

OVERNIGHT EXPRESS DELIVERY

February 23, 2023

Mr. John Schlosser
President and Chief Executive Officer
Kinder Morgan Liquid Terminals LLC
1001 Louisiana Street, Suite 1000
Houston, Texas 77002

CPF 1-2023-001-NOPSO

Dear Mr. Schlosser:

Enclosed is a Notice of Proposed Safety Order (Notice) issued in the above-referenced case. The Notice proposes that you take certain measures with respect to your Wood River Terminal in Hartford, Illinois to ensure pipeline safety. Your options for responding are set forth in the Notice. Your receipt of the Notice constitutes service of that document under 49 C.F.R. § 190.5.

We look forward to a successful resolution to ensure pipeline safety. Please direct any questions on this matter to me at 609-771-7809.

Sincerely,

Robert Burrough
Director, Eastern Region
Pipeline and Hazardous Materials Safety Administration

Enclosure: Notice of Proposed Safety Order
49 C.F.R. § 190.239

Cc: Ms. Linda Daugherty, Deputy Associate Administrator for Field Operations, Office of Pipeline Safety <linda.daugherty@dot.gov>
Mr. Joshua Etzel, VP Operations and Engineering, Kinder Morgan Liquid Terminals, LLC <joshua_etzel@kindermorgan.com>

**DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
OFFICE OF PIPELINE SAFETY
EASTERN REGION
WEST TRENTON, NJ 08628**

In the Matter of

Kinder Morgan Liquid Terminals, LLC

Respondent

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CPF No. 1-2023-001-NOPSO

NOTICE OF PROPOSED SAFETY ORDER

Background and Purpose

Pursuant to Chapter 601 of title 49, United States Code, the Pipeline and Hazardous Materials Safety Administration (PHMSA) has initiated an investigation and on-site inspection of the safety of Kinder Morgan Liquid Terminals, LLC's (KMLT) Wood River Terminal in Hartford, Illinois. PHMSA initiated its investigation in response to a December 23, 2022, release of 11,694 barrels of gasoline at the Wood River Terminal. The release occurred after an above-grade pipeline segment at the Wood River Terminal ruptured. PHMSA submitted a data request to KMLT on December 28, 2022, and follow-up inquiries related to the data request on January 12, 2023, and January 17, 2023. In response to those requests, on January 20, 2023, KMLT uploaded several documents to its SharePoint site which was made available to PHMSA. However, much of the requested data, including the pipeline characteristics of the failed pipe and other pipelines at the Wood River Terminal, remain pending and/or incomplete.

As a result of the preliminary investigation, it appears that a condition or conditions exist at the Wood River Terminal that pose a pipeline integrity risk to public safety, property, or the environment. Namely, the conditions that led to the December 23, 2022, failure potentially exist throughout the facility, as KMLT has been unable to identify basic information about the characteristics of the ruptured pipeline and other similar pipeline at the facility. Pursuant to 49 U.S.C. § 60117(m), PHMSA issues this Notice of Proposed Safety Order, notifying you of the preliminary findings of the investigation, and proposing that you take measures to ensure that the public, property, and the environment are protected from the potential risk.

Preliminary Findings

- Kinder Morgan, including its subsidiary KMLT, is one of the largest independent terminal operators in the country with a network of approximately 140 terminals and associated hazardous liquid pipelines. These pipelines serve primarily to transport liquid petroleum products, including gasoline, jet fuel and a variety of distillates across the country with the majority of the assets in the mid-west and eastern states.
- The Wood River Terminal was originally owned and operated by British Petroleum (BP) before it was purchased by KMLT in 2016. During PHMSA's preliminary investigation of the December 23, 2022 failure, KMLT reported to PHMSA that KMLT did not obtain construction records regarding the Wood River Terminal from BP.
- The "Affected Facility" is the Wood River Terminal, located in Hartford, Illinois. The "Affected Facility Piping" is the PHMSA jurisdictional pipelines located within the Wood River Terminal. The "Affected Segment" is the failed 12-inch diameter pipeline, referred to by KMLT as the "short suction" line and which connects a Phillips 66 header system with the Affected Facility's jurisdictional breakout tanks.
- The Affected Facility neighbors St. Louis, Missouri, in a High Consequence Area (HCA). It is adjacent to a residential area (immediately east) in Hartford, Illinois, consisting primarily of single-family dwellings. The distance from the closest tank to a residential area is approximately 0.1 miles. Additionally, the Mississippi River is approximately 0.8 miles to the west. The area also has a high level of heavy industry and is surrounded by refineries, storage facilities, etc.
- On December 23, 2022, PHMSA's Accident Investigation Division (AID) was notified by the National Response Center (NRC) (Report No. 1355708) of a release of gasoline at the Affected Facility. The rupture point in the Affected Segment was located on an above-grade pipeline segment within the tank dike area near breakout tank number 107 (Tank 107). The NRC report indicated an estimated 1,500 gallons (35.7 barrels) of product had been released. KMLT submitted a supplemental report (Report No. 135714) on December 23, 2022, adjusting the estimated release volume to 10,000 barrels. KMLT adjusted the estimated volume again on December 24, 2022, to 11,500 barrels. KMLT later indicated via email on January 12, 2023, that the final volume released was 11,694 barrels.¹
- At the time of the release, KMLT had just taken delivery of a gasoline shipment from a Phillips 66 refinery, and the Affected Segment was static. The Affected Facility has an incoming header system which may route incoming shipments to any of the various tanks. KMLT refers to this system as "the Phillips 66 header" with respect to this event. KMLT closed the incoming valve at "the Phillips 66 header," but the Affected Segment was left open to the receiving tank (Tank 268), which subsequently drained into the dike for Tank 107 when the Affected Segment ruptured. The maximum operating pressure

