



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

JAN 30 2004

Mr. Barry Pearl, CEO
Texas Eastern Products Pipeline Company
2929 Allen Parkway
Houston, TX 77252-2521

Re: CPF No.- 1-2004-5002-H

Dear Mr. Pearl:

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 with respect to your 8-inch propane P-41 pipeline that extends from Watkins Glen, NY to Selkirk, NY. The Order includes a pressure reduction on the line segment from Watkins Glen, NY in Schuyler County, to Selkirk, NY the in Albany County. Service is being made by certified mail and facsimile. Your receipt of this 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,

James Reynolds
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, D.C. 20590**

In the Matter of

Texas Eastern Products Pipeline Co.,

Respondent.

CPF No.- 1-2004-5002-H

CORRECTIVE ACTION ORDER

Purpose and Background

This Corrective Action Order is being issued, under authority of 49 U.S.C. § 60112, to require Texas Eastern Products Pipeline Company (Respondent) to take the necessary corrective action to protect the public and property from potential hazards associated with Respondent's P-41 pipeline segment that extends approximately 165 miles from Watkins Glen, NY in Schuyler County, to Selkirk, NY in Albany County.

On, January 25, 2004, Respondent reported a rupture approximately 2.5 miles from Davenport, NY on its 8-inch P-41 pipeline. The cause of the failure is yet undetermined. Pursuant to 49 U.S.C. § 60117, the New York Public Service Commission (PSC), acting as OPS's interstate agent, responded to the incident. The Eastern Region, OPS, and the PSC initiated an investigation of this failure.

Preliminary Findings

- On January 25, 2004, at approximately 7:11 p.m. EST, Respondent's P-41 pipeline ruptured, resulting in the release of propane gas which ignited in a rural area about 2.5 miles east of Davenport, NY.
- The rupture and fire resulted in the evacuation of 6-10 homes within a 1/2-mile radius and the destruction of a double-wide trailer home. Vegetation and trees within a 200-250 foot radius were burned or scorched.
- No injuries or fatalities occurred.

- On January 25, 2004, Respondent's personnel at the Watkins Glen Control Center noticed an unaccountable drop in pressure in the pipeline at 7:11 p.m., and a shutdown by remote control was complete at about 7:25 p.m. The shutdown included closing all motor-operated line valves (MOV) across the segment. The MOV closures contained the leak site to 19 miles of pipe.
- Respondent's personnel further isolated the failure site by closing additional manual valves reducing the leak site to 17 miles of pipe. The nearest upstream valve is 10 miles from the failure site and the nearest downstream valve is 7 miles from the failure site.
- The 17 miles of isolated line segment was filled with approximately 5,000 barrels of liquefied petroleum gas. The Respondent conducted a "controlled flare" that burned for 2-3 days to deplete the propane gas and to prevent a vapor cloud.
- A 25 to 40 feet section of pipe and associated valve setting have been replaced.
- Portions of the 17 mile affected pipeline segment are routed near small communities and crosses numerous state and local highways. The affected segment is approximately 3 miles from State Route RT-23 and about 10 miles from Interstate 88.
- Respondent's P-41 pipeline segment extends approximately 165 miles from Watkins Glen, NY in Schuyler County, to Selkirk, NY in Albany County.
- The failure site is at Mile Post 112.63 (MP 112.63). The affected segment lies between the Watkins Glen Terminal Station at MP 0 and the Selkirk Terminal Station at MP 164.76.
- The preliminary investigation indicates that the rupture is on the pipe body and the weldolet connecting a 2-inch blowdown valve to the 8-inch pipe. The failure is contained in about 2-3 feet of pipe. A two-inch manually operated blowdown valve was ejected by the explosion. The cause of the incident has not yet been determined.
- The 2-3 feet of pipe containing the failure and the 2-inch service valve will be sent, under controlled custody protocol, to Keifner & Associates for a detailed analysis.
- The affected segment was installed in 1962 and is constructed of 8 5/8-inch x 0.203-inch w.t., Grade X-42, ERW pipe. The pipe manufacturer is Bethlehem Steel. The protective coating is coal tar.
- The last reported leak on this pipeline was March 13, 1990. A leak occurred causing a drifting vapor cloud that ignited near Blenheim, NY, resulting in two fatalities and five injuries. The current failure site is approximately 16 miles west of Blenheim. The cause of the Blenheim failure was attributed to maintenance activities and "hard spots" in the pipe.

- The pipeline was hydrostatically tested in 1990, after completion of repairs for the Blenheim accident. There were two failures during the hydrotest, an ERW seam failure and a mid-wall lamination failure that was not associated with a longitudinal seam. The final test pressure was sufficient to attain a maximum operating pressure of 1,422 psig.
- Since 1990, Respondent has been operating its P-41 pipeline segment at a self-imposed operating pressure limit of 1065 psig at Watkins Glen discharge. At the time of the rupture, the calculated pressure at the failure site was 588 psig.
- A standard inspection was conducted by the PSC and the Office of Pipeline Safety, Eastern Region, that included P-41 in 2003.
- During the fourth quarter of 2003, the Office of Pipeline Safety, Eastern Region, and the PSC conducted a comprehensive two-week Integrity Management (IM) inspection of Respondent's entire pipeline system.
- As a part of its IM plan, Respondent ran caliper and high-resolution MFL tools during the fourth quarter of 2003. The ILI tools did not reveal any potential integrity problems within the vicinity where the rupture occurred. There is one 30% metal loss anomaly within one mile of the failure site but the anomaly does not influence the operating pressure of the pipeline.
- Respondent's pipeline transports propane, which is a highly volatile liquid. Highly volatile liquids form a vapor cloud when released into the atmosphere and have vapor pressures exceeding 40 psi at 100°F. The vapor clouds generated by propane have a tendency to stay close to the ground and follow the terrain accumulating in the low areas, such as the ditches along a highway or railroad. The vapor cloud will slowly dissipate over time.
- Respondent's pipeline system extends for 4, 600 miles and passes through thirteen states from the upper Texas Gulf Coast to the Midwest and Northeast regions of the United States. Respondent is one of the largest carrier pipelines of refined products and liquid petroleum gas in the country and is a predominant supplier of propane in upstate New York.

