



U.S. Department
of Transportation
**Research and
Special Programs
Administration**

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

MAR - 2 2004

Mr. Jim Lamanna
President
BP Pipelines (North America) Inc.
28100 Torch Parkway
Warrenville, IL 60555

Re: CPF No. 3-2004-5005H

Dear Mr. Lamanna:

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 Bromley-Cincinnati 6-inch 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,

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, DC 20590**

In the Matter of)

BP Pipelines (North America) Inc.,)

Respondent.)

CPF No. 3-2004-5005H

CORRECTIVE ACTION ORDER

Purpose and Background

This Corrective Action Order is being issued, under authority of 49 U.S.C. § 60112, to require BP Pipelines (North America) Inc. (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 Bromley-Cincinnati 6-inch hazardous liquid pipeline.

On or about February 25, 2004, a failure occurred on Respondent's Bromley-Cincinnati line in Hamilton County, OH resulting in the release of diesel fuel. The cause of the failure has not yet been determined. Pursuant to 49 U.S.C. § 60117, the Central Region, Office of Pipeline Safety (OPS) initiated an investigation of the incident.

Preliminary Findings

- On or about February 25, 2004, Respondent's Bromley-Cincinnati line experienced a failure in Hamilton County, OH resulting in the release of an unknown quantity of diesel fuel in a residential area within the city limits of Cincinnati. At approximately 11:00 A.M. EST, local residents began to report the odor of fuel and Respondent's personnel observed the presence of diesel fuel in sewer laterals shortly thereafter.
- No fires, injuries, or fatalities were reported in connection with the incident.
- Respondent's Bromley-Cincinnati line transports refined petroleum products including diesel fuel and unleaded gasoline from the Bromley Station in Northern Kentucky across the Ohio River to the Cincinnati Terminal in Southern Ohio. Its total length is approximately 22.2 miles. Portions of the pipeline are routed through heavily populated areas and cross highways and waterways.

- Following the failure, Respondent mitigated the release by shutting down the pumps at the Bromley Station at approximately 11:36 A.M. EST on February 25, 2004. Respondent began the process of tracing the origin of the leak and on February 29, 2004, identified the leak site at Mile Post (MP) 4.5, approximately 2.5 miles from the Ohio River.
- The cause of the failure has not yet been determined. Respondent's personnel conducted a preliminary visual examination of the failure site and reported that external corrosion may be present in portions of the pipe wall. Respondent plans to transport the section of pipe containing the leak origin to a metallurgist for detailed analysis.
- The Bromley-Cincinnati line was installed in 1938 and is constructed of 6-inch nominal diameter, 0.300-inch wall thickness, Grade B, electric resistance welded (ERW) pipe. It has a coal tar coating and is cathodically protected by impressed current.
- The maximum operating pressure (MOP) of the Bromley-Cincinnati line is 1200 psig. At the time of the failure, the pressure at the Bromley Station outlet point was 1198 psig and Respondent estimates that the pressure at the failure site was approximately 799 psig.
- The Bromley-Cincinnati line was hydrostatically tested in 1997 to a pressure of 1586 psig. In 2002, internal inspections were performed on the pipeline with a magnetic flux leakage in-line inspection tool and a geometry tool. In 2003, Respondent made 22 dent repairs to the line based on information obtained from the geometry tool survey. Respondent also excavated certain sites to verify and evaluate data obtained from the magnetic flux leakage tool survey indicating that the maximum metal loss anomalies are in the 30-50% range. Respondent's engineers are currently in the process of comparing the verification dig results with the magnetic flux leakage survey data.
- OPS issued Alert Notices on January 28, 1988 and March 8, 1989 informing pipeline operators that low-frequency ERW pipe, such as the pipe used to construct the Bromley-Cincinnati line, is subject to longitudinal weld seam failures caused by the presence of manufacturing defects in the ERW seams that can grow over time. Seam corrosion and cyclic fatigue have been found to have contributed to the growth of these defects and in some cases, operational failures have occurred many months or years after successful hydrostatic testing was conducted.