¹ This change was reflected in KMLT's response to Item 31 PHMSA AID's December 28, 2022 data request.

(MOP) of the Affected Segment is 285 pounds per square inch (psi). The Affected Segment was operating at 7.6 psig² at the time of the release.

- The release began on December 23, 2022 at approximately 2:30 A.M. CST, and was not isolated from the source Tank 268 until 6:15 A.M. CST that same day. The tanks are electronically monitored by a Human Machine Interface (HMI). This HMI system provides electronic alarms to the controller responsible for managing the volume in each tank. PHMSA's preliminary investigation indicates the controller failed to recognize and act on the alarm, thereby exacerbating the released volume.
- Local weather conditions at the time of the release were -7 degrees Fahrenheit, with 30 mph west winds. The soil at this location has a high clay content.
- PHMSA's preliminary investigation identified a risk condition of a full circumference, incomplete weld penetration at the failed girth weld on the 12-inch diameter line near Tank 107 (on the Affected Segment).
- On December 28, 2022, KMLT reported to PHMSA that the company cannot verify many of the pipe characteristics for the Affected Facility Piping, such as installation date, long seam type, pipe grade, pipe manufacturer, pipe diameter, wall thickness, coating type, seam type, etc., as well as past pipeline history and records.
- The observed condition of the failed girth weld, unknown characteristics of the Affected Segment and the Affected Facility Piping, and appearance of similar vintage and construction for other pipe within the Affected Facility, give rise to concern that other welds within the Affected Facility Piping may have similar weaknesses to those observed on the Affected Segment.

Proposed Issuance of Safety Order

Section 60117(m) of Title 49, United States Code, provides for the issuance of a Safety Order, after reasonable notice and the opportunity for a hearing, requiring corrective measures, which may include physical inspection, testing, repair, or other action, as appropriate. The basis for making the determination that a pipeline facility has a condition or conditions that pose a pipeline integrity risk to public safety, property, or the environment is set forth both in the above-referenced statute and 49 C.F.R. § 190.239, a copy of which is enclosed.

The rupture at the Affected Facility resulted in a release of 11,694 barrels of gasoline. The release could have resulted in an explosion, deflagration, or fire, which may have impacted the nearby residential area, refineries, and even traffic on the Mississippi River, all of which are proximate to the Affected Facility, as noted above. After evaluating the foregoing preliminary findings of fact and considering that KMLT has been unable to provide information regarding the basic characteristics and material properties of the Affected Facility Piping including age, grade, seam type, MOP, and manufacturer; the hazardous nature of the product transported; the characteristics

² Per KMLT response to Item 13 in the December 28, 2022 AID data request.

of the geographical area where the Affected Facility is located (less than a mile away from both a residential area and a major waterway); and the likelihood that other similar defects exist within the Affected Facility as exist on the Affected Segment; it appears that the continued operation of the Affected Facility without corrective measures would pose a pipeline integrity risk to public safety, property, or the environment.

Accordingly, PHMSA issues this Notice of Proposed Safety Order to notify Respondent of the proposed issuance of a Safety Order and to propose that Respondent take measures specified herein to address the potential risk.

