



U.S. Department
of Transportation
Pipeline and Hazardous Materials
Safety Administration

1200 New Jersey Ave., SE
Washington, DC 20590

MAY 13 2009

VIA CERTIFIED MAIL [7005 1160 0001 0047 71331] AND FAX TO: (713) 989-1186

Mr. Jeryl Mohn
Senior Vice President, Operations and Engineering
Panhandle Eastern Pipeline Company, LP
5444 Westheimer Road
Houston, TX 77056-6306

Re: CPF No. 3-2009-1009H

Dear Mr. Mohn:

Enclosed is a Corrective Action Order issued in the above-referenced case. It requires you to take certain corrective actions with respect to your natural gas pipeline designated as Line 200 in connection with the May 5, 2009 failure near Rockville, Indiana. 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 Order are effective upon receipt.

Sincerely,

for

Jeffrey D. Wiese
Associate Administrator
for Pipeline Safety

Enclosure

cc: Mr. Ivan Huntoon
Director, Central Region, OPS

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

In the Matter of)	
)	
Panhandle Eastern)	CPF No. 3-2009-1009H
Pipeline Company, LP)	
)	
Respondent)	
)	

CORRECTIVE ACTION ORDER

Purpose and Background

This Corrective Action Order is being issued, under authority of 49 U.S.C. § 60112, to require Panhandle Eastern Pipeline Company, LP (“Respondent”), to take the necessary corrective action to protect the public, property, and the environment from potential hazards associated with a failure involving the 24-inch diameter Line 200.

On May 5, 2009, a failure occurred on the 24-inch diameter segment running between the Montezuma Compressor Station and the Zionsville Compressor Station approximately 3.6 miles northeast of Rockville, Indiana, resulting in the release of natural gas which ignited. The cause of the failure has not yet been determined. Pursuant to 49 U.S.C. § 60117, the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), initiated an investigation of the incident.

Preliminary Findings

- At approximately 4:22 p.m. EDT, on May 5, 2009, a rupture occurred on Respondent’s natural gas pipeline, resulting in the release of approximately 7.435 million cubic feet of natural gas. The failure occurred at Mile Post (MP) 8.9, approximately 3.6 miles northeast of the town of Rockville, Indiana. The incident was reported to the National Response Center (NRC Report No. 904705).

- When the gas ignited, a section of pipe approximately 10 feet in length was ejected from the ground leaving a large crater. The ensuing fire scorched an area approximately 200 yards by 100 yards. Emergency responders evacuated approximately 49 homes within a one mile radius of the failure site.

- Following the failure, Respondent's personnel initiated an emergency shut-down of the pipeline. Respondent's personnel then isolated the line by closing the upstream block valve at the Montezuma Compressor Station and the nearest downstream block valve GV 202 at MP 15.17. The natural gas fire burned out at 5:07 p.m. EDT and the secondary fires were extinguished at 5:59 p.m. EDT.
- The cause of the failure is unknown and the investigation is ongoing. The failed pipe section is being transported to a metallurgist for examination and failure analysis. The preliminary investigation indicates the possible presence of external corrosion at the failure site. A 15.7 mile long section of Line 200 currently remains out of service.
- The pipe in the affected segment was manufactured by National Tube in 1940 and is constructed of 24-inch x 0.312-inch w.t., grade B seamless pipe. It has a Bitumastic 50-B coating and an impressed current cathodic protection system.
- At the time of the incident, the estimated operating pressure of the pipeline was 792 psig at the Montezuma Compressor Station discharge and 784 psig at the failure site. The maximum allowable operating pressure (MAOP) of this line segment is 800 psig.
- Respondent's Line 200 originates in Liberal, Kansas and runs eastward to Detroit, Michigan. The affected segment crosses Parke, Putnam, and Hendricks Counties in Indiana. The eastern portion of the affected segment is located in a High Consequence Area (HCA) near heavily populated areas as it approaches the Zionsville Compressor Station in the suburbs of Indianapolis, Indiana. The line crosses Interstate Highways 74 and 65 and U.S. Highways 41 and 231 as well.
- Respondent performed a close-interval survey on the pipeline in 2005. The HCA portion of the line between 9 Gate and the Zionsville Compressor Station was inspected with a wire-line survey tool in 2001.
- Line 200 experienced a failure near Glenarm, Illinois on April 27, 2007 and a failure near Houstonia, Missouri on August 25, 2008. Metallurgical analysis revealed that external corrosion was the cause of both failures. Additionally, external corrosion failures occurred in the Louisburg, Kansas line section on July 22, 1996 and November 9, 1999.

