



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue SE
Washington, DC 20590

JUL 24 2014

VIA CERTIFIED MAIL AND FAX TO: 419-421-3125

Mr. Craig O. Pierson
President
Marathon Pipe Line LLC
539 South Main Street
Findlay, Ohio 45840

CPF No. 3-2014-5005H

Dear Mr. Pierson:

Enclosed is a Corrective Action Order. It finds that continued operation of the Marathon Pipe Line (MPL) Patoka facility would be hazardous to life, property, and the environment without immediate corrective action. The Corrective Action Order requires you to take certain corrective actions to protect the public, property, and the environment in connection with the leak at the MPL Patoka Station facility that was reported to the National Response Center on June 29, 2014. Service is being made by certified mail and facsimile. Your receipt of this Corrective Action Order constitutes service of that document under 49 C.F.R. § 190.5. The terms and conditions of this Order are effective upon receipt.

We look forward to the successful resolution of the concerns arising out of this leak to ensure the safe operation of the pipeline systems. Please direct any questions on this matter to Karen Butler, Supervisor of the Accident Team, Central Region, OPS, at (816) 329-3835.

Sincerely,

Jeffrey D. Wiese
Associate Administrator
for Pipeline Safety

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

cc: Ms. Linda Daugherty, Deputy Associate Administrator for Field Operations, OPS
Mr. Randy Bishop, Regulatory and Compliance Supervisor, Marathon Pipe Line LLC

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

In the Matter of

Marathon Pipe Line LLC,

Respondent.

CPF No. 3-2014-5005H

CORRECTIVE ACTION ORDER

Purpose and Background

This Corrective Action Order (Order) is being issued, under authority of 49 U.S.C. § 60112, to Marathon Pipe Line LLC (Marathon or Respondent), the operator of the Patoka Station pipeline facility located in Marion County, Illinois. The Patoka Station pipeline facility consists of main line, breakout tanks, piping, pumps, equipment, and related support facilities. Marathon also operates multiple crude oil pump stations and tank farms throughout the PHMSA Central Region. The Marathon Patoka Station facility receives crude oil from the Roxana to Patoka, Woodpat, and Capline Patoka pipelines, stores crude oil in 12 breakout tanks, and transports crude oil on the Patoka to Martinsville, Patoka to Owensboro, and Patoka to Robinson pipelines. This Order finds that continued operation of the Patoka Station facility without corrective action would be hazardous to life, property, or the environment and requires Respondent to take immediate action to ensure the safe operation of the pipeline facility.

On June 29, 2014, Respondent reported to the National Response Center a leak at its Patoka Station near Patoka, Illinois in Marion County. Respondent estimates the volume of the product spill to be approximately 1,126 barrels of crude oil.

Pursuant to 49 U.S.C. § 60117, the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), initiated an investigation of the failure. OPS determined that the release originated from the Patoka Station facility, and the apparent cause of the leak is internal corrosion of pipe utilized in moving product in and out of Tank 1284. The preliminary findings of the investigation are as follows:

Preliminary Findings

- At approximately 04:45 AM CDT on June 29, 2014, Respondent discovered a leak at its Marathon Patoka Station facility.

- A Marathon employee was called out to respond to a high salt-water alarm the morning of June 29, 2014, and identified the leak. The employee called back to the control room and indicated that a leak was present. The control room shutdown the incoming and outgoing pipelines. Employees isolated Tank 1284 and stopped the leak.
- The leak was reported by Marathon to the National Response Center at 07:13 AM EDT on June 29, 2014 (NRC report # 1087454).
- The town of Vernon, Illinois is located approximately 1/4 mile north of the facility and the town of Patoka, Illinois is located 1-1/2 miles south of the facility.
- The leak occurred at the Marathon Patoka Station facility located in a rural area of South Central Illinois and is adjacent to Illinois State Highway 51. The facility is in an Unusually Sensitive Area (USA) associated with drinking water. However, no drinking water is known to have been impacted by the spill.
- Various state and federal agencies, including the U.S. Environmental Protection Agency, assisted with initial activities to contain the crude oil. Those activities included, but were not limited to a road closure, site assessment, and reporting.
- The spilled amount is reported to be approximately 1,126 barrels. The crude oil covered a large portion of the Marathon facility and migrated offsite to an Illinois State Highway 51 roadside ditch.
- The cause of the leak is under investigation, but appears to be two holes in piping associated with Tank 1284.
- The leak's origins are located in a section of 20" diameter, 0.375" wall thickness pipe installed in 2012. Two holes in the pipe were observed at the 6 o'clock position approximately 9 feet apart and involved more than one joint of pipe.
- Visual examination of the holes suggests internal corrosion as the apparent cause of the leaks.
- Based on PHMSA's experience with piping involved in internal corrosion failures in general, perforations of a 0.375" wall thickness pipe installed in 2012 indicate a very aggressive corrosion rate.
- In 2008, PHMSA issued an Advisory Bulletin ADB-08-08 entitled "Proper Identification of Internal Corrosion Risk." In this Advisory Bulletin, PHMSA emphasized to the regulated community its responsibilities with respect to determining the need for internal corrosion preventive and mitigative measures.
- Not including this latest leak at Patoka, since 2008 Marathon has reported to PHMSA six crude oil leaks associated with internal corrosion. These six leaks resulted in the reported spill volume of 447 barrels of crude oil.
- At PHMSA's request prior to this failure, Marathon Pipe Line, LLC had designed and committed to engage in an improvement plan for internal corrosion threat mitigation. The implementation of this improvement plan however had not resulted in the direct assessment of the area that failed in the Patoka Station.

