



U.S. Department
of Transportation

MAY 8 2012

1200 New Jersey Avenue SE
Washington, DC 20590

**Pipeline and Hazardous
Materials Safety
Administration**

VIA CERTIFIED MAIL AND FAX TO: (719) 520-4899

Mr. Michael Catt
Vice President, Operations
Mojave Pipeline Operating Company
2 North Nevada, Suite 1000
Colorado Springs, CO 80944

Re: CPF No. 5-2012-1008S

Dear Mr. Catt:

Enclosed please find the Safety Order issued in the above-referenced case. It makes a finding that the Mojave Pipeline has a condition or conditions that pose a pipeline integrity risk and specifies actions that must be taken by Mojave Pipeline Operating Company to ensure that the public, property, and the environment are protected from the risk. When the terms of the order have been completed, as determined by the Director, Western Region, this enforcement action will be closed. Service of the Safety Order by certified mail is deemed effective upon the date of mailing, or as otherwise provided under 49 C.F.R. § 190.5.

Thank you for your cooperation in this matter.

Sincerely,

Jeffrey D. Wiese
Associate Administrator
for Pipeline Safety

Enclosure

cc: Mr. Chris Hoidal, Director, Western Region, OPS
Mr. Alan Mayberry, Deputy Associate Administrator for Pipeline Safety, OPS

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

**U.S. DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
OFFICE OF PIPELINE SAFETY
WASHINGTON, D.C. 20590**

In the Matter of)

Mojave Pipeline Operating Company,)

Respondent.)

CPF No. 5-2012-1008S

SAFETY ORDER

Pursuant to 49 U.S.C. § 60117, the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), conducted an investigation of the safety of the Mojave Pipeline, an interstate gas transmission pipeline, arising at an incident that occurred on May 2, 2012, near Arvin, California. The Mojave Pipeline is operated by Mojave Pipeline Operating Company (MPOC or Respondent). MPOC, a subsidiary of the El Paso Natural Gas Company, operates approximately 560 miles of pipeline that connect with other pipeline systems, including the El Paso Natural Gas system near Cadiz, California; the El Paso Natural Gas and Transwestern Pipeline Company, LLC systems at Topock, Arizona; and the Kern River Gas Transmission Company system in California.¹

On May 2, 2012, at approximately 8:05 a.m. P.D.T., a reportable incident occurred near Arvin, California, on the Mojave Pipeline. The incident resulted in the release of an undetermined quantity of natural gas into the atmosphere (Failure).

As a result of a preliminary failure investigation of the Failure, the Director, Western Region, OPS (Director), issued to Respondent, by letter dated May 4, 2012, a Notice of Proposed Safety Order (Notice). In accordance with 49 C.F.R. § 190.239, the Notice proposed finding that conditions exist on the Mojave Pipeline that pose a pipeline integrity risk to public safety, property or the environment, and proposed that Respondent take certain measures to ensure that the public, property, and the environment are protected from the risk.

MPOC responded to the Notice by letter dated May 4, 2012. In its letter, Respondent expressed its intent to comply with the terms of the Notice as proposed, authorizing the entry of this Safety Order. Respondent did not request a hearing, and therefore has waived its right to one.

¹ <http://www.sec.gov/Archives/edgar/data/31986/000119312512079791/d268735d10k.htm>

Findings of Integrity Risk

Respondent did not contest the proposed findings in the Notice that the Mojave Pipeline has a condition or conditions that pose a pipeline integrity risk. Accordingly, pursuant to 49 U.S.C. § 60117(l) and 49 C.F.R. § 190.239, I find as follows:

