



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

APR 21 2005


Mr. Richard D. Kinder
Chairman, President, and CEO
Kinder Morgan Energy Partners, L.P.
500 Dallas Street, Suite 1000
Houston, TX 77002

Re: CPF No. 5-2005-5020H

Dear Mr. Kinder:

Enclosed is a Corrective Action Order issued by the Associate Administrator for Pipeline Safety in the above-referenced case. It requires you to take certain corrective actions, including a pressure reduction, with respect to your LS-11/12/13 Rocklin, CA to Reno, NV hazardous liquid pipeline. Service is being made by certified mail and facsimile. Your receipt of this Corrective Action Order constitutes service of that document under 49 C.F.R. § 190.5. The terms and conditions of this Corrective Action Order are effective upon receipt.

Sincerely,


for James Reynolds
Pipeline Compliance Registry
Office of Pipeline Safety

Enclosure

cc: Mr. Jerry Milhorn, Vice President, Operations
Mr. Thomas A. Bannigan, President, Products Pipelines
Mr. Chris Hoidal, Regional Director, Western Region, OPS

VIA CERTIFIED MAIL (RETURN RECEIPT REQUESTED) AND TELECOPY

**DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
OFFICE OF PIPELINE SAFETY
WASHINGTON, DC 20590**

In the Matter of)	
Kinder Morgan Energy Partners, L.P.,)	CPF No. 5-2005-5020H
Respondent.)	

CORRECTIVE ACTION ORDER

Purpose and Background

This Corrective Action Order is being issued, under authority of 49 U.S.C. § 60112, to require Kinder Morgan Energy Partners, L.P. (Respondent) to take the necessary corrective action to protect the public, property, and the environment from potential hazards associated with a failure involving Respondent's LS-11/12/13 Rocklin, CA to Reno, NV (Rocklin-Reno) hazardous liquid pipeline.

At an unknown date and time, a failure occurred on Respondent's Rocklin-Reno line in Placer County, CA resulting in the release of gasoline. The cause of failure has been preliminarily attributed to damage from wrinkle bends made during construction of the pipeline. Dents and pipe associated with the wrinkle bends indicate stress corrosion cracking (SCC), disbonded coating, and general corrosion. Pursuant to 49 U.S.C. § 60117, the Western Region, Office of Pipeline Safety (OPS) initiated an investigation of the incident. The California State Fire Marshal (CASFM), which has authority to act as an interstate agent for OPS, responded to the failure and continues participating in the investigation along with OPS inspectors.

Preliminary Findings

- At an unknown date and time, Respondent's Rocklin-Reno line experienced a failure in Placer County, CA resulting in the release of an unknown quantity of refined petroleum products in a snow-packed area of the Sierra Mountains approximately three miles west of Truckee, CA.
- The failure site is located approximately at Mile Post 75.95.
- Respondent became aware that the Rocklin-Reno line may have experienced a release at or around 11:15 A.M. PST on April 1, 2005, after a skier reported the smell of gasoline in the vicinity of the failure to authorities. Respondent shut down the Rocklin-Reno line and reported the possible failure to the National Response Center at 12:48 P.M. PST. At approximately 6:20

P.M. PST, Respondent de-pressured and emptied the Rocklin-Reno line by draining it downhill toward the pipeline terminal in Reno, NV.

- Attempting to locate the source of the leak, Respondent began excavation activities in the vicinity of the suspected failure on the morning of April 2. Snow over the pipeline of depths exceeding twenty feet and blizzard conditions hampered access to the site and excavation activities. On April 4, at approximately 6 P.M. PST, Respondent identified and confirmed the location of the failure at Mile Post 75.95 after injecting a gas tracer into the line. A boulder was located over the pipeline in the immediate area of the identified failure location.
- On April 5, Respondent removed and replaced a 14.5-foot section of pipe containing the failure site under the observation of the CASFM. Visual inspection of the removed pipe revealed multiple dents aligned in two axial rows on the top portion of the pipe. A crack found in one of the dents appeared to be the likely source of the leak.
- No fires, injuries, or fatalities were reported in connection with the incident. Refined products were released into headwater streams of Donner Creek, an area designated by pipeline safety regulations as unusually sensitive to environmental damage because of its connection to drinking water resources and presence of certain ecological communities. Respondent used booms to contain the spread of product into Donner Creek.
- Respondent's Rocklin-Reno line transports refined petroleum products including diesel fuel, jet fuel, and gasoline to tank farms, wholesalers, an airport, and defense facilities. Its total length is approximately 120.92 miles. Portions of the pipeline traverse highways and are routed through or near wildlife habitats, drinking water resources, populated areas and bodies of water.
- Respondent sent the failed portion of the pipeline to Exponent Failure Analysis in Menlo Park, CA for metallurgical examination. Chain of custody of the pipe and the metallurgical examination were observed by CASFM and OPS inspectors. Preliminarily, the cause of failure has been attributed to damage from wrinkle bends made during construction of the pipeline. Dents and pipe associated with the wrinkle bends indicate stress corrosion cracking (SCC), disbanded coating, and general corrosion.
- On October 8, 2003, OPS issued an advisory bulletin to owners and operators of hazardous liquid and gas pipelines advising them to assess their pipelines for susceptibility to SCC. The advisory bulletin has been published in the Federal Register (58 Fed. Reg. 58166) and on the OPS website at <http://ops.dot.gov>. The advisory bulletin contains detailed instructions on identifying and addressing the SCC threat.
- The Rocklin-Reno pipeline contains pipe of varying diameter, wall thickness, grade, and coating. The LS-12 portion of the Rocklin-Reno pipeline containing the failure site was installed in 1957 and is constructed of 8.625-inch nominal diameter, 0.250-inch wall thickness, X-46 grade, seamless pipe manufactured by National Tube. The Rocklin-Reno line is cathodically protected by impressed current.

