



U.S. Department
of Transportation

Central Region,
Pipeline Safety

901 Locust, Room 462
Kansas City, MO 64106-2641

Research and
Special Programs
Administration

NOTICE OF PROPOSED CORRECTIVE ACTION ORDER

VIA CERTIFIED MAIL (RETURN RECEIPT REQUESTED)

June 22, 2001

Mr. Steve Springer
Senior Vice President & General Manager
Williams Energy Services
1800 South Baltimore
Tulsa, OK 74119

Re: CPF No. 3-2001-5015H

Dear Mr. Springer:

On April 14, 2001, Williams' Alexandria-Grand Forks #1-6" Line failed, along the Fargo-Grand Forks segment, 1.6 miles north of Harwood, North Dakota resulting in the release of approximately 40 barrels of #2 fuel oil. Based upon that failure, this Notice of Proposed Corrective Action Order is being issued, under authority of 49 U.S.C. § 60112, to propose to require Williams Energy Services (Williams) to take the necessary corrective action to protect the public and environment from potential hazards associated with its 6⁵/₈-inch diameter pipeline, which extends from Alexandria, Minnesota to Grand Forks, North Dakota (hereinafter referred to as the Alexandria-Grand Forks #1-6" Line).

Pursuant to 49 U.S.C. § 60117, the Central Region, OPS initiated an investigation of this failure and believes the facts to be as follows:

1. At approximately 4:40 p.m. CDT, on April 14, 2001, Williams' Alexandria-Grand Forks #1-6" Line failed, along the Fargo-Grand Forks segment, resulting in the release of approximately 40 barrels of #2 fuel oil. The leak at Mile Post 113+30 (MP 113+30), near Harwood, ND, occurred in the Brooktree Park Addition subdivision.
2. No fatalities or injuries occurred. The failure is approximately 150 feet from the nearest home. The failure site is about 500 feet east of North Dakota State Highway 81 and about 150 feet west of the Sheyenne River.

3. The Alexandria-Grand Forks #1-6" Line is routed through predominantly rural areas of Minnesota and North Dakota, passing within 1-2 miles of numerous small communities along the route as well as crossing numerous public roadways, rivers, and streams. The pipeline also passes through residential areas of Fargo and Grand Forks, ND and crosses the Red River.
4. The Alexandria-Grand Forks #1-6" Line originates at Alexandria, MN running northwest into Fargo, ND where it shifts in a northerly direction passing through the Brooktree Park Addition subdivision to Grand Forks, ND.
5. The pipeline is owned by Williams Pipe Line Company and operated by Williams Energy Services.
6. The Alexandria-Grand Forks #1-6" Line transports gasoline, diesel, fuel oil and jet fuel.
7. The Alexandria-Grand Forks #1-6" Line was installed in 1946 and is constructed of 6⁵/₈-inch x 0.188-inch w.t., Grade B, low frequency, ERW(electrical-resistance welded) pipe manufactured by Republic Steel. The protective coating is coal tar.
8. The April 14, 2001 failure appears to be identical to the Alexandria-Grand Forks #1-6" Line failure that occurred on June 12, 1987, in the Brooktree Park subdivision along the Fargo-Grand Forks segment.
9. On June 12, 1987, a failure occurred at MP 113 on the Alexandria-Grand Forks #1-6" Line resulting in the release of 200 to 300 gallons of #2 fuel oil. The failure was attributed to a defect left in the longitudinal seam resulting from the low frequency electric-resistance welding (ERW) process used in the manufacturing of the pipe. This failure was located about 300 feet south of the April 14, 2001 failure.
10. OPS issued Hazardous Facility Order (CPF No. 3548-H) on July 7, 1987 requiring Williams to hydrostatically pressure test the Alexandria-Grand Forks #1-6" Line. This test was completed in October 1987. Five (5) failures occurred during the testing of the line segment from Alexandria, MN to Fargo, ND. Metallurgical analysis of the failures indicated the failures were the result of defects left in the longitudinal seam by the low frequency electric-resistance welding process. No test failures occurred in the line segment from Fargo, ND to Grand Forks, ND.
11. CPF No. 3548-H also required Williams to pressure test all of the low-frequency ERW pipe in all of the pipelines they operated at that time.
12. On June 4, 1993, a failure occurred in the Alexandria-Grand Forks #1-6" Line about 2 miles south of the April 14, 2001 failure, resulting in the release of approximately 210 gallons of #2 fuel oil. Metallurgical analysis of the 1993 failure indicated the failure was the result of a defect left in the longitudinal seam by the low frequency electric-resistance welding process.

