



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

1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

August 3, 2026

**VIA EMAIL TO: lori.knutson@bp.com; chris.vodicka@bp.com; jim.bruen@bp.com;
james.fraleyjr@bp.com**

Lori Knutson
Vice President
AMOCO Oil Co.
501 Westlake Park Boulevard
Houston, Texas 60606

CPF 3-2026-023-CAO

Dear Ms. Knutson:

Enclosed please find a Corrective Action Order (CAO or Order) issued by the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS). The CAO requires Amoco Oil Company (Amoco) to take certain corrective actions with respect to the pipeline failure that occurred on July 29, 2026, on the 12-inch Rouge Pipeline that transports refined petroleum products from Whiting Refinery in East Chicago, Indiana, to River Rouge, Michigan.

Service of the CAO by email is effective upon the date of transmission and acknowledgment of receipt as provided under 49 CFR § 190.5. The terms and conditions of this Order are effective upon completion of service.

Sincerely,

Keith Coyle
General Counsel
Pipeline and Hazardous Materials Safety
Administration

Enclosure: CAO

cc: AJ McKean, Director, Central Region, Office of Pipeline Safety, PHMSA
 Ryan McClure, Attorney Advisor, PHMSA, ryan.mcclure@dot.gov
 Chris Vodicka, Vice President, Amoco, chris.vodicka@bp.com
 Jim Bruen, DOT Compliance Lead, Amoco, jim.bruen@bp.com
 James Fraley, Amoco, James.FraleyJr@bp.com

CONFIRMATION OF RECEIPT REQUESTED

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

In the Matter of	)	
	)	
Amoco Oil Company,	)	CPF No. 3-2026-023-CAO
	)	
Respondent	)	
	)	

CORRECTIVE ACTION ORDER

Background and Purpose

The Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), is issuing this Corrective Action Order (CAO or Order) pursuant to the authority provided in 49 U.S.C. § 60112. The CAO requires Amoco Oil Company (Amoco or Respondent), a BP subsidiary, to take certain necessary corrective actions to protect the public, property, and the environment from the potential hazards associated with the continued operation of the Rouge Pipeline. The Rouge Pipeline is a 12-inch pipeline that transports refined petroleum products from Whiting Refinery in East Chicago, Indiana, to River Rouge, Michigan.

On July 29, 2026, Amoco reported to the National Response Center a suspected leak on its Rouge Pipeline near the BP Whiting Refinery in East Chicago, Indiana, after discovering a pool of diesel fuel directly above the pipeline (hereinafter the Failure). The Failure resulted in a three-foot diameter pool of diesel directly above the pipeline. At this location, the pipeline runs between two railroad tracks. Amoco isolated the segment and dispatched personnel to excavate and expose the pipeline. Respondent found the source of the leak on its pipeline August 2, 2026.

Pursuant to 49 U.S.C. § 60117, PHMSA has initiated an investigation of the Failure. The preliminary findings of PHMSA's ongoing investigation are as follows:

- The Rouge Pipeline is a 12-inch, 0.344-inch wt, seamless, X42 grade, coal tar coated, 1953 vintage interstate pipeline. In certain locations, the pipeline is encased in concrete. Amoco does not know the manufacturer at this time. In the area of the Failure, the pipeline runs between two railroad tracks and then has a bend of approximately 90 degrees where it crosses under the west track owned by the Indiana Harbor Belt Railroad (IHBR). This crossing is a cased pipeline. The other track is owned by the Canadian National Railroad and was inactive at the time of the accident. The pipeline does not cross the Canadian National Railroad.

- On July 29, 2026, a railroad worker reported a diesel odor near the intersection of Canal Street and Dock Street in East Chicago, Indiana.
- After receiving the report, Amoco initiated an investigation. Amoco personnel discovered a three-foot diameter pool of diesel directly above the Rouge Pipeline. Amoco isolated a three-mile long section of the pipeline to allow its personnel to excavate and expose the pipeline.
- Amoco notified the National Response Center (NRC 1469300) on July 29, 2026, at 6:38 pm.
- The maximum operating pressure (MOP) of the pipeline is 1439 psig and the actual operating pressure was 1175 psig at the time the Failure was discovered. As of August 2, 2026, the pipeline pressure is 6.2 psig as a result of product in the line.
- A separate pipeline operated by Linde that transports nitrogen is located beneath the Rouge Pipeline.
- Rail traffic on the active IHBR track was stopped until personnel could be dispatched to ensure safe passage of trains by the excavation site. Restricted rail traffic has resumed although pipeline repair activities may further restrict or stop rail traffic.
- The Failure occurred in a largely industrial area east of a PHMSA-regulated breakout tank facility owned by Buckeye and north of a residential neighborhood. No property damage or evacuations were reported beyond the immediate location of the Failure.
- On August 1, 2026, excavators unearthed the 90-degree pipeline bend. The exposed pipeline has 16 clocksprings (i.e., composite repair wraps) that were installed in 2012. Amoco installed the clocksprings to remediate corrosion identified during an in-line inspection.
- During the excavation, heavy rain impeded the initial determination of the leak location. As of August 2, 2026, Amoco believes it found the source of the leak along the bend that was repaired with clocksprings in 2012.
- The upstream pipeline extending north of the bend is surrounded by concrete for buoyancy control.
- PHMSA dispatched an accident investigator on July 30, 2026. The investigator arrived on-site on July 31, 2026. PHMSA's investigation is ongoing.

