



U.S. Department
of Transportation
**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

September 13, 2024

VIA ELECTRONIC MAIL TO: trusso@buckeye.com

Todd Russo
Chief Executive Officer
Buckeye Partners, LP
4200 Westheimer Road, Suite 975
Houston, Texas 77027

CPF No. 1-2024-055-CAO

Dear Mr. Russo:

Enclosed please find a Corrective Action Order (CAO or Order) issued by the Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety, in the above-referenced case. It requires Buckeye Partners, LP to take certain corrective actions with respect to the September 5, 2024, leak of gasoline from its hazardous liquid pipeline facilities in Linden, New Jersey.

Service of the CAO by e-mail is deemed complete upon transmission and acknowledgement of receipt, or as otherwise provided under 49 C.F.R. § 190.5. The terms and conditions of this Order are effective upon completion of service.

Sincerely,

ALAN KRAMER MAYBERRY
Digitally signed by ALAN
KRAMER MAYBERRY
Date: 2024.09.13
08:34:56 -04'00'

Alan K. Mayberry
Associate Administrator
for Pipeline Safety

Enclosure: CAO

cc: Ms. Linda Daugherty, Deputy Associate Administrator for Field Operations, OPS
Mr. Robert Burrough, Director, Eastern Region, OPS
Mr. Craig Brown, Vice President, Environmental & DOT Compliance
Buckeye Partners, LP, cbrown@buckeye.com

Mr. Robert Osika, Director, DOT Compliance, Buckeye Partners, LP,
rosika@buckeye.com@buckeye.com

Mr. Mark Copeland, Manager, Pipeline Safety & DOT Compliance, Buckeye Partners,
LP, mcopeland@buckeye.com

CONFIRMATION OF RECEIPT REQUESTED

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

In the Matter of

Buckeye Partners, LP,

Respondent.

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CPF No. 1-2024-055-CAO

CORRECTIVE ACTION ORDER

Purpose and Background

This Corrective Action Order (CAO or Order) is being issued by the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), under the authority of 49 U.S.C. § 60112 and 49 C.F.R. § 190.233, to require Buckeye Partners, LP (Buckeye or Respondent) to take the necessary corrective actions to protect the public, property, and the environment from potential hazards associated with the September 5, 2024, release from its hazardous liquid pipeline facilities located near Linden, New Jersey (Accident).

Respondent operates a hazardous liquid pipeline system that includes over 5,000 miles of pipeline across several locations in the United States, including in the Linden, New Jersey area. Buckeye's hazardous liquid facilities in the Linden area include numerous pipelines traversing the states of New Jersey, New York, and Pennsylvania, including breakout tanks, a pump station, and two 12-inch hazardous liquid pipelines (Lines 601 and 602) running between Linden, New Jersey and Long Island, New York (approximately 2.8 miles in length). Line 602 is a hazardous liquid pipeline facility subject to the pipeline safety laws in 49 U.S.C. chapter 601 and 49 C.F.R. part 195.

At approximately 6:00 P.M. Eastern Daylight Time (EDT)¹, on September 5, 2024, Respondent was notified by personnel of another local pipeline operator of an odor in the area of Buckeye's 12-inch hazardous liquid pipeline, Line 602, in Linden, New Jersey. Respondent's subsequent investigation discovered that a leak of unleaded gasoline was occurring from Line 602, resulting in the release of approximately ten gallons of hazardous liquid.

In response, Buckeye closed remote block valves, shut down Line 602, and dispatched personnel to the site. There were no reports of fires, injuries, fatalities, or evacuations.

Pursuant to 49 U.S.C. § 60117, PHMSA's OPS initiated an investigation of the Accident. The

¹ All times specified in this order reflect EDT.

preliminary findings of OPS' ongoing investigation are as follows:

Preliminary Findings

- At approximately 6:00 P.M. on September 5, 2024, Respondent was notified by the personnel of another local pipeline operator of an odor in the area of Buckeye's 12-inch hazardous liquid pipeline, Line 602, in Linden, New Jersey. Respondent's subsequent investigation discovered that a leak of unleaded gasoline was occurring from Line 602, resulting in the release of approximately ten gallons of hazardous liquid.
- Buckeye's control center remotely shut down Line 602; closed block valves located at Valve Site 1L-Linden Station, stationing (Sta.) 3+72, and Valve Site 2L-West Side Arthur Kill, Sta. 130+30; and dispatched personnel to determine the cause.
- Buckeye reported the Accident to the National Response Center (NRC) at 6:31 P.M. on September 5, 2024 (NRC Report No. 1410029), indicating the Accident resulted in the release an estimated ten gallons of unleaded gasoline. Buckeye's investigation noted a sheen on standing water in proximity to adjacent Piles Creek.
- The failure occurred in a high consequence area, near a commercially navigable waterway – the Arthur Kill River – approximately one mile from Linden Station. Line 602 traverses several high consequence areas.
- Prior to the failure, the operating pressure on Line 602 was 1,141 pounds per square inch gauge (psig). The maximum operating pressure (MOP) of the line is 1,222 psig.
- Line 602 is a 12-inch nominal diameter, 0.250-inch wall thickness, API 5L, X-60 grade, seamless pipe that was constructed in 1965. It has a coal tar coating and an impressed current cathodic protection system.
- Line 602 runs from the Linden, New Jersey terminal to New Lots Junction in New York. Line 602 then travels to Long Island City, New York, and then to LaGuardia Airport.
- Line 602, including the September 5, 2024 failure location, was the subject of a previous PHMSA CAO, CPF No. 1-2021-034-CAO.²
- On September 4, 2024, the day before the Accident, Respondent performed an in-line inspection (ILI) tool run on Line 602, utilizing both a geometry and magnetic flux leakage (MFL). The results of the ILI run are not yet available for review.

² See <https://primis.phmsa.dot.gov/enforcement-data/case/12021034CAO>.

- On September 8, 2024, the Director, Eastern Region, OPS, approved Respondent's written restart plan (attached) for Line 602, with a 20 percent reduced operating pressure after the section of pipe where the release occurred was cut out and replaced.
- PHMSA's on-site investigation and observations of the pipe where the failure occurred noted apparent external metal loss due to corrosion.

Determination of Necessity for Corrective Action Order and Right to Hearing

Section 60112 authorizes PHMSA to determine that a pipeline facility is or would be hazardous to life, property, or the environment and if there is a likelihood of serious harm, to expeditiously order to the operator of the facility to take necessary corrective action, including suspended or restricted use of the facility, physical inspection, testing, repair, replacement, or other appropriate action. An order issued expeditiously must provide an opportunity for a hearing as soon as practicable after the order is issued.

In deciding whether to issue an order, PHMSA must consider the following, if relevant: (1) the characteristics of the pipe and other equipment used in the pipeline facility, including the age, manufacture, physical properties, and method of manufacturing, constructing, or assembling the equipment; (2) the nature of the material the pipeline facility transports, the corrosive and deteriorative qualities of the material, the sequence in which the material are transported, and the pressure required for transporting the material; (3) the aspects of the area in which the pipeline facility is located, including climatic and geologic conditions and soil characteristics; (4) the proximity of the area in which the pipeline facility is located to environmentally sensitive areas; (5) the population density and population and growth patterns of the area in which the pipeline facility is located; (6) any recommendation of the National Transportation Safety Board made under another law; and (7) other factors PHMSA may consider as appropriate.

After evaluating the foregoing preliminary findings of fact and having considered the age of the pipeline; the hazardous nature of the materials transported; the unknown cause of the September 5, 2024, release of gasoline; the March 2021 failure on Line 602 that resulted in PHMSA's issuance of a previous CAO, CPF No. 1-2021-034-CAO; the presently unknown results from the September 4, 2024, ILI run conducted on Line 602; the location of the failure and release occurring in a high consequence area and Line 602's path through several high consequence areas; the area of the failure in a low-lying marshy area near a navigable body of water and near Linden, New Jersey; and the likelihood, as based on past failures, that similar conditions conducive to corrosion exist could exist on Line 602, I find that continued operation of the Affected Segment, as defined below, without corrective measures is or would be hazardous to life, property, or the environment, and that failure to issue this Order expeditiously would result in the likelihood of serious harm.