- The Mojave Pipeline is a 42” natural gas transmission line running approximately 560 miles from the Topock Compressor Station at the California-Arizona border to Kern County, California. At the line’s compressor station in Daggett, California, located 143 miles downstream of the Topock compressor station, the Mojave Pipeline interconnects with the Kern River Gas Transmission Company’s natural gas transmission pipeline system. From Daggett to Arvin, the combined pipeline is known as the “Common Facilities,”² and ends at a junction point near Arvin, where the line divides into two lateral lines. This junction is known generally as the Bifurcation Point (M.P. 118+1887).
- Beginning at the Bifurcation Point, the 42-inch O.D. Line No. 1901 (West Lateral) extends toward Taft, California, and the 30” O.D. Line No. 1902 (East Lateral) extends toward Bakersfield, California.
- The Maximum Allowable Operating Pressure (MAOP) of the Mojave Pipeline is 1200 psig from Topock, Arizona, to the Bifurcation Point. The West Lateral and the East Lateral leaving the Bifurcation Point each have MAOPs of 930 psig.
- According to MPOC, on May 2, 2012, at about 4 a.m. Mountain Daylight Time (MDT), gas controllers for MPOC began noticing a drop of line pressure as measured at Main Line Valve (MLV) 323, which is located at the Bifurcation Point. Approximately one hour later, Kern River took its compressor station at Good Springs off-line.³ The line pressure on the Common Facilities continued to drop at a slow steady rate. At approximately 5:45 a.m. MDT, there was a somewhat more significant drop of pressure at the Bifurcation Point, as reported to MPOC Gas Control by the pressure transmitter at MLV 323. MPOC Gas Control called an operations technician in the Bakersfield area to investigate the dropping pressure.⁴
- At approximately 9:20 a.m. MDT, MPOC Gas Control received a call from the Sycamore Golf Course, located near the Bifurcation Point, reporting blowing gas in the area. Mojave field personnel in the field thereupon requested that the El Paso Operations Control Center close the valve and the other valves downstream of the Failure site. The line blew down at approximately 12:30 p.m. P.D.T.

² These facilities are known as the “Common Facilities” because Mojave and Kern River have an undivided interest in the facilities and each provides transportation services to its own customers on this portion of the pipe under its own FERC-approved gas tariff.

³ Kern River’s Good Spring compressor station is located approximately 234 miles upstream of the Bifurcation Point.

⁴ This information was received from MPOC and has not been independently verified.

- The Failure occurred approximately six miles southwest of the Arvin city limits near the Sycamore Canyon golf course. The release occurred in a fenced area at the southwest corner of the golf course. The north, east, and south sides of the facility are bordered by an orchard; the entire area is in a relatively remote agricultural region. There were no known injuries, fire, or evacuation resulting from the Failure.
- Mojave reported the Failure to the National Response Center (NRC Report No. 1010322) on May 2, 2012, at approximately 9:28 a.m. (PDT). In the NRC Report, Mojave estimated the duration of the release to have been approximately 40 minutes.
- When the lines were fully shut-in, personnel determined that all four relief valves at the Bifurcation Point had been damaged. There were four (4) relief valves that came off of a 30" header downstream of MPOC's 42" mainline isolation valve #323 to protect the two lateral lines leaving the Bifurcation Point. The relief valves were set at 940, 950, 960, and 970 psig, respectively. At the time of the Failure, the highest pressure was 916 psig at the Failure site. The vent piping for these devices was supported by two vertical members and a horizontal cross member at the Bifurcation Point.
- The Mojave Pipeline was built between 1991-1992.
- The cause of the failure is unknown and the investigation is still ongoing.

Issuance of Safety Order

Section 60117(l) of Title 49, United States Code, provides for the issuance of a safety order, after reasonable notice and the opportunity for a hearing, requiring corrective measures, which may include physical inspection, testing, repair, or other action, as appropriate. The basis for making the determination that a pipeline facility has a condition or conditions that pose a pipeline integrity risk to public safety, property, or the environment is set forth both in the above-referenced statute and 49 C.F.R. §190.239.

After evaluating the foregoing findings and considering the age of the pipe involved, the hazardous nature of the product transported, the circumstances surrounding the Failure, including the uncertainties of the cause of the Failure and the potential for the conditions that caused the Failure to be present elsewhere on the Mojave Pipeline, the fact that the Mojave Pipeline services highly populated areas downstream, and the likelihood that the conditions could recur on other areas of the pipeline and potentially impact its serviceability, PHMSA finds that Respondent's Mojave Pipeline has a condition or conditions that pose a pipeline integrity risk to public safety, property, or the environment. Accordingly, PHMSA issues this Safety Order, which requires that Respondent take measures specified below to address the risk.