Proposed Corrective Measures

Pursuant to 49 U.S.C. § 60117(m) and 49 C.F.R. § 190.239, PHMSA proposes to issue to KMLT a Safety Order incorporating the following remedial requirements with respect to the affected facility piping:

1. Within 10 days of the issuance of the Safety Order, KMLT must complete third-party mechanical and metallurgical testing and failure analysis of the failed girth weld and submit the results to the Director.³ KMLT 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) Require the testing laboratory to distribute all reports whether draft or final in their entirety to the Director at the same time they are made available to KMLT.
2. Within 45 days of the issuance of the Safety Order, KMLT must submit to the Director a detailed inventory of the records for each pipeline within the Affected Facility. The inventory must include for each pipeline: pipeline characteristics, year of construction, pipeline diameter, wall thickness, grade of pipe, coating and seam type, pipeline manufacturer, percent specified minimum yield strength (SMYS), and a validated MOP. If KMLT is unable produce this information via traceable, verifiable, and complete records, KMLT must submit to the Director a plan for identifying and verifying the properties listed above in this Item. The plan must address how KMLT will acquire or create records verifying the missing information, including through field testing or other methods.
3. Within 60 days of the issuance of the Safety Order, develop, and submit to the Director for approval a written remedial work plan (Work Plan) that includes corrective measures. The Work Plan must include:

³ PHMSA is aware that KMLT has already begun this process on January 12, 2023, when PHMSA reviewed and approved the metallurgical testing protocol that is being performed by IrisNDT. Testing will include visual examinations, hardness and other measurements, non-destructive testing, fractographic examination, metallographic examination, mechanical testing, and chemical analysis.

- (A) The performance of additional field and metallurgical testing, inspections, and evaluations to determine whether and to what extent the conditions described in this Notice are present elsewhere in the Affected Facility. Make the results of the inspections, field excavations, and evaluations available to PHMSA or its representative;
 - (B) The performance of repairs or other corrective measures that fully remediate the identified risk condition(s) on the Affected Facility Piping. Include provisions for continuing long-term periodic testing and integrity verification measures to ensure the ongoing safe operation of the pipeline considering the results of the analyses, inspections, and corrective measures undertaken pursuant to the Safety Order; and
 - (C) A proposed schedule for completion of the actions required by paragraphs (A) and (B) of this Item.
- 4. KMLT must revise the Work Plan to incorporate new information obtained during the evaluations and associated remedial activities. Any such plan revisions must be submitted to the Director for prior approval.
 - 5. The Director may approve plan elements incrementally. The Work Plan shall become incorporated into the Safety Order.
 - 6. Implement the Work Plan as it is approved by the Director, including any revisions to the Work Plan.
 - 7. Submit quarterly reports to the Director that: (1) include available data and results of the testing and evaluations required by the Safety Order; and (2) describe the progress of the repairs and other remedial actions being undertaken.
 - 8. The Director may grant an extension of time for compliance with any of the terms of the Safety Order upon a written request timely submitted demonstrating good cause for an extension.
 - 9. It is requested (not mandated) that KMLT maintain documentation of the safety improvement costs associated with fulfilling this Safety Order and submit the total to Robert Burrough, Director, Eastern Region, Pipeline and Hazardous Materials Safety Administration. It is requested that these costs be reported in two categories: (1) total cost associated with preparation/revision of plans, procedures, studies, and analyses, and (2) total cost associated with replacements, additions, and other changes to pipeline infrastructure.

The actions proposed by this Notice of Proposed Safety 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. § 60101 et seq., or under any other provision of Federal or state law.

After receiving and analyzing additional data in the course of this proceeding and implementation of the Work Plan, PHMSA may identify other safety measures that need to be taken. In that event, Respondent will be notified of any proposed additional measures and, if necessary, amendments to the Work Plan or Safety Order.

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

Response to this Notice

In accordance with § 190.239, you have 30 days following receipt of this Notice to submit a written response to the official who issued the Notice. If you do not respond within 30 days, this constitutes a waiver of your right to contest this Notice and authorizes the Associate Administrator for Pipeline Safety to find facts as alleged in this Notice without further notice to you and to issue a Safety Order. In your response, you may notify that official that you intend to comply with the terms of the Notice as proposed, or you may request that an informal consultation be scheduled (you will also have the opportunity to request an administrative hearing before a Safety Order is issued). Informal consultation provides you with the opportunity to explain the circumstances associated with the risk condition(s) alleged in the notice and, as appropriate, to present a proposal for a work plan or other remedial measures, without prejudice to your position in any subsequent hearing.

If you and PHMSA agree within 30 days of informal consultation on a plan and schedule for you to address each identified risk condition, we may enter into a written consent agreement (PHMSA would then issue an administrative consent order incorporating the terms of the agreement). If a consent agreement is not reached, or if you have elected not to request informal consultation, you may request an administrative hearing in writing within 30 days following receipt of the Notice or within 10 days following the conclusion of an informal consultation that did not result in a consent agreement, as applicable. Following a hearing, if the Associate Administrator finds the facility to have a condition that poses a pipeline integrity risk to the public, property, or the environment in accordance with § 190.239, the Associate Administrator may issue a Safety Order.

Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. 552(b), 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 **1-2023-001-NOPSO** and for each document you submit, please provide a copy in electronic format whenever possible.

Robert Burrough
Director, Eastern Region, Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration

Date issued