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 Bromley-Cincinnati 6-inch 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 populated and environmentally sensitive areas, the combustible nature of the products the pipeline transports, the pressure required for transporting the material, and the ongoing investigation to determine 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 Kansas City, MO 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 BP Pipelines (North America) Inc. to immediately take the following corrective actions with respect to its Bromley-Cincinnati 6-inch hazardous liquid pipeline:

1. Prior to resuming operation of the Bromley-Cincinnati line, submit written start-up procedures subject to the approval of the Director, Central Region, OPS. The procedures must provide for sufficient pressure monitoring, leak patrolling, and surveillance to ensure that no leaks are present when operation of the line is resumed.

2. Once the pipeline is restarted in accordance with Item 1, the operating pressure on the line is not to exceed 80 percent (80%) of the actual operating pressure in effect just prior to the February 25, 2004 failure. Specifically, the pressure is not to exceed 958 psig at the Bromley Station discharge point and the pressure at the leak site is not to exceed 80% of the pressure at the leak site at the time of the 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, Central Region, OPS. If the results of the re-evaluation of the metal loss data from the 2002 in-line inspections required by Item 4 or any other action undertaken pursuant to this Order dictate a reduction in the allowable operating pressure below that imposed by this Order, Respondent must further reduce the operating pressure accordingly.
3. Conduct mechanical and metallurgical testing of the failed pipe section as follows:
 - (A) Collect, catalog, and seal the pipe and all other evidence, including soil samples and any foreign materials present, in the presence of OPS or an OPS representative and document the chain-of-custody;
 - (B) Obtain prior approval of the metallurgical testing laboratory, as well as the testing protocol to be used, from the Director, Central Region, OPS;
 - (C) Prior to commencing the metallurgical testing, provide the Director, Central Region, OPS with the scheduled date, time, and location of the testing to allow an OPS representative to witness it;
 - (D) Ensure that the laboratory distributes all resulting metallurgical reports, whether draft or final, to OPS at the same time as they are made available to Respondent.
4. Re-evaluate the data from the magnetic flux leakage in-line inspection tool and the geometry tool runs performed in 2002, 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 2002 in-line inspection results available for review by OPS or its representative.
5. Within 30 days of receipt of this Order, develop and submit a written plan with corrective measures for prior approval by the Director, Central Region, OPS. The plan must fully address all known or suspected factors that caused or contributed to the February 25, 2004 release and must include:
 - (A) The integration of the information developed from the actions required by Items 3 and 4, along with any relevant information from previous failure investigations, leak history, repair records, corrosion control records, in-line inspections, hydrostatic testing, changes in pressure cycling, and other relevant operating data for the purpose of performing a comprehensive failure analysis of all factors that caused or contributed to the February 25, 2004 release;

(B) The performance of appropriate field testing, inspections, and evaluations, including but not limited to a close-interval electrical survey, to determine whether and to what extent the condition(s) associated with the failure, or other integrity threatening trends, are present along the remainder of the pipeline. Include a description of the tools and methods to be used in the field evaluation and the criteria to be used for the prioritization of any integrity threats that are identified. Make the results of any field evaluations available to OPS or its representative;

(C) The performance of appropriate repairs or other corrective measures fully remediating the integrity threatening condition(s) associated with the failure everywhere along the pipeline where such conditions are identified by the evaluation process. Include a description of the repair method(s) to be used in undertaking any repairs or other remedial actions;

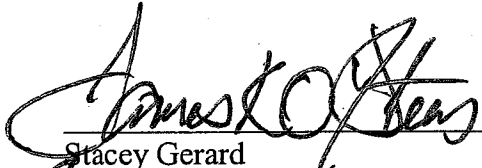
(D) A proposed schedule for completion of the testing and repairs.

6. Submit the plan to: Director, Central Region, Office of Pipeline Safety, 901 Locust Street, Suite 462, Kansas City, MO 64106-2641. The plan must be revised as necessary to incorporate new information obtained during the failure investigation and remedial activities undertaken pursuant to this Order. Submit any such plan revisions to the Director for prior approval. The Director may approve plan elements incrementally.
7. Implement the plan as it is approved, including any revisions to the plan.
8. The Director, Central Region, OPS may allow the removal or modification of the pressure restriction set forth in Item 2 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.
9. The Director, Central 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

MAR - 2 2004

Date Issued