



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

February 26, 2022

# VIA ELECTRONIC MAIL TO: Dax Sanders@kindermorgan.com

Mr. Dax Sanders President, Products Pipeline Kinder Morgan, Inc. 1001 Louisiana Street, Suite 1000 Houston, Texas 77002

CPF No. 5-2022-029-CAO

Dear Mr. Sanders:

Enclosed please find a Corrective Action Order (CAO) issued by the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), in the above-referenced case. It requires Products (SE) Pipe Line Corporation, a subsidiary of Kinder Morgan, Inc. (KMI), to take certain corrective actions with respect to a leak that occurred on its 26-inch hazardous liquid pipeline that failed in Lawrenceville, Georgia.

Service of the CAO by electronic transmission 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.

Thank you for your cooperation in this matter.

Sincerely,

Alan K. Mayberry Associate Administrator for Pipeline Safety

Enclosure: CAO

cc: Ms. Linda Daugherty, Deputy Associate Administrator for Field Operations, OPS

Mr. Dustin Hubbard, Director, Western Region, OPS

Mr. Jaime Hernandez, Director - Engineering: Codes and Standards, KMI

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

In the Matter of	)	
Products (SE) Pipe Line Corporation, a subsidiary of Kinder Morgan, Inc.	) ) )	CPF No. 5-2022-029-CAO
Respondent.	) ) )	

# **CORRECTIVE ACTION ORDER**

## **Purpose and Background**

This Corrective Action Order (CAO or Order) is being issued under the authority of 49 U.S.C. § 60112 to require Products (SE) Pipe Line Corporation (Respondent),<sup>1</sup> a subsidiary of Kinder Morgan, Inc., to take the necessary corrective actions to protect the public, property, and the environment from potential hazards associated with the February 22, 2022<sup>2</sup> leak on its 26-inch hazardous liquid pipeline in Lawrenceville, Georgia (Accident). The Accident is located in a suburban residential neighborhood in Gwinnett County, Georgia, a suburb of Atlanta.

According to the Gwinnett County Fire Department (GCFD), for several weeks, members of a residential neighborhood in Lawrenceville reported the odor of natural gas to the Lawrenceville Natural Gas Department (LNGD). On February 22, 2022 the LNGD received a call from a resident reporting the discovery of an unknown oil in the neighborhood. LNGD responded to the scene and notified the GCFD. At approximately 9:30am Eastern Standard Time (EST), the GCFD responded and confirmed the release of what appeared to be diesel in a storm drain coming from a nearby pipeline. At 10:34am EST, the GCFD reported the leak to the National Response Center (NRC).<sup>3</sup>

According to Respondent, at approximately 10:32am EST, the GCFD called Respondent to notify them of the potential pipeline release. Respondent, who did not receive a leak alarm or other

<sup>&</sup>lt;sup>1</sup> Respondent operates a products pipeline system consisting of approximately 3,180 miles, originating in Louisiana and terminating in Virginia, that transports a variety of product batches including motor gasoline, diesel (including biodiesel), kerosene, and commercial and military jet fuels. Kinder Morgan, Inc. website, *available at* https://www.kindermorgan.com/Operations/Products/Index (last accessed Feb. 24, 2022).

<sup>&</sup>lt;sup>2</sup> At the time of the issuance of this CAO, the exact failure date is unknown.

<sup>&</sup>lt;sup>3</sup> NRC Incident Report #1329440.

SCADA indication of a potential release from its control room, deployed personnel to the scene to begin an investigation. On February 22, 2022 at 12:51pm EST, Respondent reported the potential release to the NRC.<sup>4</sup>

Respondent has three hazardous liquid pipelines that travel through this neighborhood within the same right-of-way: (1) a 26-inch pipeline that operates in batches and carries both diesel and gasoline; (2) a 14-inch pipeline that operates in batches and carries both gasoline and jet fuel; and (3) a 10-inch abandoned pipeline. Respondent reported that the 14-inch pipeline was not flowing on February 22, 2022 but still contained product.<sup>5</sup> Respondent reported that it shut down the 26-inch pipeline at approximately 10:36am EST.

