

VIA ELECTRONIC MAIL TO: tom.long@energytransfer.com

October 13, 2023

Mr. Thomas E. Long
Chief Executive Officer
Energy Transfer, LP
8111 Westchester Drive
Dallas, Texas 75225

CPF 4-2023-056-NOPSO

Dear Mr. Long:

Enclosed is a Notice of Proposed Safety Order (Notice) issued by the Pipeline and Hazardous Materials Safety Administration (PHMSA) in the above-referenced case. The Notice proposes that Energy Transfer, LP, take certain measures to ensure facility safety with respect to the Mid-Valley Pipeline system that includes over 1,000 miles of crude oil pipeline originating in Longview, Texas, and terminating in Samaria, Michigan. Your options for responding are set forth in the Notice. Service of this Notice by electronic mail is deemed effective upon the date of transmission, or as otherwise provided under 49 C.F.R. § 190.5.

We look forward to a successful resolution to improve the safety and integrity of the Mid-Valley Pipeline system. Please direct any questions on this matter to me at (713) 773-7215.

Sincerely,

Bryan Lethcoe
Director, Southwest Region, Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration

Enclosures: *Notice of Proposed Safety Order*

cc: Mr. Alan K. Mayberry, Associate Administrator for Pipeline Safety, OPS, PHMSA
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**DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
OFFICE OF PIPELINE SAFETY
SOUTHWEST REGION
HOUSTON, TX 77074**

In the Matter of

**Mid-Valley Pipeline Company, LLC,
a subsidiary of Energy Transfer, LP,**

Respondent.

CPF No. 4-2023-056-NOPSO

NOTICE OF PROPOSED SAFETY ORDER

Background and Purpose:

This Notice of Proposed Safety Order (NOPSO or Notice) is being issued by the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), under the authority of 49 U.S.C. § 60117. Pursuant to § 60117, PHMSA initiated an investigation of the safety of Energy Transfer's Mid-Valley Pipeline following a series of recent failures, including the following:

- On July 14, 2023, Energy Transfer experienced a pipeline failure at its terminal facility near Oregon, Ohio, resulting in the initial reported release of approximately 6 barrels of crude oil. This was later updated to 28 barrels of crude oil and 42 barrels of an oil/water mixture. The release was spotted on the ground by facility personnel during a routine walk-around during the day. PHMSA requested additional information related to the cause of the failure, the repair plans prior to placing the facility back in service, and the inspections performed at the facility to ensure that similar conditions that could lead to a failure did not exist elsewhere in the facility. On July 16, 2023, Energy Transfer indicated the apparent cause was internal corrosion, identified other at-risk locations within the facility but did not provide any inspection results prior to placing the facility back in service. Energy Transfer indicated that the failed segment would be cut out and replaced but did not specify if the pipe would be sent for metallurgical evaluation to confirm the cause of failure. Energy Transfer did not indicate it made any improvements to its internal corrosion program or altered its periodic inspections of terminal piping.
- On July 11, 2023, Energy Transfer experienced a failure at its terminal facility near Longview, Texas, which resulted in the release of crude oil and a fire. Energy Transfer reported the release to be 2 gallons of crude oil into the secondary containment, which

subsequently caught fire and was extinguished by the fire suppression system in the facility. The apparent cause was determined by Energy Transfer to be misalignment between the pump unit and motor which resulted in excessive vibration and failure of the pump seals. The pump unit failed to shut down due to the high vibration condition as it was intended.