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 this pipeline without corrective measures would be hazardous to life and property. Additionally, after considering the circumstances surrounding the rupture which cause is yet undetermined, the proximity of the pipeline to populated areas, the line's proximity to public highways, the highly volatile liquids the pipeline transports, the pressure required for transporting the material, and the uncertainties as to the cause of the failure, I find that a failure to issue expeditiously this Order, requiring immediate corrective action, would result in likely serious harm to life and property.

Accordingly, this Corrective Action Order mandating needed 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, TEPPCO Pipeline 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 Washington, D.C. 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 longer term measures that need to be taken. TEPPCO will be notified of any additional measures required and amendment of this Order will be considered. To the extent consistent with safety, TEPPCO 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 TEPPCO to immediately take the following corrective actions with respect to its P-41 pipeline segment extending from Watkins Glen, NY in Schuyler County, to Selkirk, NY the in Albany County:

- 1) Maintain a 20 percent (20%) pressure reduction in the operating pressure on the entire P-41 line segment, from Watkins Glen, NY to Selkirk, NY. Specifically, the pressure at the failure site may not exceed 380 psig. This pressure restriction shall remain in place until written approval to increase the pressure or return the pipeline to full service is obtained from the Director, Eastern Region, OPS.

- 2) **Conduct a detailed metallurgical analysis of the pipe and the valve that failed on January 25, 2004 to determine the cause and contributing factors for the failure. Collect and handle all evidence in accordance with the controlled custody protocol described below. After receiving and analyzing the metallurgical report and soil analysis report, the Director, Eastern Region, OPS may require Respondent to develop other longer term measures.**
 - A) **The metallurgical testing laboratory and the testing protocol to be used must be pre-approved by the Director, Eastern Region, OPS.**
 - B) **All evidence, including soil samples and any foreign materials must be gathered, catalogued, tagged and sealed in the presence of OPS or an OPS Representative.**
 - C) **Prior to commencing the testing, provide the Director, Eastern Region, OPS with the scheduled date, time, and location of the testing to allow OPS or an OPS Representative to be present to witness the testing.**
 - D) **Perform an analysis of the soil and foreign material found at the site to determine if deleterious material is present that contributed to the January 25, 2004 failure.**
 - E) **Ensure that the laboratory distributes all resulting reports of the failure analysis, draft and final, to OPS, Respondent, and any other recipients simultaneously.**
- 3) **Make all 2003 in-line inspection data for P-41 line segment available for review by an OPS consultant.**
- 4) **Conduct a nondestructive examination of all vertical blowdown valves associated with block valves and provide written evaluations of each area where the weldolet meets the 8-inch pipe on the P-41 line segment from Watkins Glen to Selkirk, NY.**
- 5) **Within thirty (30) days of receipt of this Order, develop and submit a written plan to remediate any defects and anomalies and to address all known or suspected factors identified by the evaluations required in Items 2 through 4 above and submit monthly status reports to the Director, Eastern Region, OPS describing the remedial actions to be taken to prevent future failures of this nature.**
- 6) **Respondent must request approval from the Director, Eastern Region to remove the pressure restriction set forth in this Corrective Action Order. Respondent must submit information that demonstrates the hazard has been abated and that restoring the P-41 segment to its pre-failure operating pressure is justified based on an analysis showing that the pressure increase is safe considering all known defects, anomalies and operating parameters of the pipeline. After written approval from Director, Eastern Region, TEPPCO Pipeline may resume operation at the pre-failure operating pressure.**

- 7) In order to support a request under Item 6 for approval of a return to pre-failure operating pressure, Respondent must submit a written plan to verify the integrity of the P-41 line segment from Watkins Glen, NY to Selkirk, NY. This plan must include any evaluations, testing, repairs, or other remedial action necessary to verify the integrity of P-41 as well as a schedule for completion of these actions. The Director, Eastern Region, may approve the plan and its completion incrementally.
- 8) The Director, Eastern Region, 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.
- 9) Respondent may appeal any decision of the Director, Eastern Region to the Associate Administrator for Pipeline Safety. Decisions of the Associate Administrator shall be final.

The actions required by this Order are in addition to and do not waive any requirements that apply to the affected segment under 49 CFR Part 195, including the integrity management program regulations.

The procedures for the issuance of this Order are described in Part 190, Title 49, Code of Federal Regulations, § 190.233, a copy of which is enclosed, is made part of this Order and describes the Respondents' procedural rights relative to this Order.

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

Date Issued

Date Issued