Between February 22-24, 2022, Respondent performed three excavations along the right-of-way and found product accumulated in the ditch and surrounding soils.<sup>6</sup> Respondent reported that it tested the product and determined the leak was from its 26-inch pipeline.<sup>7</sup> On February 23, 2022 at 8:00pm EST, Respondent confirmed the release to the NRC despite not locating the failure site.<sup>8</sup>

On February 25, 2022, Respondent reported that it identified the failure location on the 26-inch pipeline at MP 500.6 at the 6 o'clock position, on the underside of the pipe, located near two dents in the pipeline. Specifically, the release site is located on Line Section 6C of the 26-inch pipeline, approximately 14.5 miles downstream of the Doraville Pump Station and approximately 1 mile downstream of the Patterson Road Block Valve site.

Respondent reports that it is still determining the extent of the product migration and the amount of product released. There have been no known fires or injuries as a result of this Accident. To date, five residences have been evacuated.<sup>9</sup>

Federal, state, and local agencies responded to the scene, including the Pipeline and Hazardous Materials Safety Administration (PHMSA),<sup>10</sup> the Environmental Protection Agency (EPA) due to the general location of the Accident and its proximity to a nearby creek, the Georgia Department of Natural Resources – Environmental Protection Division and Wildlife Resources Division, the Gwinnett County Department of Water Resources and the Gwinnett County Fire Department.

<sup>&</sup>lt;sup>4</sup> NRC Incident Report # 1329448.

<sup>&</sup>lt;sup>5</sup> According to Respondent, the 14-inch pipeline was shut down on February 21, 2022 at approximately 1:55pm EST for scheduled maintenance.

<sup>&</sup>lt;sup>6</sup> Benzene levels are being discovered and monitored before performing any excavation work.

<sup>&</sup>lt;sup>7</sup> Respondent reported that it is testing the sulfur levels in the product to confirm the chemical composition of the released product is from the 26-inch pipeline.

<sup>&</sup>lt;sup>8</sup> NRC Incident Report # 1329579.

<sup>&</sup>lt;sup>9</sup> The home immediately adjacent to the failure location is currently vacant.

<sup>&</sup>lt;sup>10</sup> PHMSA is also in contact with the Department of Energy regarding supply and market impacts from this Accident.

Pursuant to 49 U.S.C. § 60117, PHMSA, Office of Pipeline Safety (OPS) initiated an onsite investigation of the Accident. The preliminary findings of PHMSA's ongoing investigation are outlined below.

## **Preliminary Findings**

- According to the GCFD, for several weeks, members of a residential neighborhood in Gwinnett County, Georgia reported the odor of natural gas in their neighborhood to the Lawrenceville Natural Gas Department. On February 22, 2022 the GCFD received a call from a resident reporting the discovery of an unknown oil in the neighborhood. At approximately 9:30am EST, the GCFD responded and confirmed the release of what appeared to be diesel in a storm drain catch basin coming from a nearby pipeline.
- At 10:30am EST, the GCFD reported the leak to the NRC and called Respondent to notify them of a potential release. Respondent did not receive a leak alarm or other SCADA indications of a potential release from its control room.
- Respondent deployed personnel to the approximate failure location and began an investigation. On February 22, 2022 at 10:30am EST, Respondent reported the potential release to the NRC.
- Respondent has three hazardous liquid pipelines that travel through this neighborhood within the same right-of-way: (1) a 26-inch pipeline that operates in batches and carries both diesel and gasoline; (2) a 14-inch pipeline that was shut down on February 21, 2022; and (3) a 10-inch abandoned pipeline. Respondent reported that it shut down the 26-inch pipeline at approximately 10:30am EST.
- On February 22-24, 2022, Respondent excavated along the right-of-way and found product in the ditch and surrounding soils. Respondent reported that it had tested the product and determined the leak was from its 26-inch pipeline, although it was unable to locate the exact failure location at that time.
- On February 23, 2022 at 8:00pm EST, Respondent confirmed the release to the NRC.
- Five households in the residential neighborhood impacted by the Accident have been evacuated due to potential disruptions and disturbances caused by Respondent's excavation activities that are occurring around-the-clock, including the use of heavy equipment that can produce loud noises.
- Clean-up operations are underway. Respondent reports that it dispatched its Oil Spill Response Organization (OSRO) contractors on February 22, 2022 at approximately 1:00pm EST. Booms have been placed along the Pew Creek as a precaution. At this

<sup>&</sup>lt;sup>11</sup> PHMSA was informed by a neighbor that residents were also smelling gasoline for several weeks.