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, provide 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 the pipeline without corrective measures would be hazardous to life, property and the environment. Additionally, after considering the age of the pipe, circumstances surrounding this failure, the proximity of the pipeline to populated areas, public roadways and high consequence areas, the hazardous nature of the product the pipeline transports, the pressure required for transporting the material, the uncertainties as to the cause of the failure, and the ongoing investigation to determine the cause of the failure, I find that a failure to issue this Order expeditiously to require immediate corrective action would result in likely serious harm to life, property, and 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 Kansas City, Missouri or Washington, D.C. on a date that is mutually convenient to PHMSA and Respondent.

After receiving and analyzing additional data in the course of this investigation, PHMSA may identify other corrective measures that need to be taken. 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 Panhandle Eastern Pipeline Company, LP to immediately take the following corrective actions with respect to Line 200:

1. Prior to resuming operation of the section of Line 200 running from the Montezuma Compressor Station to 6 Gate, develop and submit a written re-start plan for prior approval of the Director, Central Region, OPS, Pipeline and Hazardous Materials Safety Administration, 901 Locust Street, Suite 462, Kansas City, MO 64106-2641.
2. The restart plan must provide for adequate patrolling of the pipeline segment during the restart process. The restart plan must specify a daylight restart and detail advance communications with local emergency response officials. Obtain written approval to resume operation of the line from the Regional Director prior to resuming operation.

3. After receiving approval from the Regional Director to restart the pipeline, maintain a twenty percent (20%) pressure reduction in the operating pressure of the Montezuma to Zionsville segment. The operating pressure is not to exceed eighty percent (80%) of the operating pressure in effect immediately prior to the failure. Specifically, the pressure in the affected segment is not to exceed 627 psig. 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 Regional Director pursuant to Item 11.
4. Within 30 days of receipt of this Order, complete mechanical and metallurgical testing and failure analysis of the failed pipe, including analysis of soil samples and any foreign materials. 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 from the failure site;
 - B. Utilize the mechanical and metallurgical testing protocols, including the testing laboratory approved by the Director, Central Region;
 - C. Prior to commencing the mechanical and metallurgical testing, provide the Regional 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 (including all media), whether draft or final, to the Regional Director at the same time as they are made available to Respondent.
5. Within 60 days following receipt of this order, submit an integrity verification and remedial work plan to the Director, Central Region, OPS for approval. The plan must provide for the verification of the integrity of the pipeline and must address all factors known or suspected in the May 5, 2009 failure, including, but not be limited to:
 - A. Integrate the results of the metallurgical analysis required by Item 4 with all relevant operating data and perform a root cause analysis of the May 5, 2009 failure;
 - B. Review the failure history of the entire Line 200 over the past 20 years and develop a written report containing all available information on the locations of failures, dates of failures, and cause of failures and describing your plans to confirm that the remainder of the line is not susceptible to more such failures. Make the report available to the Director, Central Region, OPS;
 - C. Within 180 days of receipt of this order, run a high-resolution MFL metal loss tool and a deformation tool on the Montezuma to Zionsville segment. ILI data must be evaluated using engineering repair methods and design factors based upon 49 C.F.R. §§ 192.713 and 192.111 using ASME/ANSI B31G or R-STRENG methods and for dents based upon 49 C.F.R. § 192.933(d)(3). All imperfections and anomalies equal

to or greater than 60 percent wall loss must be excavated, remediated and/or repaired when failure pressure ratios (FPR) for class location using ASME/ANSI B31G or R-STRENG methods are less than or equal to the following:

1. Class 1 pipe with FPR less than or equal to 1.39;
2. Class 2 pipe with FPR less than or equal to 1.67;
3. Class 3 pipe with FPR less than or equal to 2.0; and
4. Class changes per 49 C.F.R. § 192.611, per existing pipe design class and/or all anomalies with wall loss of 60 percent or greater remediated.