Determination of Necessity for Corrective Action Order and Right to Hearing

Section 60112 of title 49, United States Code, 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 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 is 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 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) any other factors PHMSA may consider as appropriate.

After evaluating the foregoing preliminary findings of fact, and having considered the characteristics of the pipeline, including the number of repairs made to the pipe at this location; the nature of the Failure, which appears to have originated along the pipeline bend previously repaired with composite repair wraps; the hazardous nature of the material transported (diesel fuel presents fire, health and environmental hazards); the location of the Failure near industrial and residential areas, train infrastructure, and other pipeline infrastructure; and the existing and potential additional impacts to life, property, or the environment; it is hereby determined that continued operation of the Affected Segment of the Rouge Pipeline, 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, 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 completion of service.

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, PHMSA, OPS Central Region. If a hearing is requested, it will be held in accordance with 49 CFR § 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 an amended 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.

Corrective Measures

Definitions

Affected Segment – The “Affected Segment” means the approximately 70-mile pipeline segment between Whiting Pump Station and South Bend Pump Station on the Rouge Pipeline.

Isolated Segment – The “Isolated Segment” means the approximately 9,150-foot pipeline segment from Whiting Pump Station to Gate 23 on the Rouge Pipeline. The Isolated Section has 8,354 feet of concrete coated pipe out of the total 9,150 feet of pipeline in this section.

Failure – The “Failure” means the leak reported on July 29, 2026, near the intersection of Canal Street and Dock Street in East Chicago, Indiana.

Director – The “Director” means the Director, PHMSA, OPS Central Region.

1. **Shut Down.** Amoco must not operate the Isolated Segment until authorized to do so by the Director.
2. **Operating Pressure Restriction.** Amoco 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 Failure.
 - a. This pressure restriction is to 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.
 - b. Within 10 days of receipt of this Order, Amoco must provide the Director the actual operating pressures of each pump/compressor station and each main line pressure regulating 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, Amoco must take into account any in-line inspection (ILI) features or anomalies present in the Affected Segment to provide for continued safe operation while further corrective actions are completed.
 - e. Amoco must review the pressure restriction monthly by analyzing the operating pressure data. Amoco must take into account any in-line inspection (ILI) features or anomalies present in the Affected Segment and immediately reduce the operating pressure to maintain the safe operations of the Affected Segment, if warranted by the monthly review. Amoco must submit the results of the monthly review to the Director. The results must include, at a minimum, the current discharge set-points (including any additional pressure reductions), and any pressure exceedance at discharge set-points.
3. **Restart Plan.** Prior to resuming operation of the Isolated Segment, Amoco must develop and submit a written Restart Plan to the Director for prior approval.
 - a. The Director may approve the Restart Plan incrementally without approving the entire plan but the Isolated Segment cannot resume operation until the Restart Plan is approved in its entirety.
 - b. Once approved by the Director, the Restart Plan will be incorporated by reference into this Order.
 - c. The Restart Plan must provide for adequate ground patrolling of the Isolated Segment during the restart process and must include incremental pressure increases during start up, with each increment to be held for at least 2 hours.

