



US Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St S W
Washington D C 20590

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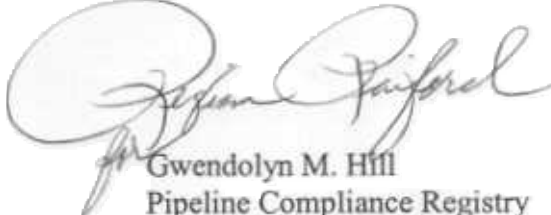
Mr. Jerry Wilhorn
Vice President of Operations
Kinder Morgan Energy Partners, L.P.
500 Dallas Street, Suite 1000
Houston, TX 77002

Re: CPF No. 4-2003-5010H

Dear Mr. Wilhorn:

Enclosed is an Amendment to Corrective Action Order. This Amendment revises the Corrective Action Order that was issued to Kinder Morgan Energy Partners, LP (Respondent) on August 6, 2003 by mandating additional corrective action. The August 6, 2003-Order restricted operating pressure and required other corrective action on Respondent's 8-inch hazardous liquid pipeline between its Tucson and Phoenix pump stations following a July 30, 2003 rupture. Following the discovery of stress corrosion cracking (SCC) on the 8-inch pipeline, this Amendment now requires Respondent to evaluate this line and the parallel 6-inch line for additional SCC. Your receipt of the enclosed document constitutes service of that document under 49 C.F.R. § 190.5. Service is being made by certified mail. The terms and conditions of this Amendment to Corrective Action Order are effective upon receipt.

Sincerely,



Gwendolyn M. Hill
Pipeline Compliance Registry
Office of Pipeline Safety

Enclosure

VIA CERTIFIED MAIL (RETURN RECEIPT REQUESTED) AND TELECOPY

**DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION
OFFICE OF PIPELINE SAFETY
WASHINGTON, DC 20590**

In the Matter of)	
)	
Kinder Morgan)	CPF No. 4-2003-5010H
Energy Partners, L.P.,)	
)	
Respondent.)	

AMENDMENT TO CORRECTIVE ACTION ORDER

Purpose and Background

On August 6, 2003, the Associate Administrator for Pipeline Safety issued a Corrective Action Order in this case finding that continued operation by Kinder Morgan Energy Partners, L.P. (Respondent or Kinder Morgan) of its 8-inch pipeline Tucson-Phoenix line would be hazardous to the public, property, and the environment without corrective measures. The August 6, 2003 Order was issued as a result of the July 30, 2003 rupture of the line at mile post 314.12 near Tucson, Arizona. The Order restricts the operating pressure of the pipeline and requires Kinder Morgan to develop and submit a protocol for mechanical and metallurgical testing of the ruptured pipe section and a plan for corrective measures for approval to the Office of Pipeline Safety (OPS).

Pursuant to the August 6, 2003 Order, Respondent hired a third party to analyze the ruptured section of pipe. The third party contractor, Exponent Failure Analysis Associates (Exponent), notified Kinder Morgan by letter dated August 11, 2003 that it had concluded metallurgical analysis of the ruptured pipe and found that the rupture occurred as a result of high pH stress corrosion cracking (SCC). As part of its plan for corrective measures, Respondent began hydrostatic testing the pipeline. On August 20, 2003, during the hydrostatic testing, a second failure occurred. Exponent again conducted a metallurgical analysis of the damaged pipe, and concluded in correspondence dated September 5, 2003 that SCC caused the rupture.

Kinder Morgan operates a refined petroleum products pipeline system between El Paso, TX and Phoenix, AZ. The entire pipeline system is approximately 427 miles long. For the portion of the system that connects the pump stations located between Tucson and Phoenix, a distance of approximately 123 miles, there are two Kinder Morgan pipelines that, in part, share a common right-of-way. The 8-inch westernmost pipeline that is the subject of the August 6, 2003 Order in this case is referred to as LS 6/7/117 by Kinder Morgan. This westernmost pipeline also contains 12-inch diameter pipe. The other, a 6-inch easternmost pipeline, is referred to LS 53/54 by Kinder Morgan.

The easternmost 6-inch pipeline is the subject of the corrective action order issued in March 2001 in CPF No. 4-2001-5010-H. Under that order, the easternmost pipeline is operating under a restricted pressure. Corrosion has been identified as a concern on that line. Although the causes of the corrosion have not been established, the condition of the coating is suspected. Poor coating can be one of the factors in susceptibility to SCC. In addition, for much of its length, the easternmost 6-inch pipeline runs parallel to the westernmost 8-inch pipeline within the same right-of-way. The SCC that caused the July 30 rupture on the 8-inch pipeline and the subsequent failure during hydrostatic testing were high pH SCC, which occurs in a narrow cathodic potential range. These factors appear to be present on the 6-inch pipeline.

On October 1, 2003, OPS issued an advisory bulletin to owners and operators of gas and hazardous liquid pipelines advising them to assess their pipelines for susceptibility to SCC. The advisory bulletin has been posted on the OPS website and has been sent to the Federal Register for publication. The bulletin contains detailed instructions on identifying and addressing the SCC threat. The advisory bulletin has been posted on the OPS website at <http://ops.dot.gov>.