- On July 5, 2023, Energy Transfer experienced a failure near Cygnet, Ohio, resulting in the initial reported release of approximately 1,000 barrels of crude oil. The release quantity was later revised by the Energy Transfer to less than 5 barrels. Energy Transfer stated the initial reported release amount was incorrect due to a miscommunication between the control center and a regulatory compliance representative. Energy Transfer initially determined the original imbalance alarm, set at 200 barrels, was caused by a measurement error, and restarted the pipeline. Subsequently, their aerial patrol reported evidence of a release on the Mid-Valley right-of-way before the pipeline was shut down and the oil spill contractor dispatched to the site. The release was initially reported to have been caused by a “linear” defect. Energy Transfer did not perform a cutout of the failed pipe segment so that it could be sent for metallurgical evaluation. Energy Transfer stated in a meeting on July 6, 2023, that performing a cutout would disrupt deliveries to a refinery in the upper Midwest and likely result in shortages of gasoline. Energy Transfer installed a bolt-on sleeve and returned the pipeline to service and stated the cutout would be performed at a later, unspecified date. The property damage was approximately \$411,205.
- On March 3, 2023, Energy Transfer experienced a failure at the Karnak Pump Station on the Longview to Mayersville 20-inch pipeline segment, which resulted in the release of approximately 0.3 barrels (12 gallons) of crude oil. The release was contained on property controlled by Energy Transfer. The apparent cause was determined by Energy Transfer to be failure of the pump seals. However, the automation detected the loss of pressure and closed the suction and discharge valves on the pump station. The pump unit continued to run causing an overpressure condition and had to be shut down manually by a technician that tripped the station breaker. The property damage was approximately \$12,530.
- On January 25, 2023, Energy Transfer experienced a failure at the Mayersville Pump Station that resulted in the release of approximately 3 barrels of crude oil, which was contained on the property controlled by Energy Transfer. The apparent cause of the failure was determined by Energy Transfer to be internal corrosion. The property damage was approximately \$43,726.
- On December 23, 2022, Energy Transfer experienced a failure at the Cygnet Pump Station that resulted in the release of approximately 1,974 barrels of crude oil, a portion which migrated off property controlled by Energy Transfer. A highway adjacent to the pump station was closed by local law enforcement due to the threat to public safety. The cause of the failure was determined by metallurgical evaluation to be a hydrogen crack in a branch weld that increased to a critical size so that it could no longer contain the pipeline pressure. Energy Transfer stated that it performed visual inspections of other branch welds at the Cygnet Pump Station. Energy Transfer did not conduct any non-destructive

examinations to determine if defects existed on similar welds. The property damage was approximately \$2,306,948.

In addition to the above, the following failures have occurred on the Mid-Valley Pipeline system since 2014:

- On June 29, 2022, Energy Transfer experienced a failure on the Abbeville to Denver 22-inch segment near Henderson, TN, which resulted in the release of approximately 4,345 barrels of crude oil. The release occurred when a mowing contractor struck an exposed segment of pipeline resulting in a gouge and release of crude oil. Energy Transfer indicated that the segment had 42-inches of cover; however, the same report stated that the pipeline was exposed due to loss of cover. The release affected soil, vegetation, wildlife, and water. Energy Transfer estimated that approximately 3,300 barrels of the 4,345 barrels of crude oil released affected Horse Creek. Energy Transfer applied a bolt-on clamp and restarted the pipeline. Energy Transfer did not mention taking any additional preventative and mitigation measures. The property damage was approximately \$4,651,397.
- On June 1, 2022, Energy Transfer experienced a failure on the Haynesville to Magnolia 8-inch pipeline segment that resulted in the release of approximately 8 barrels of crude oil. The release occurred at a road crossing and was reported by a member of the public. The apparent cause of the failure was determined by Energy Transfer to be third-party damage from excavation work that occurred while a third party was performing maintenance work on a ditch adjacent to the pipeline. The pipe damage included an inward dent approximately 6-inches in length and 4-inches wide with a 1-inch puncture through the pipeline wall. The property damage was approximately \$42,565.
- On December 28, 2021, Energy Transfer experienced a failure at Lima Station (located in a High Consequence Area) that resulted in the release of approximately 5 barrels of crude oil. The apparent cause of the failure was determined by Energy Transfer to be internal corrosion. A bolt-on sleeve was installed, and the pipeline was placed back in service. The property damage was approximately \$40,860.
- On November 19, 2021, Energy Transfer experienced a failure at Lima Station (located in a High Consequence Area) that resulted in the release of approximately 1 barrel of crude oil from a 30-inch breakout tank pipeline. The release was discovered on the ground by operator personnel during a routine check of the station and was contained on property controlled by Energy Transfer. The apparent cause of the failure was determined by Energy Transfer to be failure of a bolt-on sleeve that had been installed as a previous repair for an internal corrosion release. The property damage was approximately \$23,380.