Corrective Measures

Pursuant to 49 U.S.C. § 60117(l) and 49 C.F.R. § 190.239, MPOC must take the following remedial requirements with respect to the segment of the Mojave Pipeline running from the Daggett Compressor station to the ends of the West Lateral and the East Lateral lines (Affected Segment):

1. Submit and execute a return to "reduced" service plan, for the Director's review, prior to restart of the Affected Segment.
2. Within two weeks of receipt of the Notice, submit to the Director for approval a protocol for conducting a metallurgical analysis (Metallurgical Analysis). Following approval by PHMSA, have an independent third party perform the Metallurgical Analysis, to be completed within 45 days following receipt of such approval. The testing and analysis shall be completed as follows:
 - (A) Document the chain of custody when handling and transporting the failed pipe section and other evidence originating from the Failure site;
 - (B) Utilize mechanical and metallurgical testing protocols, including selection of the testing laboratory, approved by the Director;
 - (C) Prior to commencing the mechanical and metallurgical testing, provide the Director with the scheduled date, time, and location of the testing to allow a PHMSA representative to witness the testing; and
 - (D) Ensure that the testing laboratory distributes all resulting reports in their entirety, whether draft or final, to the Director at the same time they are made available to Respondent.
3. When the Affected Segment is returned to service, operate the Affected Segment at a reduced pressure such that the pressure as measured at MLV 323 does not exceed 824 psig, which is a 10% reduction from the pre-failure pressure. MOPC Gas Control, working in conjunction with operations personnel in the field, must conduct remote monitoring and on-site, in-person monitoring of the pressure at MLV 323 at the Bifurcation Point for 24 hours a day, 7 days a week, until such time the Director agrees it is safe to return to full operating pressure.
4. Prior to asking for a return to full operating pressure, provide independent, adequate overpressure protection for the Bifurcation Station that does not rely on safety devices provided by the Kern River Gas Transmission pipeline system or MOPC's Daggett Station, and ensure that the MAOP levels of the Mojave Pipeline both upstream and downstream of the Bifurcation Station are not exceeded.
5. Conduct a forensic investigation of the SCADA data on the Common Facilities to determine whether there was any tampering with, or corruption of, the SCADA pressure data.
6. Evaluate available methods to further test the validity of the data being collected by the SCADA telemetry at the Bifurcation Point.
7. Assemble an internal root cause investigation team and prepare a report of the root cause analysis (RCA) of the failure. The RCA report must be completed within 90 days after the issuance of this Safety Order and submitted to the Director. At the request of the Director, representatives of MPOC shall meet with PHMSA to discuss the findings and the need for additional analysis before acceptance. At a minimum, the RCA should address the items in the attached Appendix A.

8. If the RCA indicates that the cause of the Failure may be indicative of more systemic operational issues (e.g., more widespread than a failure of one or two pieces of equipment), the Director may direct MPOC to develop and submit an appropriate Integrity Verification and Remediation Plan (IVRP) for other locations on the Common Facilities. If required, the IVRP shall be submitted to the Director for approval within 45 days following the submittal of the RCA report. The Director may approve plan elements incrementally. The IVRP, and any revisions, will automatically be incorporated by reference into this Safety Order.
9. If an IVRP is required, MPOC must prepare and submit monthly progress reports, starting 30 days after approval of the IVRP by the Director. The monthly reports must provide sufficient detail to allow the Director to track the process of the IVRP. MPOC must provide the Director an opportunity to have PHMSA personnel observe and inspect any activities required by the IVRP as they occur.
10. The Director may grant an extension of time for compliance with any of the terms of this Safety Order upon a written request timely submitted demonstrating good cause for an extension.
11. The Director may allow the removal or modification of the pressure restriction set forth in Item 3 above upon a written request from MPOC demonstrating that the hazard has been abated and that restoring the Affected Segment to its pre-failure operation pressure is justified based on a reliable engineering analysis showing that the pressure increase is safe, considering all known defects, anomalies, and operating parameters of the Affected Segment.
12. Respondent may appeal any decision of the Director to the Associate Administrator for Pipeline Safety. Decisions of the Associate Administrator shall be final.
13. It is requested, but not mandated, that the MPOC maintain documentation of the safety improvement costs associated with fulfilling this Safety Order and submit the total to Chris Hoidal, Director, Western Region, Pipeline and Hazardous Materials Safety Administration. It is requested that these costs 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.