Determination of Necessity for Corrective Action Order and Right to Hearing

Section 60112 of Title 49, United States Code, provides for the issuance of corrective action orders (and amendments), after reasonable notice and the opportunity for a hearing. The required corrective action may include the suspended or restricted use of a pipeline facility, physical inspection, testing, repair, replacement, or other action as appropriate. The basis for making the determination that a pipeline facility is hazardous, requiring corrective action, is set forth both in the above referenced statute and 49 C.F.R. §190.233.

Section 60112, and the regulations promulgated thereunder, provides for the issuance of a Corrective Action Order without prior opportunity for notice and hearing upon a finding that failure to issue the Order expeditiously will result in likely serious harm to life, property or the environment. In such cases, an opportunity for a hearing will be provided as soon as practicable after the issuance of the Order.

I note that a second failure occurred on the westernmost 8-inch line during hydrostatic testing and that stress corrosion cracking is a relatively new phenomenon on liquid pipelines. After evaluating the foregoing findings, I find that the continued operation of the affected segment of Respondent's hazardous liquid pipeline without these additional corrective measures would be hazardous to life, property and the environment. In light of the identification of stress corrosion cracking discovered on the westernmost 8-inch line and the environmental conditions to which the easternmost 6-inch line is subject, I find that the continued operation of the easternmost 6-inch line without these additional corrective measures would be hazardous to life, property and the environment.

Accordingly, this Amendment to Corrective Action Order mandating corrective action is issued without prior notice and opportunity for a hearing. The terms and conditions of this Amendment are effective upon receipt.

Required Corrective Action

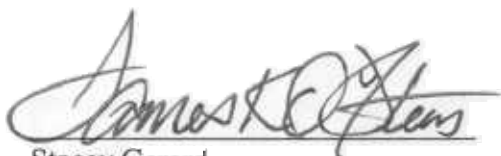
Therefore, pursuant to 49 U.S.C. § 60112, I hereby order Respondent to take the following additional corrective actions with respect to its hazardous liquid pipeline designated as LS 6/7/117 and LS 53/54, running between its Tucson and Phoenix pump stations:

1. | Develop a written plan to evaluate LS 6/7/117 and LS 53/54 to determine whether other areas exist on this pipeline where SCC is present as follows:
 - Since SCC was determined to be the cause of both the July 30, 2003 rupture and the August 20, 2003 hydrostatic test failure, the plan must address the cause of SCC on this pipeline.
 - The plan must take into account the most current and relevant SCC evaluation techniques published in ASME B31.8S-Managing System Integrity of Gas Pipelines, DRAFT Proposed NACE Technical Committee Report-External Stress Corrosion Cracking of Underground Pipelines, and Canadian Energy Pipeline Association Stress Corrosion Cracking Recommended Practices.
 - The plan must identify any sections of these lines that Respondent determines are not susceptible to SCC and include analysis that supports those determinations.
 - The plan must include a timetable for the completion of the assessment and remediation for each pipeline section where SCC is discovered.
 - Include a pilot for using direct assessment to address discovery of areas with SCC on the lines.
 - Include appropriate remedial measures to ensure the long-term integrity of the pipe.
2. Within 30 days of receipt of this Amendment, submit the written plan for prior approval by the Director, Southwest Region, OPS. Submit the plan to: Director, Southwest Region, Office of Pipeline Safety, 2320 LaBranch Street, Suite 2100, Houston, TX 77004.
3. Revise the plan as necessary to incorporate new information obtained during the failure investigation and analysis actions required by this Order. Submit such plan revisions to the Director for prior approval. The Director may approve plan elements incrementally.
4. Implement the plan as approved, including any revisions to the plan.
5. The Director, Southwest Region, OPS may, in writing, grant an extension of time for compliance with any of the terms of this Order for good cause. A request for an extension must be in writing.
6. The corrective actions required by this Amendment are in addition to and do not waive any requirements contained in the August 6, 2003 Order or in the corrective action order issued in CPF No. 4-2001-5010-H. This Amendment does not waive requirements under 49 C.F.R. Part 195, including the integrity management program regulations.

After receiving and analyzing additional data, OPS may identify other corrective measures that need to be taken. In that event, Respondent will be notified of any additional measures required. To the extent consistent with safety, Respondent will be afforded notice and an opportunity for a hearing prior to the imposition of any additional corrective measures.

Within 10 days of receipt of this Amendment, Respondent may request a hearing, to be held as soon as practicable, by notifying the Associate Administrator for Pipeline Safety in writing, delivered personally, by mail or by telecopy at (202) 366-4566. The hearing will be held in Houston, TX or Washington, DC on a date that is convenient to both OPS and Respondent. Decisions of the Associate Administrator shall be final.

Failure to comply with this Order may result in the assessment of civil penalties of not more than \$100,000 per day and in referral to the Attorney General for appropriate relief in United States District Court.



Stacey Gerard
Associate Administrator
for Pipeline Safety

OCT - 3 2003

Date Issued