Accordingly, under 49 C.F.R. § 190.233(b), this Order mandating immediate corrective action is issued expeditiously 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, with a copy to the Director, OPS Eastern Region, PHMSA (Director). If a hearing is requested, it will be held in accordance with 49 C.F.R. § 190.211.

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, if appropriate, PHMSA will consider amending this Order. 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 Actions

Definitions:

Affected Segment – The "*Affected Segment*" means Buckeye's Line 602 between the valve at Valve Site 1L - Linden Station (Sta 3+72) and the valve at Valve Site 2L – West Side Arthur Kill (Sta 130+30).

Director – The Director, Eastern Region, PHMSA, OPS, 840 Bear Tavern Rd., Ste. 300, West. Trenton, New Jersey 08628.

Day – Calendar day.

Pursuant to 49 U.S.C. 60112, I hereby order Respondent to immediately take the following corrective actions:

1. ***Operating Pressure Restriction.*** As specified in Buckeye's written restart plan approved by the Director on September 8, 2024, Buckeye must reduce and maintain a twenty percent (20%) pressure reduction in the actual operating pressure along the entire length of the *Affected Segment*, such that the operating pressure along the *Affected Segment* will not exceed eighty percent (80%) of the actual operating pressure in effect immediately prior to the Accident on September 5, 2024.
 - a. This pressure restriction is to remain in effect until written approval to increase the pressure or return a pipeline to its pre-failure operating pressure is obtained from the Director.
 - b. Within 15 days of receipt of this Order, Respondent must provide the Director the actual operating pressures of each pump station on the *Affected Segment* at the time of failure and the reduced pressure restriction set-points at these same locations.
 - c. This pressure restriction requires any relevant remote or local alarm limits, software programming set-points or control points, and mechanical over-pressure devices to be adjusted accordingly.
 - d. When determining the pressure restriction set-points, Respondent must take into account any ILI features or anomalies present in the *Affected Segment* to provide for

continued safe operation while further corrective actions are completed.

- e. Respondent must review the pressure restriction monthly by analyzing the operating pressure data, taking into account any ILI features or anomalies present in the *Affected Segment*. Respondent must immediately reduce the operating pressure further to maintain the safe operations of the *Affected Segment*, if warranted by the monthly review. Respondent must submit the results of the monthly review to the Director including, at a minimum, the current discharge set-points (including any additional pressure reductions), and any pressure exceedance at discharge set-points. Submittals must be made quarterly, in accordance with Item 11 of this Order below.
2. ***Instrumented Leakage Survey.*** Within 30 days of receipt of this Order, Respondent must perform an aerial or ground instrumented leakage survey of the *Affected Segment*. Respondent must investigate all leak indications and remedy all leaks discovered. Respondent must submit documentation of this survey to the Director within 45 days of receipt of this Order.
3. ***Mechanical and Metallurgical Testing.*** Within 45 days of receipt of this Order, Respondent must complete mechanical and metallurgical testing and failure analysis of the failed pipe, including an analysis of soil samples and any foreign materials. Mechanical and metallurgical testing must be conducted by an independent third-party acceptable to the Director, and must document the decision-making process and all factors contributing to the failure. Respondent must 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. Within 10 days of receipt of this Order, develop and submit the testing protocol and the proposed testing laboratory to the Director for prior approval.
 - c. Prior to beginning the mechanical and metallurgical testing, provide the Director with the scheduled date, time, and location of the testing to allow for an OPS representative to witness the testing.
 - d. Ensure the testing laboratory distributes all reports whether draft or final in their entirety to the Director at the same time they are made available to Respondent.
4. ***Root Cause Failure Analysis.*** Within 120 days following receipt of this Order, complete a *root cause failure analysis* (RCFA) and submit a final report of this RCFA to the Director. The RCFA must be supplemented or facilitated by an independent third-party (which is without relationship to third parties used in complying with the RCFA requirement in CPF No. 1-2021-034-CAO) acceptable to the Director and must document the decision-making process and all factors contributing to the failure. The final report must include findings and any lessons learned and whether the findings and lessons learned are applicable to other locations within Respondent's pipeline system. The RCFA must also address how a potential corrosion condition, if found to be applicable to the cause of this Accident, was not identified and remediated under the past CAO, CPF No. 1-2021-034-CAO.
5. ***Remedial Work Plan (RWP).***
 - a. Within 30 days following submission of the RCFA, Respondent must submit to the

Director for approval a *remedial work plan* (RWP) that addresses the conditions described in the RCFA that contributed to the Accident.

