



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

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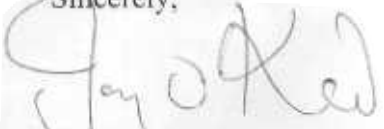
Mr. R.E. Sands
Vice President and Chief Operations Officer
Explorer Pipeline Company
P.O. Box 2650
Tulsa, OK 74101-2650

Re: CPF No. 4-2004-5028H

Dear Mr. Sands:

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 the Holdenville, OK to Okmulgee, OK segment of your Explorer Pipeline System. 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

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)
)

Explorer Pipeline Company,)

Respondent.)

CPF No. 4-2004-5028H

CORRECTIVE ACTION ORDER

Purpose and Background

This Corrective Action Order is being issued, under authority of 49 U.S.C. § 60112, to require Explorer Pipeline Company (Respondent) to take the necessary corrective action to protect the public, property, and the environment from potential hazards associated with a failure involving the Holdenville, OK to Okmulgee, OK segment (“the affected segment”) of Respondent’s Explorer Pipeline System that runs from Port Arthur, TX to Hammond, IN.

On September 28, 2004, a failure occurred on the affected segment in Hughes County, OK 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 Southwest Region, Office of Pipeline Safety (OPS) initiated an investigation of the accident.

Preliminary Findings

- At approximately 11:56 a.m. CDT on September 28, 2004, Respondent’s automated control system detected a sudden pressure drop on the affected segment. At approximately 11:57 a.m. CDT, Respondent shut down the line.
- At approximately 2:03 p.m. CDT, Respondent identified a failure on the affected segment at Mile Post (MP) 459, which resulted in the release of an estimated 1500 barrels of high-sulphur diesel fuel.
- The failure occurred approximately one mile northwest of the intersection of Highway 270 and Highway 75. The nearest town, Holdenville, OK, is located approximately five miles from the failure site.

- Respondent reported the accident to the National Response Center at 2:18 P.M. CDT. No fires, injuries, or fatalities were reported in connection with the accident.
- Respondent's Explorer Pipeline System is approximately 1400 miles long and transports refined petroleum products including diesel fuel, aviation fuel, and unleaded gasoline from the Gulf Coast to the Midwest. The affected segment extends from the Holdenville Pump Station (MP 457) in a northeasterly direction to the Okmulgee Pump Station (MP 501). Portions of the affected segment cross various highways and waterways. The northern portion of the affected segment is routed through a high consequence area.
- Following the failure, the pipeline system's automatic line controls shut down the Holdenville and Okmulgee pumps, and Respondent isolated the failed pipe section by closing the nearest upstream and downstream mainline block valves at MP 456.73 and MP 466.83, respectively.
- 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 a rupture measuring approximately 5-ft 7-inches long and approximately 9-inches wide at its widest point was identified on the bottom of the pipe between the 6 o'clock and 7 o'clock position. Respondent intends to remove a 26-ft long section of pipe containing the failure origin and transport it to a metallurgist for detailed analysis.
- The affected segment is approximately 44 miles long and was installed in 1970. It is constructed of 28-inch nominal diameter, 0.312-inch wall thickness, double-submerged arc welded (DSAW) pipe manufactured by STELCO. It has an asphalt enamel coating and is cathodically protected by impressed current.
- The maximum operating pressure (MOP) of the affected segment is 834 pounds per square inch gauge (psig). At the time of the failure, the pressure at the Holdenville station outlet point was 778 psig and Respondent estimates that the pressure at the failure site was approximately 745.5 psig.
- The affected segment was hydrostatically tested on February 23, 1971.
- In 1996 and 2003, internal inspections were performed on the pipeline with a geometry tool. In 1997 and 2002, internal inspections were performed using a metal loss detection tool. In 2000, an internal inspection was performed using an ultrasonic crack detection tool. In 2001 and 2002, internal inspections were performed using an experimental transverse flux (TFI) tool. OPS has not yet reviewed the results of these internal inspections.

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 likely result in 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 affected segment 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 highways and waterways, the combustible nature of the products the pipeline transports, the pressure required for transporting the material, the lack of an obvious cause for the failure despite the multiple internal inspections by different tools, and that the pressure at failure was below the segment's MOP, 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 Houston, TX 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 Explorer Pipeline Company to immediately take the following corrective actions with respect to the Holdenville to Okmulgee segment of Respondent's Explorer Pipeline System:

1. Prior to resuming operation of the pipeline, submit written start-up procedures subject to the approval of the Director, Southwest Region, OPS. The procedures must provide for an incremental start-up and must include 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 affected segment is not to exceed 80 percent (80%) of the actual operating pressure in effect just prior to the September 28, 2004 failure. Specifically, the pressure is not to exceed 596 psig at the failure site. 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, Southwest Region, OPS. If the results of the re-evaluation of the data from the 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 metallurgical testing of the failed pipe sections as follows:
 - (A) Collect, catalog, and seal the pipe and all other evidence in the presence of OPS or an OPS representative and document the chain-of-custody;
 - (B) Obtain prior approval of the testing protocol, from the Director, Southwest Region, OPS;
 - (C) Prior to commencing the metallurgical testing, provide the Director, Southwest Region, OPS with the scheduled date, time, and location of the testing to allow an OPS representative to witness it; and
 - (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. Within 30 days following receipt of this Order, re-evaluate the data from the 1996 and 2003 geometry tool runs, the 1997 and 2002 metal loss tool runs, the 2000 ultrasonic crack detection tool run, and the 2001 and 2002 experimental TFI tool runs, including information obtained from any resulting excavations. Conduct the re-evaluation as follows:
 - (A) The re-evaluation must focus on the data from the tool(s) most suitable for detecting the condition that was the precursor of the failure based on the findings of the metallurgical analysis;
 - (B) Determine whether the internal inspection data indicates any anomalies in the vicinity of the failure site that could have contributed to the failure;
 - (C) If any anomalies at the failure site are indicated by the data, describe the nature and magnitude of the anomalies and report why they were not repaired;

- (D) Determine whether any other anomalies of a similar magnitude or nature are present elsewhere on any portion of the Explorer Pipeline System constructed with similar methods and material as the affected segment;
 - (E) Make the in-line inspection data available to OPS or its representative; and
 - (F) Within 45 days of receipt of this Order, submit the results of the re-evaluation to the Director, Southwest Region, OPS.
5. Within 60 days of receipt of this Order, develop and submit a written plan with corrective measures for prior approval by the Director, Southwest Region, OPS. The plan must fully address all known or suspected factors that caused or contributed to the September 28, 2004 failure 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 analysis of all factors that caused or contributed to the failure;
 - (B) The performance of appropriate field testing, inspections, and evaluations, including consideration of additional internal inspections, 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 affected segment or elsewhere on any portion of the Explorer Pipeline System constructed with similar methods and material as the affected segment. Include a description of the tools and methods to be used in any field evaluations 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; and
 - (D) A proposed schedule for completion of the testing and repairs.
6. Submit the plan to: Director, Southwest Region, Office of Pipeline Safety, 8701 South Gessner Street, Suite 1110, Houston, TX 77074. 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, Southwest 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, Southwest 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.

William H. Gerard
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Stacey Gerard
Associate Administrator
for Pipeline Safety

OCT - 1 2004

Date Issued