On May 4, 2012, MPOC submitted a return to "reduced" service plan for the Director's review in compliance with Item 1 above.

In your correspondence on this matter, please refer to **CPF No. 5-2012-1008S** and for each document you submit, please provide a copy in electronic format whenever possible.

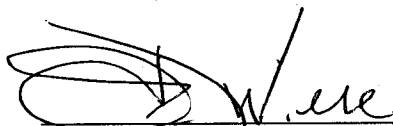
Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. § 552(b), along with the complete original document you must provide 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).

Respondent may appeal any decision of the Director to the Associate Administrator for Pipeline Safety. Decisions of the Associate Administrator shall be final.

The actions taken pursuant to this Safety Order are in addition to and do not waive any requirements that apply to Respondent's pipeline system under 49 C.F.R. Parts 190 through 199, under any other order issued to Respondent under authority of 49 U.S.C. Chapter 601, or under any other provision of Federal or state law.

After receiving and analyzing additional data in the course of this proceeding and implementation of the required tests and analysis, PHMSA may identify other safety measures that need to be taken. In that event, Respondent will be notified of any proposed additional measures and, if necessary, amendments to the Safety Order.

The terms and conditions of this Safety Order are effective upon service in accordance with 49 C.F.R. § 190.5.



Jeffrey D. Wiese
Associate Administrator
for Pipeline Safety

MAY 8 2012

Date Issued

Appendix A

The RCA addressed above should include the following information:

1. A timeline of all pertinent actions executed by control room personnel, field personnel, and supervisory personnel starting on May 2, 2012, at 3:00 a.m. PDT, through blow-down completion at approximately 12:30 PDT p.m. on May 2, 2012. This should include all personnel whose actions could have contributed to the release event at the Bifurcation Point, affected the emergency response to the release or assisted in the immediate investigation of the release. Please provide all names, titles and cell phone numbers for each person.
2. Relevant SCADA data, including raw data and pressure and flow trends for the Daggett Compressor Station (CS), each data point down the mainline up to the Bifurcation Point, including two data points downstream (DS) of the Bifurcation Point on the West Lateral and the East Lateral. Please include any additional SCADA information that is pertinent to the investigation, even if not specifically identified here.
3. All alignment sheets and piping and instrumentation diagrams (P&ID) showing pressure transmitters and valve installations, as well as telemetry points along the line from the Kern River interconnect at Daggett CS through two data points or mainline valves DS of Bifurcation Point.
4. Manufacturing specifications of all valves on the Affected Segment, from the Daggett Compressor Station through the Bifurcation Point and including two valves DS of Bifurcation Point on each lateral.
5. Pipe specifications for the 42" mainline from Daggett CS and the 30" line and 42" line DS of the Bifurcation Point generally. Please include manufacturer, SMYS, API designation, MAOP and how determined, wall thickness, coating type, and installation date(s) for each separate line section.
6. Maintenance records for all mainline valves from Daggett CS through the Bifurcation Point and two valves DS of the Bifurcation Point on each lateral and relief valves at Bifurcation Point, to include the past two DOT inspections and any other maintenance work performed at Bifurcation Point in the last two years.
7. Any facility work orders or project files for Bifurcation Point for the past two years.
8. Current/updated P&IDs for Daggett CS and Bifurcation Point.
9. Relief valve capacity calculations for each relief valve at Bifurcation Point.
10. Utilize a forensic specialist from the relief valve manufacturer on the MPOC RCA investigation team.
11. Original design specifications for the relief piping and support system and any subsequent modification and/or recalculations after each significant change in operational parameters.