- On September 20, 2021, Energy Transfer experienced a failure at Lima Station (located in a High Consequence Area) that resulted in the release of approximately 0.3 barrels of crude oil. The release was discovered by local personnel during a routine check of the station. The apparent cause was determined by Energy Transfer to be the release of crude oil from a previously abandoned pipeline that had not been purged. The property damage was approximately \$47,050.
- On June 10, 2021, Energy Transfer experienced a failure at Lima Station (located in a High Consequence Area) that resulted in the release of approximately 17 barrels of crude oil. The release was discovered by a contractor while mowing at the station. The apparent cause of the failure was determined by Energy Transfer to be internal corrosion of a breakout tank pipeline. The property damage was approximately \$79,229.
- On March 16, 2021, Energy Transfer experienced a failure at the Longview Station that resulted in the release of approximately 0.8 barrels of crude oil from a breakout tank. The apparent cause of the failure was determined by Energy Transfer to be operator error due to overfilling the tank, resulting in a release of crude oil from the top of the tank after exceeding the maximum liquid level height. The property damage was approximately \$5,376.
- On February 22, 2021, Energy Transfer experienced a failure at the Abbeville Pump Station that resulted in the release of approximately 15 barrels of crude oil. The release was discovered on the ground near a 12-inch relief pipeline by operator personnel. The apparent cause of the failure was determined by Energy Transfer to be internal corrosion. Energy Transfer bypassed the station and continued operation of the pipeline. The failed pipe segment at the station was cut out and replaced. The property damage was approximately \$81,512.
- On December 28, 2020, Energy Transfer experienced a failure at the Samaria Station that resulted in the release of approximately 3 barrels of crude oil. The release was discovered on the ground by operator personnel performing a routine station check. The apparent cause of the failure was determined by Energy Transfer to be internal corrosion of a 12-inch pipeline flange weld. The weld was cut out and replaced. The property damage was approximately \$48,782.
- On May 29, 2019, Energy Transfer experienced a failure at Lima Station (located in a High Consequence Area) that resulted in the release of approximately 0.2 barrels of crude oil. Energy Transfer stated the apparent cause of the release was residual product on the inside of the tank shell mixed with water on the floating roof that was released when the external floating roof drains were opened. The property damage was approximately \$7,052.

- On March 22, 2019, Energy Transfer experienced a failure at Hebron Station, KY, (located in a High Consequence Area) which resulted in the release of 0.24 barrels of crude oil. The apparent cause of the failure was determined by Energy Transfer to be operator error when a valve was left partially open during a pigging operation. The property damage was approximately \$1,030.
- On March 18, 2019, Energy Transfer experienced a failure at Longview Station (located in a High Consequence Area) that resulted in the release of approximately 10 barrels of crude oil. The apparent cause of the failure was determined by Energy Transfer to be a pinhole leak in a breakout tank pipeline cause by internal corrosion. The failed pipe segment at the station was cut out and replaced. The property damage was approximately \$15,719.
- On February 1, 2017, Energy Transfer experienced a failure at Mayersville Pump Station that resulted in the release of approximately 0.24 barrels of crude oil. The apparent cause of the failure was determined by Energy Transfer to be a faulty liquid level switch that led to crude oil backing up into the scraper trap containment basin. The property damage was approximately \$1,000.
- On January 11, 2017, Energy Transfer experienced a failure at Lima Pump Station (located in a High Consequence Area) that resulted in the release of approximately 2 barrels of crude oil. The release was discovered on the ground near a pump unit by operator personnel. The apparent cause of the failure was determined by Energy Transfer to be failure of a bolt on the pump shaft. The bolt had been replaced during previous maintenance with one that did not meet the manufacturer's specifications. The property damage was approximately \$45,000.
- On December 19, 2016, Energy Transfer experienced a failure at Spearsville Pump Station that resulted in the release of approximately 0.12 barrels of crude oil. The apparent cause of the failure was determined by Energy Transfer to be the unexpected start of a pump unit with the intake and discharge valves closed. The pump unit overheated the seals leading to a release of commodity. Energy Transfer noted that the fire suppression system activated, meaning the released commodity had ignited. The property damage was approximately \$328,857.
- On August 9, 2016, Energy Transfer experienced a failure at Lima Pump Station (located in a High Consequence Area) that resulted in the release of approximately 2 barrels of crude oil. The apparent cause of the failure was determined by Energy Transfer to be internal corrosion on a 16-inch breakout tank pipeline. Energy Transfer installed a bolt-on sleeve and returned the pipeline to service. The property damage was approximately \$29,040.