Make the results of these tool runs and evaluations available to the Director, Central Region, at the same time as they are received from the tool vendors;

- D. Evaluate the Montezuma to Zionsville segment for areas of damaged or disbanded coating, including but not limited to, consideration of direct current or alternating current voltage gradient surveys, close-interval surveys, current interrupted, and pipe-to-soil potential surveys;
 - E. If relevant, evaluate the Montezuma to Zionsville segment for anomalies associated with dents, gouges and grooves; and pipe deformation;
 - F. If relevant, evaluate the Montezuma to Zionsville segment for longitudinal cracks, mill defects, and stress corrosion cracking;
 - G. The evaluation methods used must be technologically appropriate for assessing the pipeline based on the type of failure that occurred on May 5, 2009 and should include consideration of pressure testing and/or additional in-line inspections supplemented by complimentary direct assessment as appropriate;
 - H. Include a detailed description of the inspection and repair criteria to be used in the field evaluation of any anomalies that are excavated. This is to include a description of how any defects are to be graded and the schedule for repairs or replacement;
 - I. Include provisions for continuing long-term periodic testing and integrity verification measures to ensure the ongoing safe operation of the affected segment considering the results of the analyses, inspections, and corrective measures undertaken pursuant to this Order;
 - J. Include a proposed schedule for completion of the actions required by paragraphs A-I of this Item.
6. The integrity verification and remedial work plan becomes incorporated into this Order and shall be revised as necessary to incorporate the results of actions undertaken pursuant to this Order and whenever necessary to incorporate new information obtained during the failure investigation and remedial activities. Submit any such plan revisions to the

Regional Director for prior approval. The Regional Director may approve plan elements incrementally.

7. Implement the work plan as it is approved by the Director, Central Region, OPS, including any revisions to the plan.
8. Submit quarterly reports to the Director, Central Region OPS that: (1) include all available data and results of the testing and evaluations required by this Order; and (2) describe the progress of the repairs or other remedial actions being undertaken. The first quarterly report for the period from May 5 through August 4, 2009 shall be due by August 31, 2009.
9. Maintain documentation of the costs associated with implementation of this Corrective Action Order. Include in each monthly report submitted, the to-date total costs associated with: (1) preparation and revision of procedures, studies and analyses; (2) physical changes to pipeline infrastructure, including repairs, replacements and other modifications; and (3) environmental remediation, if applicable.
10. With respect to each submission that under this Order requires the approval of the Regional Director, the Director may: (a) approve, in whole or part, the submission; (b) approve the submission on specified conditions; (c) modify the submission to cure any deficiencies; (d) disapprove in whole or in part, the submission, directing that Respondent modify the submission, or (e) any combination of the above. In the event of approval, approval upon conditions, or modification by the Director, Respondent shall proceed to take all action required by the submission as approved or modified by the Director. If the Director disapproves all or any portion of the submission, Respondent shall correct all deficiencies within the time specified by the Director, and resubmit it for approval.
11. The Regional Director may allow the removal or modification of the pressure restriction set forth in Item 3 upon a written request from Respondent demonstrating that the hazard has been abated and that restoring the pipeline to its pre-failure operating 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 pipeline.

The Director, Central Region, OPS may grant an extension of time for compliance with any of the terms of this Order upon a written request timely submitted demonstrating good cause for an extension.

The actions required by this Corrective Action Order are in addition to and do not waive any requirements that apply to Respondent's pipeline system under 49 C.F.R. Part 192, under any other order issued to Respondent under authority of 49 U.S.C. § 60101 et seq., or under any other provision of Federal or State law.

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 and in referral to the Attorney General for appropriate relief in United States District Court pursuant to 49 U.S.C. § 60120.

The terms and conditions of this Corrective Action Order are effective upon receipt.

William H Gorte
for

Jeffrey D. Wiese
Associate Administrator
for Pipeline Safety

MAY 13 2009

Date Issued