<sup>&</sup>lt;sup>12</sup> According to Respondent, the 14-inch pipeline was scheduled to be shut down on February 21, 2022.

point, no product has entered the creek. Additionally, EPA Region IV is on site and monitoring clean up efforts.<sup>13</sup> There is also a toxicologist on site to monitor air quality and exposure to benzene.

- The failure is located on Respondent's 26-inch CNG pipeline. The CNG pipeline is approximately 667 miles of 30-inch and 26-inch diameter pipe, reducing in diameter as it passes through the Bremen, Georgia tank farm and pump station. Operating control of pumping units occurs from the Alpharetta Control Center (ACC). The release site is approximately 14.5 miles downstream of Doraville Pump Station and approximately 1 mile downstream of the Patterson Road Block Valve site (CNG-C-26-8).
- The failure location is located in a High Consequence Area (HCA) as defined in 49 C.F.R. § 195.450. Specifically, the pipeline traverses a residential area with a concentrated population. There is also a creek that runs through this residential area called Pew Creek and a nearby unnamed tributary.
- The pipeline was installed in 1968 and was manufactured by A.O. Smith. It has a 26-inch nominal diameter with 0.281-inch wall thickness. The pipeline consists of X-52 grade pipe, Electric Flash Weld (EFW), and the coating type is coal tar enamel. Vintage pipe manufactured by A.O. Smith has historically been susceptible to seam failure.
- OPS issued Alert Notices on January 28, 1988, and again on March 8, 1989, determining that pre-1970 low frequency electric resistance welded (ERW) pipe was susceptible to seam failure and informing pipeline operators of the problem. Numerous documented failures of the longitudinal seam of pre-1970 ERW pipe have been caused by the growth over time of manufacturing defects in the ERW seams. Selective corrosion of the seam and cyclic fatigue can contribute to the growth of these defects. In some cases, pipelines that had been successfully hydrostatically tested have later suffered longitudinal seam failures involving selective corrosion or cyclic fatigue, sometimes many years after the test. Various regulations issued by PHMSA since pre-1970 ERW pipe was first determined to be susceptible to seam failure have reflected the need for this threat to be addressed (see e.g., 49 C.F.R. § 195.452). EFW pipe is a type of ERW pipe and has similar history with longitudinal seam concerns and issues with hard spots.
- On January 4, 2011, after the San Bruno incident, PHMSA published Advisory Bulletin (ADB) 11-01 stressing the importance of implementing robust integrity management (IM) programs for aging pipelines. PHMSA expressed concern that some operators are not sufficiently aware of their pipeline attributes nor are they adequately or consistently assessing threats and risks as a part of their IM programs. "In particular, operators' programs fail to adequately address stress corrosion cracking, seam failure, or internal corrosion in their threat identification and risk assessments."

-

<sup>&</sup>lt;sup>13</sup> See also Incident Action Plan (Feb. 24, 2022)(on file with PHMSA) (containing additional information on soil sampling, air monitoring including vapor dispersion, and other response activities that remain ongoing).

