



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

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

OCT 24 2003

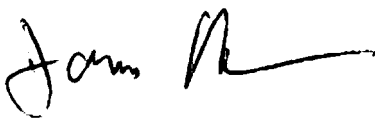
Mr. Richard A. Olsen  
Vice President, Pipeline Transportation  
Magellan Pipeline Company, LLC  
One Williams Center, Mail Drop 35-1  
Tulsa, OK 74172

Re: CPF No. 3-2003-5023H

Dear Mr. Olsen:

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 #5-12" Barnsdall-Kansas City pipeline running from the Paola pump station in Miami County, KS to the Kansas City pump station in Wyandotte County, Kansas. 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,

*for* 

Gwendolyn M. Hill  
Pipeline Compliance Registry  
Office of Pipeline Safety

Enclosure

**VIA CERTIFIED MAIL (RETURN RECEIPT REQUESTED) AND TELECOPY**

**DEPARTMENT OF TRANSPORTATION  
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION  
WASHINGTON, DC 20590**

**In the Matter of** )  
 )  
**Magellan Pipeline Company, LLC,** )  
 )  
**Respondent.** )

**CPF No. 3-2003-5023H**

**CORRECTIVE ACTION ORDER**

**Purpose and Background**

This Corrective Action Order is being issued, under authority of 49 U.S.C. § 60112, to require Magellan Pipeline Company, LLC (Respondent) to take the necessary corrective action to protect the public, property, and the environment from potential hazards associated with a failure on its #5-12" Barnsdall-Kansas City hazardous liquid pipeline (#5-12" line) extending from the Paola pump station in Miami County, KS to the Kansas City pump station in Wyandotte County, KS.

On October 6, 2003, a failure resulting in the release of diesel fuel occurred on Respondent's #5-12" line within the city limits of Shawnee, KS. 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**

- At approximately 2:20 P.M. CDT on October 6, 2003, the #5-12" line ruptured in Johnson County, KS. The rupture resulted in the release of 100 to 200 barrels of diesel fuel.
- The failure occurred in a residential development area, Cross Point, approximately 1/4 mile north of 55<sup>th</sup> Street and 1/4 mile east of Pflumm Street in Shawnee, KS. The Cross Point subdivision does not contain houses yet and is adjacent to a fully-developed subdivision.
- The release saturated surrounding soil and traveled approximately 1/4 mile downstream in a small waterway that drains into Lake Quivira. Dams and booms were installed, preventing migration of the diesel fuel release into Lake Quivira. Soil removal and cleanup of the waterway are in progress.
- No injuries, fatalities, or evacuations were reported.

- The #5-12" line is a 12-inch interstate pipeline that transports hazardous liquids in the form of gasoline, diesel fuels, and jet fuels. The segment in which the failure occurred is routed through several populated areas (including Kansas City, KS, Shawnee, KS, Overland Park, KS, and Olathe, KS), intersects highways, and passes through or by environmentally sensitive areas.
- The #5-12" line originates at the Barnsdall pump station in Osage County, OK and extends approximately 204 miles, terminating at the Kansas City pump station in Wyandotte County, KS.
- The segment of the #5-12" line in which the failure occurred (affected segment) extends from the Paola pump station, mile post (MP) 151, in Miami County, KS to the Kansas City pump station, MP 204, in Wyandotte County, KS.
- Following the failure, Respondent isolated the failed section of the #5-12" line by shutting down pumps and closing block valves at MPs 178, 179, and 204. Respondent then tapped the line approximately 150 feet downstream of the failure site and drained remaining diesel fuel from the isolated failed section into vacuum trucks.
- The cause of the failure has not yet been determined. The rupture was found by Central Region, OPS investigators to have originated from a top-side girth weld crack, approximately 8-3/4 inches in length from the 10:50 to 1:45 clock positions, on a circumferential butt weld. Respondent plans to transport the section of pipe containing the top-side girth weld crack to a metallurgist for detailed analysis.
- The affected segment of the #5-12" line lies in a right-of-way bed that includes two other parallel pipelines owned by Respondent: the "#4-12" line" and the "#3-8" line." Measured at the site of failure, the #4-12" line is approximately 12 feet to the east of the #5-12" line and the #3-8" line is approximately 19.5 feet to the east of the #5-12" line.
- The residential development around the #5-12" line failure site and the parallel #3-8" and #4-12" lines has been, and will likely be subject to continuing excavations and backfilling above and below the level of the pipeline right-of-way bed. The terrain in this area contains downgrades and upgrades, shifting contours, and soil levels that have changed due to excavation, backfilling, and precipitation. The #3-8" line was struck by an excavating contractor and ruptured in August 2002, approximately 100 yards from the current failure site.
- The affected segment of the #5-12" line is constructed of 12-inch nominal diameter, .312-inch wall thickness, seamless, 5LX-42-grade, carbon steel pipe manufactured in 1950 by Jones and Laughlin Steel Company.
- The affected segment of the #5-12" line is cathodically protected by impressed current and is coated with coal-tar enamel.