- On June 1, 2016, Energy Transfer experienced a failure at Cygnet Pump Station (located in a High Consequence Area) that resulted in the release of approximately 2 barrels of crude oil. The apparent cause of the failure was determined by Energy Transfer to be operator error. The liquid level in Tank 83 was lowered so that the floating roof contacted the tank mixer impeller and caused the mixer seal to fail resulting in the release. The tank mixer was removed, and a blind manway cover installed. The property damage was approximately \$4,200.
- On February 3, 2016, Energy Transfer experienced a failure at Lima Station (located in a High Consequence Area) that resulted in the release of approximately 1.2 barrels (50 gallons) of crude oil. The apparent cause of the failure was determined by Energy Transfer to be a leak in the valve stem packing on a partially buried 16-inch valve that isolated dead-leg piping. The property damage was approximately \$15,000.
- On January 8, 2016, Energy Transfer experienced a failure at Hebron Station (located in a High Consequence Area) that resulted in the release of approximately 10 barrels of crude oil. The apparent cause of the failure was determined by Energy Transfer to be internal corrosion in the sump pump piping. The property damage was approximately \$43,800.
- On January 9, 2015, Energy Transfer experienced a failure at Lima Station (located in a High Consequence Area) that resulted in the release of approximately 100 barrels of crude oil. The apparent cause of the failure was determined by Energy Transfer to be a cracked fitting on the pump discharge valve. The property damage was approximately \$45,946.
- On October 13, 2014, Energy Transfer experienced a pipeline failure near Mooringsport, LA, which resulted in the release of approximately 4,509 barrels of crude oil in a High Consequence Area that affected soil, vegetation, and surface water. The apparent cause of the failure was determined by Energy Transfer to be stress corrosion cracking. The property damage was approximately \$11,702,787.
- On April 18, 2014, Energy Transfer experienced a failure at Longview Station (located in a High Consequence Area) that resulted in the release of approximately 3 barrels of crude oil. The apparent cause of the failure was determined by Energy Transfer to be a failed pump seal. The property damage was approximately \$4,501.
- On April 4, 2014, Energy Transfer experienced a failure at Longview Station (located in a High Consequence Area) that resulted in the release of approximately 1 barrel of crude oil. The apparent cause of the failure was determined by Energy Transfer to be a failed tank mixer seal. The property damage was approximately \$20,798.
- On March 22, 2014, Energy Transfer experienced a failure of the Mid-Valley Pipeline at Denver Station (located in a High Consequence Area) that resulted in the release of approximately 2 barrels of crude oil. The release was reported by the local fire department. The apparent cause was not identified by Energy Transfer, but the release was from a breakout tank pipeline. Energy Transfer drained the pipeline and installed a bolt-on clamp. The property damage was approximately \$25,000. An NRC report was filed.

- On March 17, 2014, Energy Transfer experienced a failure of the Mid-Valley Pipeline Hebron to Lima 20-inch segment near Colerain Township that resulted in the release of approximately 450 barrels of crude oil. The release was reported by local emergency responders. Metallurgical evaluation determined the cause to be near neutral stress corrosion cracking on the body of the pipe. The release was in a High Consequence Area and affected soil, vegetation, wildlife, and water. The property damage was estimated to be approximately \$7,174,939.
- On February 24, 2014, Energy Transfer experienced a failure of the Mid-Valley Pipeline at Clarksville Station that resulted in the release of approximately 1 barrel of crude oil. The release was discovered by local operating personnel. The apparent cause was not identified by Energy Transfer, but the release was from a breakout tank pipeline. Energy Transfer installed a bolt-on clamp and returned the pipeline to service. The property damage was approximately \$48,200.
- On February 20, 2014, Energy Transfer experienced a failure of the Mid-Valley Pipeline at Samaria Station that resulted in the release of approximately 1 barrel of crude oil. Energy Transfer reported that ice in the pig trap drain line prevented commodity from draining into the sump and subsequent heavy rain caused crude oil to float out of the containment basin. The property damage was approximately \$1,720.
- On February 17, 2014, Energy Transfer experienced a failure of the Mid-Valley Pipeline at Lima Station (located in a High Consequence Area) that resulted in the release of less than 1 barrel of crude oil. The release was discovered by local operating personnel. The apparent cause of the failure was determined to Energy Transfer to be a crack in a fitting on the small diameter piping around the pump discharge valve. Energy Transfer replaced the cracked fitting but provided no additional information as to the cause. The property damage was approximately \$5,136.