- b. The Director may approve the RWP incrementally without approving the entire RWP.
- c. Once approved by the Director, the RWP will be incorporated by reference into this Order.
- d. The RWP must specify the tests, inspections, assessments, evaluations, and remedial measures Respondent will use to verify the integrity of the *Affected Segment*. It must address all known or suspected contributing factors to the Accident. Respondent must consider the risks and consequences of another failure to develop a prioritized schedule for RWP-related work along the *Affected Segment*.
- e. The RWP must include a procedure or process to:
 - i. Identify pipe in the *Affected Segment* with characteristics similar to the contributing factors identified for the Accident.
 - ii. Gather all data necessary to review the failure history (in service and pressure test failures) of the *Affected Segment* and to prepare a written report containing all the available information such as the locations, dates, and causes of leaks and failures.
 - iii. Integrate the results of the metallurgical testing, root cause failure analysis, and other corrective actions required by this Order with all relevant pre-existing operational and assessment data for the *Affected Segment*, including pertinent information associated with the RWP created under CPF No. 1-2021-034-CAO. Pre-existing operational data includes, but is not limited to, design, construction, operations, maintenance, testing, repairs, prior metallurgical analyses, and any third-party consultation information. Pre-existing assessment data includes, but is not limited to, ILI tool runs, hydrostatic pressure testing, direct assessments, close interval surveys, and DCVG/ACVG surveys.
 - iv. Determine if conditions similar to those contributing to the Accident are likely to exist elsewhere on the *Affected Segment*.
 - v. Conduct additional field tests, inspections, assessments, and evaluations to determine whether, and to what extent, the conditions associated with the Accident and other failures from the failure history (see (e)(ii) above) or any other integrity threats are present elsewhere on the *Affected Segment*. At a minimum, this process must consider all failure causes and use:
 - 1) ILI tools with ultrasonic thickness (UT) measurement technology, or one or more of the following, if necessary:
 - 2) Hydrostatic pressure testing;
 - 3) Close-interval surveys;
 - 4) Cathodic protection surveys, to include interference surveys in coordination with other utilities (e.g., underground utilities, overhead power lines, etc.) in the area;
 - 5) Coating surveys, such as DCVG/ACVG;

- 6) Stress corrosion cracking surveys;
- 7) Selective seam corrosion surveys; and
- 8) Other tests, inspections, assessments, and evaluations appropriate for the failure causes.

Note: The results of tests, inspections, assessments, and evaluations conducted prior to issuance of this CAO may be used only if they included UT measurement technology.

- vi. Describe the inspection and repair criteria Respondent will use to prioritize, excavate, evaluate, and repair anomalies, imperfections, and other identified integrity threats. Include a description of how any defects will be graded and a schedule for repairs or replacement.
- vii. Based on the known history and condition of the *Affected Segment*, describe the methods Respondent will use to repair, replace, or take other corrective measures to remediate the conditions associated with the Accident and to address other known integrity threats along the *Affected Segment*. The repair, replacement, or other corrective measures must meet the criteria specified in (e)(vi) above.
- viii. Implement continuing long-term periodic testing and integrity verification measures to ensure the ongoing safe operation of the *Affected Segment* considering the results of the analyses, inspections, evaluations, and corrective measures undertaken pursuant to the Order.
- f. Include a proposed schedule for completion of the RWP.
- g. Respondent must revise the RWP as necessary to incorporate new information obtained during the failure investigation and remedial activities, to incorporate the results of actions undertaken pursuant to this Order, and to incorporate modifications required by the Director.
- h. Submit any plan revisions to the Director for prior approval.
 - i. The Director may approve plan revisions incrementally.
 - ii. All revisions to the RWP after it has been approved and incorporated by reference into this Order will be fully described and documented in the *CAO Documentation Report*, see below.
- i. Implement the RWP as it is approved by the Director, including any revisions to the plan.

