management program, as information is gained and incorporated into the program. An operator must make continual improvements to its program. The initial program framework and subsequent program must, at minimum, contain the following elements. (When indicated, refer to ASME/ANSI B31.8S (ibr, see § 192.7) for more detailed information on the listed element.)
(a) An …
(k) A management of change process as outlined in ASME/ANSI B31.8S, section 11.

- **Item 3A: §192.911(k) & ASME B31.8S-2001, section 11 (a)**

The regulation requires that all programmatic changes be covered by the management of change (MOC) process. The BAP changes are annually documented on a global basis rather that documenting the changed program elements for each pipeline segment. Required MOC elements should include the reason for change, authority for approving change, analysis of implications, and communication of change to affected parties.

Evidence: MOC for 2007 BAP Revisions (BAP_RevisionsMOC2007.doc);
MOC for 2008 BAP Revisions (BAP_RevisionsMOC2008.doc);
IMP Section 5.6, Changes; O&M Procedure 155, Management of Change

4. §192.917 How does an operator identify potential threats to pipeline integrity and use the threat identification in its integrity program?

(a) Threat identification. An operator must identify and evaluate all potential threats to each covered pipeline segment. Potential threats that an operator must consider include, but are not limited to, the threats listed in ASME/ANSI B31.8S (incorporated by reference, see §192.7), section 2, which are grouped under the following four categories:

(1) Time dependent threats such as internal corrosion, external corrosion, and stress corrosion cracking;
(2) Static or resident threats, such as fabrication or construction defects;
(3) Time independent threats such as third party damage and outside force damage; and
(4) Human error.

ASME B31.8S-2001, Section 5 Risk Assessment

5.10 Prioritization for Prescriptive-Based and Performance-Based Integrity Management Programs

The integrity plan shall also provide for the elimination of any specific threat from the risk assessment. For a prescriptive integrity management program, the minimum data required and the criteria for risk assessment in order to eliminate a threat from further consideration are specified in Non-mandatory Appendix A. Performance-

based integrity management programs that use more comprehensive analysis methods should consider the following in order to exclude a threat in a segment:

***(a)* there is no history of a threat impacting the particular segment or pipeline system**
***(b)* the threat is not supported by applicable industry data or experience**
***(c)* the threat is not implied by related data elements**
***(d)* the threat is not supported by like/similar analyses**
***(e)* the threat is not applicable to system or segment operating conditions**

More specifically, item *(c)* considers the application of related data elements to provide an indication of a threat's presence when other data elements may not be available.

- **Item 4A: §192.947(d)**

The regulation requires an operator to document why a covered segment may not be subject to certain threats. This is done by an analysis justifying the elimination of the threat in question. Kinder Morgan eliminated the threat of external corrosion on certain covered segments without providing any documented justification for doing so. Therefore, Kinder Morgan is eliminating the need to conduct assessments looking for external corrosion on covered segments without providing a technical justification for doing so.

Evidence: KMI IMP BAPs (Appendix C – K).

5. §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.

ASME B31.8S-2001, Section 5 Risk Assessment

5.3 Risk Assessment Objectives

For application to pipelines and facilities, risk assessment has the following objectives:

***(a)* prioritization of pipelines/segments for scheduling integrity assessments and mitigating action**
***(b)* assessment of the benefits derived from mitigating action**
***(c)* determination of the most effective mitigation measures for the identified threats**
***(d)* assessment of the integrity impact from modified inspection intervals**
***(e)* assessment of the use of or need for alternative inspection methodologies**

***(f)* more effective resource allocation.**

Risk assessment provides a measure that evaluates both the potential impact of different incident types and the likelihood that such events may occur. Having such a measure supports the integrity management process by facilitating rational and consistent decisions. Risk results are used to identify locations for integrity assessments and resulting mitigative action. Examining both primary risk factors (likelihood and consequences) avoids focusing solely on the most visible or frequently occurring problems while ignoring potential events that could cause significantly greater damage. Conversely, the process also avoids focusing on less likely catastrophic events while overlooking more likely scenarios.

- **Item 5A: §192.917(c) & ASME B31.8S-2001, section 5 Risk Assessment**

  The regulation requires that the operator's conduct a risk assessment in order to prioritize the baseline and continual assessments. Kinder Morgan's PIRAMID program generates threat values for equipment failure, incorrect operations, and SCC, however, this data is not used to establish that these potential threats exist on a segment. Furthermore, this practice is inconsistent in that these values are then used in the risk summation process to generate risk prioritization rankings. Additionally, PIRAMID does not generate risk scores for segments having manufacturing defects such as LFERW or lap-welded pipe; PIRAMID reflects a "zero score" for the manufacturing defects attributed to LFERW and lap-weld pipe. Therefore, their Risk Assessment process is not producing fully supported and consistent decisions.

  Evidence: Review of the Top 20 HCA for each entity (ala Tejas - line 66) with threat drivers (Tejas_Top20.xls, and others).

6. §192.947 What records must an operator keep?
An operator must maintain, for the useful life of the pipeline, records that demonstrate compliance with the requirements of this subpart. At minimum, an operator must maintain the following records for review during an inspection.

(d) Documents to support any decision, analysis and process developed and used to implement and evaluate each element of the baseline assessment plan and integrity management program. Documents include those developed and used in support of any identification, calculation, amendment, modification, justification, deviation and determination made, and any action taken to implement and evaluate any of the program elements;

- **Item 6A: §192.947(d)**

  The regulation requires that decisions and analysis that are necessary to carry out the requirements of an integrity management program must be documented and retained for the life of the pipeline. The preventive and mitigative measures that Kinder Morgan selected for implementation are not identified in the review documentation on a covered segment-by-covered-segment basis. For example, covered segments with casings have gas leakage surveys over the entire length of the segment. Segments requiring these surveys are not identified.

  Evidence: Discuss Threats/P&MMs for North Region Area – District 309 to 201 (PMM309-311NorthRegion.doc).

Under 49 United States Code, § 60122, you are subject to a civil penalty not to exceed $100,000 for each violation for each day the violation persists up to a maximum of $1,000,000 for any related series of violations. 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 correct the items identified in this letter. Failure to do so will result in Kinder Morgan, Inc. being subject to additional enforcement action.

No reply to this letter is required. If you choose to reply, in your correspondence please refer to **CPF 5-2009-1006W.** 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).

Sincerely,

Chris Hoidal
Director, Western Region
Pipeline and Hazardous Materials Safety Administration

cc: PHP-60 Compliance Registry
PHP-500 J. Gilliam (#123448)