- Marathon Pipe Line, LLC has reported a specific leak history of the following at Patoka Station:
 - 3/26/2012 Seal Failure of 1.6 barrels
 - 3/30/2011 Mixer Seal Failure of 0.15 barrels
 - 11/10/2004 Bracket weld failure of 38 barrels
 - 11/10/2004 Internal Corrosion failure of 40 barrels
 - 7/10/2003 Equipment Failure of 10 barrels
- As a result of a 2013 leak due to internal corrosion of a crude oil relief line at the Marathon Martinsville, Illinois facility, Marathon committed to conducting a system-wide analysis of the threat of internal corrosion to its facilities and was working on updating internal corrosion plans, procedures, and processes.
- MPL does have a Direct Assessment program. The failed pipe had not received a Direct Assessment survey according to the operator. One other location at the Patoka facility had a repair sleeve installed in May of 2014 (defect was reported to have been found as 48% thru wall). This repair sleeve was installed as a result of the Direct Assessment program and improvements as previously committed to PHMSA.
- The accident investigation is ongoing.

Determination of Necessity for Corrective Action Order and Right to Hearing

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

After evaluating the foregoing preliminary findings of fact, I find that the continued operation of the pipeline without corrective measures would be hazardous to life, property and the environment. Additionally, after considering the age of the failed pipe and Marathon's failure history, circumstances surrounding this leak, the proximity of the pipeline to populated areas, water bodies, drinking water resources, public roadways, and high consequence areas, the hazardous nature of the product the pipeline transports, and the ongoing investigation to determine the cause of the failure, I find that a failure to issue this Order expeditiously to require immediate corrective action would likely result in serious harm to life, property, and the environment.

Accordingly, this Corrective Action Order is issued without prior notice and opportunity for a hearing. The terms and conditions of this Order are effective upon receipt.

Within 10 days of receipt of this Order, Respondent may request a hearing, to be held as soon as practicable, by notifying the Associate Administrator for Pipeline Safety in writing, delivered personally, by mail or by fax at (202) 366-4566. The hearing will be held in Kansas City, Missouri, on a date that is mutually convenient to PHMSA and Respondent.

After receiving and analyzing additional data in the course of this investigation, PHMSA may identify other corrective measures that need to be taken. Respondent will be notified of any additional measures required and amendment of this Order will be considered. To the extent consistent with safety, Respondent will be afforded notice and an opportunity for a hearing prior to the imposition of any additional corrective measures.

Required Corrective Action

Pursuant to 49 U.S.C. § 60112, Marathon Pipe Line LLC is ordered to immediately take the following corrective actions to ensure the safe operation of the Patoka Station facilities and any other facilities determined to be susceptible to internal corrosion:

1. Within 60 days of receipt of this Order, complete 3rd party mechanical and metallurgical testing and failure analysis of the failed pipe, including analysis of soil samples, corrosion products, and any foreign materials if applicable. The testing and analysis shall be completed as follows:
 - A. Document the chain-of-custody when handling and transporting the failed pipe section and other evidence from the failure site;
 - B. Submit and utilize mechanical and metallurgical testing protocols as approved by the Director, Central Region;
 - C. Prior to commencing the mechanical and metallurgical testing, provide the Regional Director with the scheduled date, time, and location of the testing to allow a PHMSA representative to witness the testing; and
 - D. Ensure that the testing laboratory distributes all resulting reports in their entirety (including all media), whether draft or final, to the Regional Director at the same time as they are made available to Respondent.