- Respondent identified two anomalies on the pipeline (dents) near the failure location. Respondent initially reported these dents were not actionable. Respondent reports the last in-line assessment was conducted in 2020, using an MFL tool that resulted in no threats of concern or repairs.
- According to Respondent, prior to the leak, the pipeline was operating at approximately 218 psig (pounds per square inch gauge). The maximum operating pressure (MOP) of the pipeline is 809 psig.
- On February 25, 2022 PHMSA observed the installation of a temporary repair the 26-inch pipeline using a Type B Sleeve. <sup>14</sup> Additionally, on February 25, 2022, Respondent reported that it is restarted the 14-inch pipeline.
- On February 26, 2022 Respondent reported that it plans to restart the 26-inch pipeline at a reduced pressure. 15 Respondent submitted a Restart Plan to PHMSA for review and approval prior to restart.
- The root cause of the Accident remains unconfirmed at this time.

# **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 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 hazardous liquid pipeline facility is located to environmentally sensitive areas; (5) the population density and population and growth patterns of the area in which

<sup>&</sup>lt;sup>14</sup> See KMI "26CNG1 Grayland Hills B Sleeve Install Work Plan Rev. 1" (Rev. Feb. 25, 2022) (on file with PHMSA).

<sup>&</sup>lt;sup>15</sup> See KMI "CNG Grayland Hills Post Release Restart Plan" (Rev. Feb. 24, 2022) (on file with PHMSA). According to Section 9.0, controller training on the restart plan will be provided through the Management of Change (MOC) process, which according to Respondent will limit the upstream Adjusted Out Bound Line Control Set-Point to 565 psig.

the pipeline facility is located; (6) any recommendation of the National Transportation Safety Board made under another law; and (7) other factors PHMSA may considers appropriate.

After evaluating the foregoing preliminary findings of fact, and having considered the characteristics of the pipeline, including its age and manufacture, the EFW seam type, the location of the failure site in a suburban residential neighborhood, the hazardous nature of the materials (diesel and gasoline) transported, the uncertainty as to the root cause(s) of the Accident, the fact that Respondent did not receive a leak alarm or other SCADA indication of a potential release, the sensitive environmental areas in the vicinity of the pipeline including Pew Creek, the evacuations of several residents, the ongoing impacts to residents in the neighborhood, the ongoing investigation, and the risk of additional, related accidents, I find that continued operation of the pipeline 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 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, with a copy to the Director, Western 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**

#### Definition:

Affected Segment – The "Affected Segment" means Respondent's Line Section 6C of the 26-inch CNG pipeline from CNG-C-26-8, Patterson Road Block Valve to CNG-C-26-9, Tom Miller Road Block Valve, approximately 14 miles long, where the failure site is located.

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

1. **Operating Pressure Restriction.** In accordance with the terms of this Order, upon restart Respondent must maintain no less than 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 at the failure location immediately prior to the Accident.<sup>16</sup>

- 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 in accordance with the terms of this Order.
- b. Respondent must review the pressure restriction monthly by analyzing the operating pressure data, taking into account any inline inspection (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. Further, 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 may be made quarterly, in accordance with the terms of this Order.
- 2. **Records Verification**. Respondent must verify the records for the *Affected Segment* that were used to establish the MOP. Respondent must submit documentation of this record verification to the Director within 45 days of receipt of this Order.
- 3. **Review of Prior ILI Results.** Within 180 days of receipt of this Order, Respondent must conduct a review of any previous ILI results of the *Affected Segment*, including a review of the ILI vendors' raw data and analysis. Respondent must determine whether any features were present near the failure site. In addition, Respondent must 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 within 180 days of receipt of this Order 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 vicinity of the failure location.
  - 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 Pipeline*.
  - d. Explain the process used to review the ILI results and the results of the reevaluation.
- 4. *Mechanical and Metallurgical Testing*. Within 45 days of receipt of this Order, complete mechanical and metallurgical testing and failure analysis of the failed pipe, including an analysis of soil samples and any foreign materials. Complete the testing and analysis as follows:

<sup>&</sup>lt;sup>16</sup> Respondent reports that if it uses the 208 psig that was the value at the upstream pump station when Respondent started to investigate the leak on February 22, 2022, it will not be able to operate the pipeline to all downstream delivery locations. According to Respondent, at the time of the 208 psig occurrence, downstream flow was terminating at a shorter haul location. Therefore, Respondent assessed its 60-day high peak and noted it to be 707 psig. PHMSA is agreeable to the 707 psig value for purposes of this paragraph.