- The maximum operating pressure (MOP) of the Rocklin-Reno line is 1920 psig at the Cisco Grove Pump Station, as established by hydrostatic pressure test in 1957. At the time of notification of the possibility of failure, the pressure at the failure site is estimated to have been 375 psig.
- Respondent performed internal inspections on the Rocklin-Reno line with deformation and magnetic flux leakage in-line inspection tools in June 1997.
- In March 1997, Respondent experienced a release approximately 800 feet from the current failure site. The 1997 release was attributed to third party damage from the installation of fiber optic utility lines.
- Respondent resumed limited operation of the Rocklin-Reno line at approximately 4 P.M. PST on April 5, 2005 at a discharge pressure of approximately 1536 psig at its Cisco Grove Pump Station (80% of MOP).

Determination of Necessity for Corrective Action Order and Right to Hearing

Section 60112 of Title 49, United States Code, provides for the issuance of a Corrective Action Order, after reasonable notice and the opportunity for a hearing, requiring corrective action, which 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, a copy of which is enclosed.

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.

After evaluating the foregoing preliminary findings of fact, I find that the continued operation of Respondent's Rocklin-Reno hazardous liquid pipeline without corrective measures would be hazardous to life, property and the environment. Additionally, after considering the age of the pipe, the proximity of the pipeline to unusually sensitive area drinking water and ecological resources and populated areas, the combustible nature of the products the pipeline transports, the pressure required for transporting the material, preliminary indications of SCC, general corrosion, and other damage at the failure site, and the ongoing investigation to make a final determination as to the cause of the failure, I find that a failure to expeditiously issue this Order requiring immediate corrective action would likely result in serious harm to life, property, or the environment.

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

Within 10 days of receipt of this Order, 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 Lakewood, CO or Washington, DC on a date that is mutually convenient to OPS and Respondent.

After receiving and analyzing additional data in the course of this investigation, OPS may identify other corrective measures that need to be taken. In that event, Respondent will be notified of any additional measures required and amendment of this Order will be considered. 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.

Required Corrective Action

Pursuant to 49 U.S.C. § 60112, I hereby order Kinder Morgan Energy Partners, L.P. to immediately take the following corrective actions with respect to its Rocklin-Reno hazardous liquid pipeline:

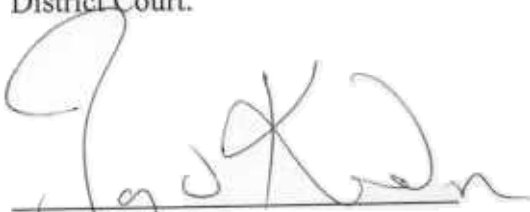
1. Do not exceed 80 percent (80%) of the actual operating pressure in effect at the Cisco Grove Pump Station just prior to the April 1, 2005 notification of possible failure. Specifically, the discharge pressure is not to exceed 1536 psig at the Cisco Grove Pump Station. If the ongoing investigation reveals that the operating pressure of 1536 psig cannot be sustained because of safety concerns, the Director, Western Region, may require a pressure reduction based on the actual operating pressure at the failure site just prior to the April 1, 2005 notification of possible failure. This pressure restriction will remain in effect until written approval to increase the pressure or return the pipeline to its pre-failure operating pressure is obtained from the Director, Western Region, OPS.
2. Re-evaluate the data from the in-line inspection tool runs performed in 1997, including information obtained from the resulting excavations, for the purpose of determining whether any anomalies were present that could have contributed to the failure and whether any other anomalies of a similar magnitude are present elsewhere on the pipeline. Make the 1997 in-line inspection results available to OPS or its representative. Re-evaluation must occur within 14 days of receipt of this Order. Make timely repairs as required by the pipeline safety regulations and in accordance with your approved repair procedures.
3. Within 45 days of receipt of this Order, perform confirmatory digs on a statistically significant sample of locations (a minimum of 10 sites) to corroborate the data obtained from the 1997 in-line inspection tool run. Use criteria (e.g., change in elevation, pipeline alignment, locations of known geological instability) to ensure that locations with dents, wrinkles, ripples, buckles, and other flaws are identified.

- A. Evaluate excavated pipe sections for evidence of dents or wrinkles, corrosion, disbonded coating, and any crack-like features, including SCC.
 - B. Make timely repairs as required by the pipeline safety regulations and in accordance with your approved repair procedures.
 - C. Provide field non-destructive testing results, including the correlation of predicted dent depth from the 1997 in-line inspections and actual field measurements, to the Director, Western Region, OPS.
4. Within 90 days of receipt of this Order, perform an in-line inspection of the Rocklin-Reno pipeline with a deformation tool capable of characterizing dent geometry and depth through direct mechanical measurement. The tool must utilize sufficient sensors to calculate pipe wall strain. Prior to performing the inline inspection and other actions required by this item, submit the proposed action to the Director, Western Region, OPS, for approval.
 - A. Evaluate and remediate any anomalies identified as required by the pipeline safety regulations and in accordance with your approved repair procedures.
 - B. Perform representative digs of anomalies identified to verify and assess the characteristics found in accordance with Item 3C.
 5. Submit all required information to: Director, Western Region, Office of Pipeline Safety, Golden Hills Center, Suite A-250, 12600 West Colfax Avenue, Lakewood, CO 80215-3736.
 6. The Director, Western Region, OPS may 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.

The corrective actions required by this Corrective Action Order are in addition to and do not waive any requirements that apply to the pipeline under 49 C.F.R. Part 195, including the integrity management program regulations.

Respondent may appeal any decision of the Director to the Associate Administrator for Pipeline Safety. 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

4/2/05
 Date Issued

for