Additionally, there have been recent public complaints expressing concerns about the safety of the Mid-Valley Pipeline. PHMSA's investigation of these complaints have determined the following:

- An encroachment involving a temporary building was found on the Mid-Valley Pipeline right-of-way in Cecelia, KY. Energy Transfer stated that an agreement had been made with the landowner to allow the building to remain on the pipeline right-of-way. PHMSA asked to review this agreement to verify that there were restrictions on what could be stored in the building and that Energy Transfer could move or demolish the building should it be required for maintenance or emergency response. Energy Transfer declined to provide the agreement.

- An exposed pipe in a stream crossing was found near Collinsville, OH, with large stumps and tree limbs present in the channel. PHMSA issued an Advisory Bulletin on April 9, 2015, (ADB-2015-01, 80 Fed. Reg. 19114), which provided notification to pipeline operators about the need for operators to take actions to ensure the integrity of pipelines in the event of flooding, river scour, and river channel migration that may result in additional stresses imposed on the pipe by undermining the underlying support soils, exposing the pipeline to lateral water forces, and impact from waterborne debris. This pipeline appears to be at risk for these threats. The pipeline coating also appears to be in poor condition resulting in diminished protection from atmospheric corrosion. No apparent actions have been taken by Energy Transfer to mitigate the threats presented by the exposed pipe.
- The condition of the right-of-way (ROW) near the Collinsville, OH, stream crossing exposure obscured the ROW in a manner that would limit the effectiveness of patrolling and potentially obscure a release. There was a notable absence of pipeline markers to identify the location of the pipeline. The pipeline also crosses under railroad tracks in the same area with no casing vents present that could be used to detect leaks in the carrier pipe. In response to PHMSA questions about this crossing, Energy Transfer confirmed that the casing is shorted which does not meet the requirements of 49 C.F.R. § 195.575 for electrical isolation.

As a result of numerous failures, existing integrity concerns, and PHMSA's preliminary investigation, it appears that conditions exist on the Mid-Valley Pipeline that pose a pipeline integrity risk to public safety, property, or the environment. 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 risks.

Preliminary Findings:

The preliminary findings of PHMSA's ongoing investigation are as follows:

- The Mid-Valley Pipeline consists of approximately 1,048 miles of primarily 20- and 22-inch mainline pipeline that originates near Longview, TX, and terminates near Samaria, MI. The pipeline system includes 14 pump stations and 41 breakout tanks. It was constructed in the 1950s and is designed to deliver approximately 240,000 barrels of crude oil per day to refineries in the upper Midwest.
- The pipeline traverses near or through several high population areas, other populated areas, unusually sensitive areas, lakes, and crosses several rivers and streams, highways, roads, and railroads. Many of the pump stations and terminals are located in High Consequence Areas.
- The Mid-Valley Pipeline has experienced at least 34 failures since 2014 from various causes, including internal corrosion, pump failures, third-party damage, faulty equipment, hydrogen cracking, stress corrosion cracking, pipeline exposures, failed repairs, operator errors, and unidentified causes. Some of these failures do not appear to have had a

complete investigation as to the causes and contributing factors and it is unclear to PHMSA the actions taken by the Energy Transfer to determine if similar integrity threats may exist elsewhere on the Mid-Valley Pipeline system.

