



U.S. Department  
of Transportation

**JULY 20 2012**

1200 New Jersey Avenue, SE  
Washington, D.C. 20590

**Pipeline and Hazardous  
Materials Safety  
Administration**

**VIA CERTIFIED MAIL AND FAX TO: (610) 904-4645**

Mr. Clark Smith  
President & Chief Executive Officer  
Buckeye Partners, L.P.  
One Greenway Plaza  
Suite 600  
Houston, TX 77046

Mr. Carl Ostach  
Vice President, Domestic Field Operations  
West Shore Pipeline Company  
5 Tek Park, 9999 Hamilton Blvd., Breinigsville, PA 18031

**Re: CPF No. 3-2012-5016H**

Dear Sirs:

Enclosed is a Corrective Action Order issued in the above-referenced case. It finds that operation of the 10-inch diameter West Shore hazardous liquid pipeline, Line 254, is hazardous to life, property, and the environment without immediate corrective action.<sup>1</sup> The Corrective Action Order requires you to take immediate action to protect the public, property, and the environment in connection with the failure of Line 254 that occurred on July 17, 2012, near Jackson, Wisconsin (WI). 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 Order are effective upon receipt.

We look forward to a successful resolution of the concerns arising out of this failure to ensure the safe operation of the pipeline. Please direct any questions on this matter to David Barrett, Director, Central Region, OPS, at (816) 329-3800.

Sincerely,

Jeffrey D. Wiese  
Associate Administrator  
for Pipeline Safety

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<sup>1</sup> Buckeye is the fifty percent owner of a joint venture partnership that owns interest in West Shore Pipe Line Company. West Shore owns and operates the refined products pipeline system.  
<http://www.buckeye.com/BusinessOperations/JointVenturesMinorityInterests/tabid/589/Default.aspx> (last accessed July 20, 2012)

Enclosure: Corrective Action Order and Copy of 49 C.F.R. §190.233

cc: Mr. Robert Malecky, President of Domestic Pipelines & Terminals, Buckeye Partners,  
LP, 5 Tek Park, 9999 Hamilton Blvd., Breinigsville, PA 18031  
Mr. Alan Mayberry, Deputy Associate Administrator for Field Operations, OPS  
Mr. David Barrett, Director, Central Region, PHMSA

**U.S. DEPARTMENT OF TRANSPORTATION  
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION  
OFFICE OF PIPELINE SAFETY  
WASHINGTON, D.C. 20590**

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**In the Matter of** )

West Shore Pipeline Company, )

Respondent )  
\_\_\_\_\_ )

CPF No. 3-2012-5016H

**CORRECTIVE ACTION ORDER**

**Purpose and Background**

This Corrective Action Order (Order) is being issued, under authority of 49 U.S.C. § 60112, to West Shore Pipeline Company (West Shore or Respondent), the operator of the 10-inch diameter hazardous liquid pipeline, designated as Line 254, that runs from Respondent's Granville terminal and pump station in Granville, Wisconsin (WI) to its Green Bay terminal located in Green Bay, WI (Affected Pipeline). This Order finds that operation of the pipeline without corrective action is hazardous to life, property, or the environment and requires Respondent to take immediate action to ensure the safe operation of the pipeline.

On July 17, 2012, Respondent experienced a failure on the Affected Pipeline requiring shutdown. On July 18, 2012, Respondent reported a refined petroleum products release to the National Response Center (NRC) and subsequently, submitted a second notification to report to the NRC that it had identified the failure site in Jackson, WI (Failure). Respondent currently estimates the volume of the product spill to be approximately 1,000 barrels of unleaded gasoline.

Pursuant to 49 U.S.C. § 60117, the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), initiated an investigation of the Failure. OPS determined that the release originated from the Affected Segment, but the cause of the Failure has not yet been determined. The preliminary findings of the investigation are as follows:

**Preliminary Findings**

- At approximately 10:40 a.m. CDT, on July 17, 2012, Respondent experienced a sudden pressure drop that corresponded with a sudden increase in flow rate on the Affected Pipeline requiring shut down of the line and the notification of field personnel in Wisconsin