- d. The Restart Plan must specify a day-light restart and include advance communications with local emergency response officials.
 - e. The Restart Plan must provide for a review of the Isolated Segment for conditions similar to those of the Failure including a review of construction, operating and maintenance (O&M), and integrity management records such as in-line inspection (ILI) results, hydrostatic tests, root cause failure analysis of prior failures, aerial and ground patrols, corrosion, cathodic protection, excavations, and pipe replacements. Amoco must address any findings that require remedial measures to be implemented prior to restart.
 - f. The Restart Plan must also include documentation of the completion of all mandated actions, and a management of change plan to ensure that all procedural modifications are incorporated into Amoco's operations and maintenance procedures manual.
4. **Return to Service.** After the Director approves the Restart Plan, Amoco may return the Isolated Segment to service but the operating pressure must not exceed eighty percent (80%) of the actual operating pressure in effect immediately prior to the Failure on July 29, 2026 in accordance with Item 2 above.
 5. **Removal of Pressure Restriction.** The Director may allow the removal or modification of the pressure restriction upon a written request from Amoco demonstrating 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.
 6. **Temporary Modification of Pressure Restrictions.** The Director may allow the temporary removal or modification of the pressure restrictions upon a written request from Amoco 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. **Mechanical and Metallurgical Testing.** Within 45 days of receipt of this Order, Amoco must complete mechanical and metallurgical testing and failure analysis of the failed pipe, including an analysis of soil samples and any foreign materials, and submit the results to the Director for review. Amoco must submit the completed final report of this testing and analysis to the Director for review and approval. Amoco must ensure that all reports, whether draft or final, are made available in their entirety to the Director at the same time they are made available to Amoco. Soil analysis and mechanical and metallurgical testing must be conducted by an independent third-party approved by the Director prior to commencing testing 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 soil analysis and 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 Amoco.
8. **Root Cause Failure Analysis.** Within 90 days following receipt of this Order, Amoco must complete a root cause failure analysis (RCFA) and submit a final report of this RCFA to the Director for review and approval. No later than 30 days following receipt of this Order, Amoco must provide the scope and protocol of the RCFA to the Director for review and approval. The RCFA must be conducted by an independent third-party, different from the independent third-party performing the mechanical and metallurgical testing required in paragraph 7 above, approved by the Director prior to commencing the analysis, and must document the decision-making process and all factors contributing to the failure. Amoco must direct the third-party to engage in once-a-week calls with PHMSA to provide updates as to the progress of the RCFA. These calls shall be done virtually and continue until the RCFA has been submitted to the Director. Amoco must ensure that all reports, whether draft or final, are made available in their entirety to the Director at the same time they are made available to Amoco. The final report must include findings, and any lessons learned and whether the findings and any lessons learned are applicable to other locations within Amoco's pipeline system.
9. **Records Verification.** As recommended in PHMSA Advisory Bulletin 2012-06, Amoco must verify the records for the Affected Segment to confirm the maximum operating pressure. Amoco must submit documentation of this record verification to the Director within 15 days of receipt of this Order.
10. **Remedial Work Plan (RWP).**
- a. Within 60 days of approval of the RCFA required above, Amoco must submit a Remedial Work Plan (RWP) to the Director for approval.
 - 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 Amoco will use to verify the integrity of the Affected Segment. It must address all known or suspected factors and causes of the Failure. Amoco should consider both the risk of another failure and the consequence 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 Failure.

- 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. Pre-existing operational data includes, but is not limited to, 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 Failure are likely to exist elsewhere on the Affected Segment. Conduct additional field tests, inspections, assessments, and/or evaluations to determine whether, and to what extent, the conditions associated with the Failure 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 specify the use of one or more of the following:
 - 1) Inline inspection (ILI) tools that are technically appropriate for assessing the pipeline system based on the cause of the Failure and that can reliably detect and identify anomalies,
 - 2) Hydrostatic pressure testing,
 - 3) Corrosion control methods including cathodic protection and coating evaluations, close-interval surveys, evaluation of stray current, and stress corrosion cracking and selective seam corrosion surveys, if applicable,
 - 4) Other tests, inspections, assessments, and evaluations appropriate for the Failure causes.

Note: Amoco may use the results of previous tests, inspections, assessments, and evaluations if approved by the Director, provided the results of the tests, inspections, assessments, and evaluations are analyzed with regard to the factors known or suspected to have caused the Failure.

- v. Describe the inspection and repair criteria Amoco will use to prioritize, excavate, evaluate, and repair anomalies, imperfections, and other identified integrity threats, including those related to processes applied per (e)(iv) above. Include a description of how any defects will be graded and a schedule for repairs or replacement.
- vi. Based on the known history and condition of the Affected Segment, describe the methods Amoco will use to repair, replace, or take other corrective measures to remediate the conditions associated with the Failure

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)(v) above.

- vii. Incorporate findings and lessons learned in response to the Failure in all related programs and procedures to ensure the ongoing safe operation of the Affected Segment considering the results of the analyses, inspections, and evaluations resulting from actions taken in response to this Order.
- f. Include a proposed schedule for completion of the RWP.
- g. Amoco 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. Amoco must submit any plan revisions to the Director for prior approval. The Director may approve plan revisions incrementally. Any and 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 (CDR).
- h. Amoco must implement the RWP as it is approved by the Director, including any revisions to the plan.

11. CAO Documentation Report (CDR). Amoco must create and revise, as necessary, a CAO Documentation Report (CDR). When Amoco 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 Amoco 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 not be limited to:
 - i. Table of Contents;
 - ii. Summary of the pipeline Failure, and the response activities;
 - iii. Summary of pipe data and 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 Amoco 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 Amoco will take on its entire pipeline system as a result of the lessons learned from work on this Order; and
 - xi. Appendices (if required).
12. **Reporting.** Amoco 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 November 1, 2026, covering the period through the date the first quarterly report is submitted. The Director may change the interval for the submission of these reports.
13. **Documentation of the Costs.** It is requested that Respondent maintain documentation of the costs associated with implementation of this CAO. Include in each quarterly 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.

Administrative Actions

14. **Approvals.** With respect to each submission under this Order that 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.
15. **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.

Be advised that all material submitted 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. 3-2026-023-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 CFR 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 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 CFR § 190.5.

Keith Coyle
Chief Counsel
Pipeline and Hazardous Materials
Safety Administration

Date Issued