13. OPS identified low-frequency ERW pipe to be subject to failures in the longitudinal seams because of manufacturing defects. OPS issued Alert Notices on January 28, 1988, and again on March 8, 1989, to inform pipeline operators of the problem. Failures of the longitudinal seam of the pipe had been caused by the growth over time of manufacturing defects in the ERW seams. Selective corrosion of the seam and cyclic fatigue contribute to the growth of these defects. Although OPS review has also shown that in many cases pipelines that had been hydrostatically tested had operated safely since they were tested, there are also cases in which selective corrosion or cyclic fatigue have led to operating failures many months or years after the test.
14. The 1987, 1993, and April 14, 2001 failures stem from manufacturing defects in the ERW longitudinal seam, which were aggravated by cyclic operation of the line.
15. At the time of the incident, discharge pressure at the Fargo Pump Station (MP 104+34) was 920 psig and suction pressure at the Hillsboro Pump Station (MP 132+42) was 608 psig. Pressure at the failure site (MP 113+30) was 833 psig. The maximum operating pressure of this line segment is 950 psig. The failure location is approximately 74 miles south of Grand Forks and 9 miles downstream of the Fargo pump station (MP104+34).
16. The preliminary investigation on April 14, 2001 revealed a small leak in the longitudinal seam. The cause of the leak and the length of the fracture could not be determined by examination at the site. The failed pipe segment has been sent to a metallurgical laboratory for further analysis. The investigation is ongoing.
17. No in-line inspection tool has been run on the Alexandria-Grand Forks #1-6" Line, as the diameter of the line limits the use of in-line inspection tools to those that are not capable of detecting long seam defects, such as cracks.
18. The segment of pipe that failed, between Fargo and Grand Forks, ND, was last pressure tested in 1987.
19. Following the April 14, 2001 accident, Williams' personnel isolated the line by closing the upstream mainline valve at MP 112 and the downstream valve at MP 116. The upstream valve is located approximately 1.57 miles from the failure site. The downstream valve is located approximately 2.43 miles from the failure site.
20. Respondent restarted the Alexandria-Grand Forks #1-6" Line on April 17, 2001 with a 20% pressure reduction from Alexandria, MN to Grand Forks, ND. The failure site is approximately 19.23 miles south of the Hillsboro Pump Station (MP132+42) and approximately 9 miles north of the Fargo Pump Station (MP104+34).

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.

After evaluating the foregoing preliminary findings of fact, I propose that the continued operation of this pipeline without corrective measures would be hazardous to life, property and the environment.

Within 10 days of receipt of this Proposed Order, Williams may request a hearing, to be held as soon as practicable, by notifying the Regional Director, Central Region, OPS 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 OPS and Respondent.

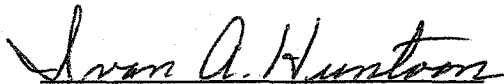
Proposed Corrective Action

Pursuant to 49 U.S.C. § 60112, the Regional Director, Central Region, OPS, hereby proposes to require Williams Energy Service to take the following corrective actions with respect to the Alexandria-Grand Forks #1-6" Line:

1. Maintain a 20 percent (20%) reduction in the operating pressure along the Alexandria-Grand Forks #1-6" Line, which is not to exceed 80% of the operating pressure in effect at each pump station just prior to the failure. Specifically, the pressure is not to exceed 667 psig at the failure site.
2. Conduct a detailed metallurgical analysis of the pipe that failed on April 14, 2001 to determine the cause and contributing factors for the failure. A copy of the report is to be submitted to the Regional Director, Central Region, OPS, within one week of Williams receiving it.
3. Submit a written plan, subject to approval by the Regional Director, Central Region, OPS, to verify the integrity of the line segment from Fargo, ND to Grand Forks, ND. The plan must provide integrity testing that addresses all known or suspected factors in the April 14, 2001 failure, including, but not limited to:
 - A. Hydrostatically pressure testing the line, in accordance with the requirements set forth in §195.304, and/or other mitigative measures required to address the cause and contributing factors to the April 14, 2001 pipeline failure. The pressure testing must include a thirty (30) minute burst test. The burst test pressure shall be to a minimum of 139% of the maximum operating pressure at the high elevation in each test section.
 - B. Conducting a detailed metallurgical analysis of each seam failure that occurs during the hydrostatic pressure testing of the line. The cause of other types of failures must also be determined.