- Following the Failure, Respondent isolated the failed pipe by closing remote valves at Granville Terminal and Elkhart Lake Station, located upstream and downstream of the Failure site. Respondent also closed a check valve at the Elkhart Lake Station that prevented backflow to the Failure site. The Elkhart Lake Station is an intermediate pump station located approximately 48 miles north of Granville Terminal. Field personnel closed manual valves located at Mile Post (M.P.) M.P. 18.3 and M.P. 40.7.
- On July 17, 2012, Respondent initiated aerial patrols on the Affected Pipeline, but discovered no spill. Respondent set up an Incident Command Center in Granville, WI.
- At 9:01 a.m. CDT, on July 18, 2012, Respondent notified the NRC of a potential discharge of gasoline (NRC Report No. 1018117). At approximately 11:05 am CDT, the Failure site was identified by ground patrol between the Granville and Elkhart Lake pump stations at MP 9.43 located in Jackson, WI.
- At approximately 12:14 p.m. CDT on July 18, 2012, Respondent submitted a supplemental report to the NRC (Report No. 1018156). The report indicated that the location of the pipeline release had been determined to be at 1880 Western Ave in Jackson, WI, and estimated the volume of the spill to be 1,000 barrels of unleaded gasoline.
- Due to the Failure site's proximity to a populated area, at least two homes were evacuated.
- The 10-inch diameter Line 254 pipeline system originates at the Granville Terminal proceeds north for approximately 98 miles and terminates at the Green Bay Terminal (the Affected Pipeline).
- The Affected Pipeline crosses a navigable waterway, the Fox River, near Green Bay and intersects approximately 31.3 miles of High Consequence Areas (HCAs) and 34.3 miles of could affect HCAs, including drinking water sources, "Other Populated Areas", and "High Population Areas", before terminating in the Green Bay area. The first seven miles of the Affected Pipeline, downstream of Granville, WI, runs parallel to a railroad and another pipeline near Germantown, WI (other populated area). The remainder of the pipeline route is mostly rural.
- The cause of the failure is unknown and the investigation is ongoing. PHMSA initiated an onsite investigation. Preliminary observation indicates the presence of longitudinally oriented split of the pipe associated with the seam at the 3 o'clock position. The pipeline currently remains out of service.
- The Affected Pipeline was constructed in 1961 of 10-inch, grade X52, low frequency electric resistance welded (ERW) pipe manufactured by Jones & Laughlin with a 0.203-inch wall thickness at the Failure site. It has a coal tar enamel coating and an impressed-current cathodic protection system.

- Respondent reported that approximately 97 miles of the Affected Pipeline was constructed in 1961 with pipe containing a low frequency ERW seam.
- At the time of the Failure, the discharge pressure at the Granville terminal and pump station, located approximately 10 miles upstream of the Failure site, was 1,342 psig. The established maximum operating pressure (MOP) of the pipeline is 1342 psig.
- Respondent performed a hydrostatic test of the pipeline on May 22, 1990 to a minimum test pressure of 1,822 psig. During the hydrotest, one failure occurred due to a crack in a butt weld at MP 166.
- Respondent performed an inline inspection (ILI) of the pipeline utilizing a combination magnetic flux leakage (MFL) and geometry tool on September 3, 2009. The pipeline was assessed using transverse MFL technology on October 24, 2009.
- In October 2006, two barrels were released at Granville Terminal and pump station due to an equipment failure. In January 1999, third party damage caused a release of 975 barrels near Germantown, WI.
- PHMSA's predecessor agency, the Research and Special Programs Administration, issued Alert Notice ALN-88-01 alerting operators of the susceptibility of failure of ERW seam pipe manufactured prior to 1970. The Alert Notice advised operators to take steps to prevent failures on pipe manufactured using a low frequency ERW process.
- West Shore is an affiliate of Buckeye Partner, L.P., which owns and operates approximately 6,000 miles of pipelines transporting refined petroleum products and highly volatile liquids.<sup>2</sup>

### **Determination of Necessity for Corrective Action Order and Right to Hearing**

Under 49 U.S.C. § 60112 and 49 C.F.R. § 190.233, the Associate Administrator for Pipeline Safety (Associate Administrator) may issue a corrective action order after providing reasonable notice and the opportunity for a hearing if he finds that a particular pipeline facility is or would be hazardous to life, property, or the environment. The terms of such an order may include the suspended or restricted use of a pipeline facility, physical inspection, testing, repair, replacement, or any other action as appropriate. The Associate Administrator may also issue a corrective action order without providing any notice or the opportunity for a hearing if he finds that a failure to do so expeditiously will result in likely serious harm to life, property or the environment. The opportunity for a hearing will be provided as soon as practicable after the issuance of the CAO in such cases.