6. *Removal of Pressure Restriction.*

- a. The Director may allow the removal or modification of the pressure restriction upon a written request from Respondent demonstrating that modifying or restoring the *Affected Segment* to its pre-failure operating pressures 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.
- b. The Director may allow the temporary removal or modification of the pressure restrictions upon a written request from Respondent demonstrating that temporary

mitigative and preventive measures are implemented prior to and during the temporary removal or modification of the pressure restriction. The Director's determination will be based on the failure cause and provision of evidence that preventative and mitigative actions taken by the operator provide for the safe operation of the *Affected Segment* during the temporary removal or modification of the pressure restriction. Appeals to determinations of the Director in this regard will be decided by the Associate Administrator for Pipeline Safety.

7. ***Review of Prior Inline Inspection (ILI) Results.*** Within 45 days of receipt of this Order, Respondent must conduct a review of the September 4, 2024, ILI results of the *Affected Segment*. In its review, Respondent must also re-evaluate all ILI results from the past 10 calendar years, including a review of the ILI vendor's raw data and analysis. Respondent must determine whether any features were present in the failed pipe joints from the Accident and any other pipe removed. Respondent must also determine if any features with similar characteristics are present elsewhere on the *Affected Segment*. Respondent must submit documentation of this ILI review to the Director no later than when the RCFA is required to be submitted (120 days after issuance of the Order) under Item 5 above as follows:
 - a. List all ILI tool runs, tool types, and the calendar years of the tool runs.
 - b. List, describe (type, size, wall loss, etc.), and identify the specific location of all ILI features present in the failed joint and other pipe removed.
 - c. List, describe (type, size, wall loss, etc.), and identify the specific location of all ILI features with similar characteristics present elsewhere on the *Affected Segment*.
 - d. Explain the process used to review the ILI results and the results of the reevaluation.
8. ***CAO Documentation Report (CDR).*** Respondent must create and revise, as necessary, a CAO Documentation Report (CDR). When Respondent has concluded all the items in this Order it will submit the final CDR in its entirety to the Director. This will allow the Director to complete a thorough review of all actions taken by Respondent with regards to this Order prior to approving the closure of this Order. The intent is for the CDR to summarize all activities and documentation associated with this Order in one document.
 - a. The Director may approve the CDR incrementally without approving the entire CDR.
 - b. Once approved by the Director, the CDR will be incorporated by reference into this Order.
 - c. The CDR must include, but is not necessarily limited to, the following:
 - i. Table of Contents;
 - ii. Summary of the Accident and the response activities;
 - iii. Summary of pipe data, material properties and all prior assessments of the *Affected Segment*;
 - iv. Summary of all tests, inspections, assessments, evaluations, and analysis required by the Order;
 - v. Summary of the mechanical and metallurgical testing as required by the Order;

- vi. Summary of the RCFA with all root causes as required by the Order;
- vii. Documentation of all actions taken by Respondent to implement the RWP, the results of those actions, and the inspection and repair criteria used;
- viii. Documentation of any revisions to the RWP including those 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;
- ix. Lessons learned while completing this Order;
- x. A path forward describing specific actions Respondent will take on its entire pipeline system as a result of the lessons learned from work on this Order; and
- xi. Appendices (if required).

Other Requirements:

9. **Approvals.** 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 shall proceed to 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.
10. **Extensions of Time.** 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.
11. **Reporting.** Respondent must submit quarterly 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 quarterly report is due on October 31, 2024. The Director may change the interval for the submission of these reports.
12. **Documentation of Costs.** It is requested but not required that Respondent maintain documentation of the costs associated with implementation of this CAO. 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.

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), along with the complete original document you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and 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. 1-2024-055-CAO” and for each document you submit, please provide a copy in electronic format whenever possible. The actions required by this Order are in addition to and do not waive any requirements that apply to Respondent’s pipeline system under 49 C.F.R. Parts 190 through 199, under any other order issued to Respondent under authority of 49 U.S.C. Chapter 601, or under any other provision of federal or state law.

Respondent may appeal in writing 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 Order are effective upon service in accordance with 49 C.F.R. § 190.5.

ALAN KRAMER MAYBERRY
Digitally signed by ALAN KRAMER MAYBERRY
Date: 2024.09.13 08:34:26 -04'00'

Alan K. Mayberry
Associate Administrator
for Pipeline Safety

September 13, 2024

Date Issued