- The maximum operating pressure (MOP) of the affected segment of the #5-12" line is 1200 psig. At the time of the failure, the operating pressure at the failure site was 613 psig.
- The MOP of the affected segment of the #5-12" line was established by hydrostatic testing, surge analysis, component ratings, and required design safety factors. Respondent performed a subsequent hydrostatic test at 1512 psig on June 16 - July 20, 1994.
- Respondent conducted an in-line inspection on the affected segment of the #5-12" line in 2000.
- Respondent reported five additional releases on the #5-12" line between 1953 and 2001, including a leak from a cracked girth weld at MP 131 in 1977.
- Respondent is headquartered in Tulsa, Oklahoma and operates 6,700 miles of petroleum products pipeline. Respondent is a component of Magellan Midstream Partners, LP.

#### **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.

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 the #5-12" line without corrective measures would be hazardous to life, property, and the environment. Additionally, after considering the proximity of portions of the pipeline to populated areas, residential development areas, public highways, and environmentally sensitive areas, as well as the lack of a determination as to 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, and the environment.

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, 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 the Respondent, Magellan Pipeline Company, to immediately take the following corrective actions with respect to the affected segment of its #5-12" line extending from the Paola pump station in Miami County, KS to the Kansas City pump station in Wyandotte County, KS:

1. Maintain a minimum 20 percent (20%) reduction in the in-service operating pressure on the affected segment of the #5-12" line. The operating pressure shall not exceed 80 percent of the operating pressure in effect immediately prior to the failure. Specifically, the operating pressure is not to exceed 491 psig at the point of failure. This pressure restriction shall remain in effect until written approval to return the pipeline to normal operating pressure is obtained from the Director, Central Region, OPS.
2. Determine the cause of the failure and identify any contributing factors by conducting detailed metallurgical testing and failure analysis of the ruptured section of pipe. In addition to failure analysis, the metallurgical testing must include an evaluation of the failed pipe section for the presence of stress corrosion cracking, metal fatigue, or any other condition that could affect the long-term integrity of the pipeline. Provide the Director, Central Region, OPS with at least 7 days advance notice of the date scheduled for this testing, which OPS may elect to witness, and submit the testing protocol to the Director, Central Region, OPS for approval as soon as it is developed. Submit all metallurgical analysis reports to the Director, Central Region, OPS within 7 days of receiving them.
3. Submit a written plan for remedial action, with a proposed schedule for testing and repairs, for prior approval by the Director, Central Region, OPS within 30 days of your receipt of this Order. The plan must provide for the integration of all available operational data and the evaluation and remediation of all known or suspected factors contributing to the October 6, 2003 failure. The plan must describe the inspection and repair criteria and other mitigating actions that will be implemented in the process. The plan must be updated as necessary to incorporate the results of the testing and analysis required in Item 2 as those results become available.

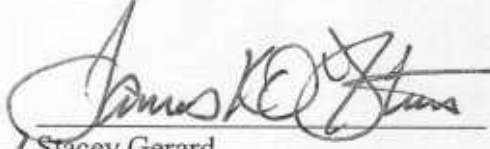
4. The plan must propose a method for evaluation of terrain in the area of the failure site that considers the possibility of stresses on the pipe caused by soil settling under the pipe bed, repetitive loading and unloading of varying quantities of soil over and near the pipe, topography, soil shifting, precipitation effects, and any other soil-related condition that may place excess stresses on the pipe.
5. Each element of the plan and its scheduling must be approved in advance by the Director, Central Region, OPS, who may provide the approvals incrementally. The plan may be revised, as necessary, to incorporate new information obtained during the investigation and determinations concerning the cause of the failure. Revisions are subject to approval by the Director, Central Region, OPS. The plan must be fully implemented, as each element is approved, according to the set schedule.
6. Integrate and review all operational, maintenance and repair, and environmental data from the #3-8" and #4-12" lines adjacent to the #5-12" line for the purpose of determining whether the conditions or factors which caused or contributed to the October 6, 2003 failure of the #5-12" line may exist on the adjacent pipelines. Submit the results of this evaluation to the Director, Central Region, OPS within 60 days of receipt of this Order. If this evaluation identifies any such conditions in the adjacent pipelines, the submission must also include a remedial plan, with a schedule, for prior approval by the Director, Central Region, OPS setting forth the proposed actions needed to remedy the concerns and ensure the integrity of those pipelines.
7. If approval of the Director, Central Region, OPS, is requested to remove or modify the pressure restriction set forth in Item 1 of this Corrective Action Order, Respondent must submit written information demonstrating that the hazard has been abated and that restoring the pipeline 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.

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.

Respondent may appeal any decision of the Director, Central Region, OPS to the Associate Administrator for Pipeline Safety. Decisions of the Associate Administrator shall be final.

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 Respondent's 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

OCT 24 2008

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Date Issued