- 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 independent third-party 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.
- 5. Root Cause Failure Analysis (RCFA). Within 90 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/facilitated by an independent third-party 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 any lessons learned are applicable to other locations within Respondent's pipeline system.

#### 6. Remedial Work Plan (RWP).

- a. Within 90 days following receipt of this Order, Respondent 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 Respondent will use to verify the integrity of the *Affected Segment*. It must address all known or suspected factors and causes of 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, including the age and manufacture of the entire length of the *Affected Segment*.
  - 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 mechanical and metallurgical tests, 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, 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 direct current voltage gradient (DCVG)/alternating current voltage gradient (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 specify the use of one or more of the following:
  - 1) Hydrostatic pressure testing;
  - 2) Close-interval surveys;
  - 3) Cathodic protection survey;
  - 4) Coating surveys;
  - 5) Stress corrosion cracking surveys;
  - 6) Selective seam corrosion surveys; and
  - 7) Other tests, inspections, assessments, and evaluations appropriate for the failure cause(s).

Note: Respondent 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 Accident.

- 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. The RWP must 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.

- i. Respondent must submit any plan revisions to the Director for prior approval.
- ii. The Director may approve plan revisions incrementally.
- iii. 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*.
- h. Respondent must implement the RWP as it is approved by the Director, including any revisions to the plan, prior to restart.
- 7. *Emergency Response Plan and Training Review*. Within 90 days following receipt of this Order, Respondent must review and assess the effectiveness of its emergency response plan with regard to the Accident. Respondent must include in the review and assessment the on-scene response and support, coordination, notification, and communication with emergency responders and public officials. Also, Respondent must include a review and assessment of the effectiveness of its emergency training program. Respondent must amend its emergency response plan and emergency training, if necessary, to reflect the results of this review, within 30 days of completion of the review. The documentation of this Emergency Response Plan and Training Review must be available for inspection by OPS or provided to the Director, if requested.
- 8. *Public Awareness Program Review*. Within 90 days following receipt of this Order, Respondent must review and assess the effectiveness of its Public Awareness Program with regard to the failure. Respondent must amend its Public Awareness Program, if necessary, to reflect the results of this review within 30 days of completion of the review. The documentation of this Public Awareness Program Review must be available for inspection by OPS or provided to the Director, if requested.
- 9. **Leak Detection Plan**. Within 90 days of receipt of this Order, perform a review and submit to the Director for approval a written plan to improve the leak detection capability on the *Affected Segment*. The review must include a comprehensive analysis of any SCADA, leak detection, surveillance, and other monitoring systems on the *Affected Pipeline*. The written plan must include a schedule for improving the leak detection capability on the *Affected Segment* through additional instrumentation, updated hardware or software, installation of a computational pipeline monitoring system and associated software programming, additional surveillance, pipeline control staffing, ongoing leak surveys, and any other appropriate measures.
- 10. *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 regard 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 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).

#### 11. 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 restoring the pipeline to its prefailure 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.
- 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 available information, including 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.
- 12. *Leakage Survey*. Within 24 hours of returning the pipeline to service, Respondent must perform a ground leakage survey of the *Affected Segment* Right-of-Way. If Respondent identifies any leak indications, it must immediately shut down the *Affected Segment* and investigate all leak indications and remedy all leaks discovered prior to restart. Respondent must submit documentation of this survey to the Director within 48 hours of

a return to service.

# **Other Requirements:**

- 13. *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.
- 14. *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.
- 15. *Reporting.* 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 December 31, 2021. The Director may change the interval for the submission of these reports.
- 16. **Documentation of the Costs.** It is requested 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.

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. 5-2022-029-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. This Order does not preclude additional enforcement by PHMSA.

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 C.F.R. § 190.5.

LINDA GAIL DAUGHERTY Digitally signed by LINDA GAIL DAUGHERTY Date: 2022.02.26 18:16:13 -05'00'

Alan K. Mayberry Associate Administrator for Pipeline Safety

Date Issued