2. Within 90 days following receipt of this order, submit an Integrity Work Plan (IWP) to the Director, Central Region, OPS for approval. The plan must provide for the verification of the integrity of the Patoka Station piping and must address all factors known or suspected in the leak of June 29, 2014, including, but not be limited to the integration of information from the following:
 - A. Complete a root cause failure analysis associated with the June 29, 2014 release and identify any contributory causes. Provide, maintain, and submit a project schedule associated with all elements of the internal root cause analysis including but not limited to:
 - i. Scoping document of the root cause failure analysis;
 - ii. Internal procedures associated with root cause failure analysis;
 - iii. Multiple methods used to determine root cause and contributory causes, and updates on each method as it progresses;
 - iv. List of contributory factors including a review of control room activities for several days prior to the failure, control room activities during the release including completed emergency response, and control room associated restart activities; and
 - v. Final summary of the root cause failure process including any internal lessons learned and if findings are applicable to other locations within the Marathon system.
 - B. Perform the integration of the results of the root cause failure analyses and other actions required by this Order, with all relevant operating data, including all historical repair information, construction, operating, maintenance, testing, metallurgical analysis or other third-party consultation information, assessment data for the facility and internal corrosion management processes and documents. Data gathering activities must include a review of the failure history of the facility (including in-service and pressure test failures) and development of a written report to be approved by the Director containing all available information regarding dates and causes of leaks and failures.
 - C. Perform additional field testing, inspections, and evaluations to determine whether and to what extent the conditions associated with this failure are present at other facilities. Include a detailed description of the criteria to be used for the evaluation and prioritization of facilities anomalies. Upon completion of testing, inspections, and evaluations provide a report for the Director's approval that summarizes all corrective actions or plans.

3. Within 90 days of receipt of this Order, review the existing leak detection system applicable to Patoka Station facility and identify leak detection enhancements that could improve the facility leak detection response. Include in this review surveillance and hazardous vapor monitoring as possible enhancement methods to help immediately identify leaks. Submit for the Director's approval, a summary report including leak detection enhancement methods for the Patoka Station facility before the facility returns to unattended status and the associated implementation schedule.
4. Within 90 days of the receipt of this Order, review the topography and water runoff patterns associated with the Patoka Station and design improvements to mitigate crude oil migration off site in the event of another facility leak at this location. Submit a schedule for implementation to the Regional Director.
5. Within 6 months of the receipt of this Order, complete an expedited API 653 inspection on Tank 1284. When performing this tank inspection, take any additional required measures as may be necessary to sufficiently address metallurgical report findings from 1A above or API 653 findings from Tank 1285 that is in a similar commodity service. Report any findings and identified proposed actions resulting from the API 653 inspection on Tank 1284 to the Regional Director within 30 days of the completed inspection.
6. Provide quarterly update written reports to the Regional Director on progress regarding all elements required in this CAO.
7. Prior to the failure, the Marathon Patoka facility was not manned 24 hours a day and this could have contributed to the large spill volume. As a condition of the previous restart of the Patoka facility, Marathon agreed to provide 24-hour continuous on-site manned patrolling. This manned patrolling activity shall continue until Marathon has determined after the execution of the approved IWP that no other Patoka Station piping is at risk of an internal corrosion failure. Provide 24 hour advance notification to the Regional Director should Patoka Station facility be returned to unmanned operations.
8. It is requested but not required that Respondent maintain documentation of the costs associated with implementation of this order. Include in each quarterly report 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.

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

With respect to each submission that under this Order requires the approval of the Director, the Director may: (a) approve, in whole or part, the submission; (b) approve the submission on specified conditions; (c) modify the submission to cure any deficiencies; (d) disapprove in whole or in part, the submission, directing that Respondent modify the submission, or (e) any combination of the above. In the event of approval, approval upon conditions, or modification by the Director, Respondent must take all actions required by the submission as approved or

modified by the Director. If the Director disapproves all or any portion of the submission, Respondent must correct all deficiencies within the time specified by the Director, and resubmit it for approval. If a resubmitted item is disapproved in whole or in part, the Director may again require Respondent to correct the deficiencies in accordance with the foregoing procedure, and the Director may otherwise proceed to enforce the terms of this Order.

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

In your correspondence on this matter, please refer to "CPF No. 3-2014-5005H" and for each document you submit, please provide a copy in electronic format whenever possible. The actions required by this Corrective Action Order are in addition to and do not waive any requirements that apply to Respondent's pipeline system under 49 C.F.R. Part 195, under any other order issued to Respondent under authority of 49 U.S.C. § 60101 et seq., or under any other provision of Federal or State law.

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

Failure to comply with this Order may result in the assessment of civil penalties and in referral to the Attorney General for appropriate relief in United States District Court pursuant to 49 U.S.C. § 60120.

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



Jeffrey D. Wiese
Associate Administrator
for Pipeline Safety

JUL 24 2014

Date Issued