- C. A schedule and means for providing the results and data for testing programs performed to the Central Region, including a project status report to be filed on a monthly basis.
4. Each element of the plan must be approved by the Regional Director, who may provide approvals incrementally. Implement the plan as approved.
 5. Respondent may request approval from the Regional Director, to increase its operating pressure above the interim maximum operating pressure under item 1, based on a showing that the hazard has been abated or that a higher 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. The Regional Director's determination will be based on cause of failure and provision of evidence that mitigative actions taken by the operator provide for the safe operation of the pipeline. Appeals to determinations of the Regional Director in this regard will be subject to the decision of the Associate Administrator for Pipeline Safety.
 6. Submit your integrity management plan, as required by §195.452, ensuring the operational reliability of the Alexandria-Grand #1-6" Line including determination of periodic pressure testing intervals and periodic assessment to OPS for review and approval by December 31, 2001.
 7. The Central Regional Director 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 procedures for the issuance of this Notice are described in Part 190, Title 49, Code of Federal Regulations, § 190.233, a copy of which is enclosed, is made part of this Notice and describes the Respondents' procedural rights relative to this Notice of Proposed Corrective Action Order.



Ivan A. Huntoon
Regional Director, Central Region
Office of Pipeline Safety

PROCEDURES FOR CORRECTIVE ACTION ORDERS

Sec. 190.233 Hazardous facility orders.

(a) Except as provided by paragraph (b) of this section, if the Associate Administrator, OPS finds, after reasonable notice and opportunity for hearing in accord with paragraph (c) of this section, and Sec. 190.211(a), a particular pipeline facility to be hazardous to life or property, the Associate Administrator, OPS shall issue an order pursuant to this section requiring the owner or operator of the facility to take corrective action. Corrective action may include suspended or restricted use of the facility, physical inspection, testing, repair, replacement, or other action, as appropriate.

(b) The Associate Administrator, OPS may waive the requirement for notice and hearing under paragraph (a) of this section before issuing an order pursuant to this section when the Associate Administrator, OPS determines that the failure to do so would result in [[Page 16]] the likelihood of serious harm to life or property. However, the Associate Administrator, OPS shall include in the order an opportunity for hearing as soon as practicable after issuance of the order. The provisions of paragraph (c)(2) of this section apply to an owner or operator's decision to exercise such an opportunity for hearing. The purpose of such a post-order hearing is for the Associate Administrator, OPS to determine whether the order should remain in effect or be rescinded or suspended in accord with paragraph (g) of this section.

(c) Notice and hearing: (1) Written notice that OPS intends to issue an order under this section shall be served in accordance with Sec. 190.5, upon the owner or operator of an alleged hazardous facility. The notice shall allege the existence of a hazardous facility, stating the facts and circumstances supporting the issuance of a "hazardous facility order", and providing the owner or operator an opportunity for a hearing, identifying the time and location of the hearing. (2) An owner or operator elects to exercise his opportunity for a hearing under this section, by notifying the Associate Administrator, OPS of that election in writing within 10 days of service of the notice provided under paragraph (c)(1) of this section or, under paragraph (b) of this section when applicable. Absence of such written notification waives an owner or operator's opportunity for a hearing and allows the Associate Administrator, OPS to proceed to issue a "hazardous facility order" in accordance with paragraphs (d) through (h) of this section. (3) A hearing under this section shall be presided over by an attorney from the Office of Chief Counsel, Research and Special Programs Administration, acting as Presiding Official, and conducted without strict adherence to rules of evidence. The Presiding Official presents the allegations contained in the notice issued under this section. The owner or operator of the alleged hazardous facility may submit any relevant information or materials, call witnesses and present arguments on the issue of whether or not a "hazardous facility order" should be issued. (4) Within 48 hours after conclusion of a hearing under this section, the Presiding Official shall submit a recommendation to the Associate Administrator, OPS as to whether or not a "hazardous facility order" is required. Upon receipt of the recommendation, the Associate Administrator, OPS shall proceed in accordance with paragraphs (d) through (h) of this section. If the Associate Administrator, OPS finds the facility to be hazardous to life or property the Associate Administrator, OPS shall issue an order in accordance with this section. If the Associate Administrator, OPS does not find the facility to be hazardous to life or property, the Associate Administrator, OPS shall dismiss the allegations contained in the notice, and promptly notify the owner or operator in writing by service as prescribed in Sec. 190.5.

(d) The Associate Administrator, OPS may find a pipeline facility to be hazardous under paragraph (a) of this section: (1) If under the facts and circumstances the Associate Administrator, OPS determines the particular facility is hazardous to life or property; or (2) If the pipeline facility or a component thereof has been constructed or operated with any equipment, material, or technique which the Associate Administrator, OPS determines is hazardous to life or property, unless the operator involved demonstrates to the satisfaction of the Associate Administrator, OPS that, under the particular