After evaluating the foregoing preliminary findings of fact, I find that the continued operation of the pipeline without corrective measures would be hazardous to life, property and the environment. Additionally, after considering the age of the pipe, circumstances surrounding this

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<sup>2</sup> <http://www.buckeye.com/BusinessOperations/tabid/56/Default.aspx> and <http://www.buckeye.com/AboutUs/tabid/54/Default.aspx> (last accessed on July 19, 2012).

Failure, the proximity of the pipeline to populated areas, water bodies and drinking water resources, public roadways and high consequence areas, the hazardous nature of the product the pipeline transports, the uncertainties as to the cause of the failure, and the ongoing investigation to determine the cause of the failure, I find that a failure to issue this Order expeditiously to require immediate corrective action would result in likely serious harm to life, property, and 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, Missouri or Washington, D.C. on a date that is mutually convenient to PHMSA and Respondent.

After receiving and analyzing additional data in the course of this investigation, PHMSA may identify other corrective measures that need to be taken. 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, West Shore Pipeline Company is ordered to immediately take the following corrective actions to ensure the safe operation of the Affected Pipeline:

1. Develop and submit a written re-start plan for prior approval of the Director, Central Region, OPS (Director). Obtain written approval from the Director prior to resuming operation of the Affected Pipeline. Submit the written plan to the Director at the Pipeline and Hazardous Materials Safety Administration, 901 Locust Street, Suite 462, Kansas City, MO 64106-2641. The restart plan must specify an incremental start-up with each pressure increment to be held for at least 2 hours. Updates at these 2 hour increments shall be provided to the Director that indicate status, pressure and flow conditions and any abnormal operating condition development. The plan must also provide for adequate patrolling of the Affected Pipeline during the restart process to ensure the prompt detection of leaks, include a daylight restart, and detail advance communications with local emergency response officials.
2. After receiving approval from the Director to restart the Affected Pipeline, maintain a twenty percent (20%) pressure reduction in the operating pressure of the Affected Pipeline. The discharge pressure at Granville pump station must be reduced 20% from the actual operating pressure at the time of failure. Specifically the discharge pressure at Granville Station is not to exceed 1,073 psig. The discharge pressure at Elkhart Lake pump station must be reduced 20% from the highest minimum operating pressure experienced for 1 hour within ten days prior to the failure. Specifically, the discharge pressure at the Elkhart Lake station is not to exceed 804 psig. 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 pursuant to Item 10.

3. Within 45 days of receipt of this Order, complete mechanical and metallurgical testing and failure analysis of the failed pipe, including analysis of soil samples and any foreign materials. Complete the testing and analysis as follows:
  - A. Document the chain-of-custody when handling and transporting the failed pipe section and other evidence from the failure site;
  - B. Use the testing protocol provided by PHMSA and submit the selection of the testing laboratory to the Director for prior approval.
  - C. Prior to commencing the mechanical and metallurgical testing, provide the Director with the scheduled date, time, and location of the testing to allow a PHMSA representative to witness the testing; and
  - D. Ensure that the testing laboratory distributes all resulting reports in their entirety (including all media), whether draft or final, to the Director at the same time as they are made available to Respondent.
4. Within 30 days of receipt of this Order, conduct an evaluation of the previous inline inspection (ILI) results, including a review and reporting by the ILI vendors' analysts (including raw data) of the failed Affected Pipeline as follows:
  - A. Submit any and all reports as received from the vendors utilized for the 2009 ILI runs.
  - B. Re-evaluate the 2009 inline inspection results to determine whether any features were present in the failed pipe joint. Determine if any features with similar characteristics are present elsewhere on the pipeline;
  - C. Evaluate West Shore's process for reviewing ILI results, utilizing an independent third party consultant acceptable to the Director;
  - D. Within 15 days of the completion of the re-evaluation of the 2009 ILI results and evaluation of West Shores ILI process, submit a report describing the ILI features present in the failed joint, the process used to re-evaluate ILI results, and the results of the re-evaluation including characterization of the size and location of similar features on the pipeline. The report must also describe West Shore's ILI results review process and any identified improvements by the third party consultant to ensure that integrity-threatening anomalies are acted upon.
5. Within 90 days following receipt of this Order, submit an integrity verification and remedial work plan ("Work Plan") to the Director for approval. The Work Plan must provide for the verification of the integrity of the pipeline and must address all factors known or suspected in the July 17, 2012 failure, including, but not limited to the following:

- A. The integration of the results of the failure analyses and other actions required by this Order with all relevant operating data including all historical repair information, construction, operating, maintenance, testing, metallurgical analysis or other third party consultation information, and assessment data for the delivery line. Data gathering activities must include a review of the failure history (in service and pressure test failures) of the pipeline and development of a written report containing all available information regarding locations, dates, and causes of leaks and failures;
  - B. The performance of additional field testing, inspections, and evaluations to determine whether and to what extent the conditions associated with the failures, or any other integrity-threatening conditions are present elsewhere on the pipeline. At a minimum, the inspections and evaluations must consider use of in-line inspection that can reliably detect and identify anomalies, and close-interval surveys or other cathodic protection surveys. Include a detailed description of the criteria to be used for the evaluation and prioritization of any integrity threats and anomalies that are identified with the necessity of establishing a 1.39 x MOP factor of safety upon completion of testing, inspections and evaluations;
  - C. The performance of repairs or other corrective measures that fully remediate the condition(s) associated with the pipeline failures and any other integrity-threatening condition everywhere along the Affected Pipeline. Based on the known history and condition of the pipeline, the plans for repairs must include: (1) replacement of the Affected Pipeline or portions thereof (or technical justification for not doing so); and/or (2) confirmatory hydrostatic pressure testing of the entire Affected Pipeline. Include a detailed description of the criteria and method(s) to be used in undertaking any repairs, replacements, or other remedial actions;
  - D. The implementation of continuing long-term periodic testing and integrity verification measures to ensure the ongoing safe operation of the Affected Pipeline considering the results of the analyses, inspections, and corrective measures undertaken pursuant to the Order, and;
  - E. A schedule for completion of the Items A–D.
6. The Work Plan becomes incorporated into this Order. Respondent must revise the work plan as necessary to incorporate the results of actions undertaken pursuant to this Order and whenever necessary to incorporate new information obtained during the failure investigation and remedial activities. Submit any such plan revisions to the Director for prior approval. The Director may approve plan elements incrementally.
  7. Implement the Work Plan as it is approved by the Director, including any revisions to the plan.
  8. Submit monthly reports to the Director that: (1) include all available data and results of the testing and evaluations required by this Order; and (2) describe the progress of the

repairs or other remedial actions being undertaken. The first monthly report for the period from July 20 through August 31, 2012 shall be due by August 17, 2012.

9. It is requested but not required that Respondent maintain documentation of the costs associated with implementation of this Corrective Action Order. Include in each monthly report submitted, the to-date total costs associated with: (1) preparation and revision of procedures, studies and analyses; (2) physical changes to pipeline infrastructure, including repairs, replacements and other modifications; and (3) environmental remediation, if applicable.
10. The Director 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.

The Director may grant an extension of time for compliance with any of the terms of this Order upon a written request timely submitted demonstrating good cause for an extension.

With respect to each submission that under this Order requires the approval of the Director, the Director may: (a) approve, in whole or part, the submission; (b) approve the submission on specified conditions; (c) modify the submission to cure any deficiencies; (d) disapprove in whole or in part, the submission, directing that Respondent modify the submission, or (e) any combination of the above. In the event of approval, approval upon conditions, or modification by the Director, Respondent must take all action required by the submission as approved or modified by the Director. If the Director disapproves all or any portion of the submission, Respondent must correct all deficiencies within the time specified by the Director, and resubmit it for approval. If a resubmitted item is disapproved in whole or in part, the Director may again require Respondent to correct the deficiencies in accordance with the foregoing procedure, and the Director may otherwise proceed to enforce the terms of this Order.

Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. 552(b), you must provide, along with the complete original document, a second copy of the document with those portions you believe qualify for confidential treatment redacted, along with an explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. 552(b).

In your correspondence on this matter, please refer to "CPF No. 3-2012-5016H" and for each document you submit, please provide a copy in electronic format whenever possible. The actions required by this Corrective Action Order are in addition to and do not waive any requirements that apply to Respondent's pipeline system under 49 C.F.R. Part 195, under any other order issued to Respondent under authority of 49 U.S.C. § 60101 et seq., or under any other provision of Federal or State law.

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 and in referral to the Attorney General for appropriate relief in United States District Court pursuant to 49 U.S.C. § 60120.

The terms and conditions of this Corrective Action Order are effective upon receipt.

A handwritten signature in black ink, appearing to read "J. Wiese", is written over a horizontal line.

Jeffrey D. Wiese  
Associate Administrator  
for Pipeline Safety

JUL 20 2012  
Date Issued