- After the July 5, 2023, failure, PHMSA requested Energy Transfer remove the failed section of pipe and send it to a metallurgical laboratory for evaluation and determination of the cause of the failure. Instead, Energy Transfer installed a temporary bolt-on sleeve and stated that the cutout and permanent repair would be scheduled at a later date. Consequently, there was no investigation of the cause of the failure and no determination by Energy Transfer of the causes and contributing factors.
- The apparent cause of several failures was determined by Energy Transfer to be internal corrosion. Energy Transfer stated it has an internal corrosion monitoring program and, in some cases, injects chemicals to inhibit internal corrosion. However, multiple failures related to internal corrosion have sometimes occurred at the same locations. PHMSA was unable to determine if the failures were thoroughly investigated, the specific causes determined, and preventative and mitigative measures implemented.
- For several failures (August 9, 2016; December 28, 2021; June 29, 2022; July 5, 2023), Energy Transfer installed temporary bolt-on sleeves. Energy Transfer did not immediately cut out the failed sections and conduct metallurgical analyses on each of the failures to determine or confirm the cause of the failure.
- After the July 14, 2023, failure at the Mid-Valley terminal near Oregon, OH, PHMSA requested that Energy Transfer perform additional inspections to determine if similar integrity threats existed elsewhere in the terminal. Based on the Energy Transfer's response, PHMSA was unable to determine if Energy Transfer conducted inspections to determine if additional similar integrity threats existed at the terminal or took measures to prevent additional failures.
- Lima Station, a pump station located in a High Consequence Area, experienced at least eight (8) failures since 2014. Three of the failures were apparently caused by internal corrosion, while other failures were caused by equipment failure, failure to purge an abandoned pipeline, and a failed temporary repair.
- Energy Transfer has an exposed pipe in a stream crossing near Collinsville, OH, with large stumps and tree limbs present in the channel. There appears to be a threat to the exposed pipeline segment due to debris carried by the stream, particularly during high water. The need to evaluate these types of threats was the subject of a PHMSA Advisory Bulletin (ADB-2015-01, 80 Fed. Reg. 19114) reminding pipeline operators about the need to evaluate these threats and take the appropriate preventative and mitigative measures as required by the underlying regulations. PHMSA also observed damage to the coating on the exposed pipeline segment that could result in additional issues related to atmospheric corrosion.

- There were multiple instances of malfunction of control equipment such as an un-commanded pump station start, a pump starts with the suction and discharge valves closed, and a pump that would not shut down on command. In one instance, it was necessary for the technician to use the main station breaker to finally shut the pump unit down. These issues led to releases due to secondary effects such as pump seal failure. On at least one occasion, the released commodity ignited and activated the pump station fire suppression system. There were apparent flaws in the control equipment that were not fully investigated and corrected.
- There were instances of equipment failure that resulted in releases, such as a faulty liquid level switch that resulted in a sump overflow, an incorrect bolt being used on a pump shaft repair which subsequently failed, a valve packing leak, a cracked fitting, misalignment of a pump unit that resulted in vibration and failure of the seals, and a failed pump mixer seal.
- There have been releases caused by operator error such as overfilling a breakout tank, allowing water to accumulate on the roof of a breakout tank allowing commodity to mix with the water which was released when the roof drains were opened, and lowering the liquid level in a tank to the point where the roof contacted the tank mixer and caused the seals to fail.
- There have been releases due to time dependent threats such as external corrosion, internal corrosion, stress corrosion cracking, and hydrogen cracking. It is unclear what preventative and mitigative measures the Energy Transfer has taken to prevent additional similar failures.
- Numerous failures have been discovered by members of the public and or contractors. Other failures were discovered by Energy Transfer personnel during routine movements around its facilities, and not through Energy Transfer's instrumentation and control system. These trends indicate Energy Transfer's inability to self-monitor and detect failures.
- The Mid-Valley Pipeline accident history indicates there are unmitigated threats associated with internal corrosion, time dependent threats, third party damage, equipment failure, and operator error.
- During the investigation of the July 5, 2023, failure near Cygnet, OH, PHMSA noted an interrupted cathodic protection pipe-to-soil measurement that was higher than the energized measurement. This may be an indication of cathodic protection interference. Energy Transfer shares the right-of-way with Buckeye Pipeline but stated no CIS or interference studies had been performed on this pipeline segment to determine if the requirement of electrical isolation required by § 195.575 has been met. In addition, Energy Transfer has stated that the cased crossing under the railroad tracks near the Collinsville, OH stream crossing was shorted, another instance where the requirements for electrical isolation have not been met.

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 actions, 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.

After evaluating the foregoing preliminary findings of fact and considering the hazardous nature of the product, the proximity of the area in which the hazardous liquid pipeline facility is located to environmentally sensitive areas, the population density and population and growth patterns of the area in which the pipeline facility is located (HCAs), the number of failures that have occurred (many with similar and/or related causes) within the past decade, the inadequate or limited failure investigations, the absence of preventative and mitigative measures or corrective actions taken to mitigate underlying issues and improve the failure trend, the temporary repairs (bolt-on sleeves) made with no apparent investigations, the likelihood that these conditions are present or may develop in other segments of the pipeline, multiple equipment and material failures, multiple releases caused by operator error, and identified integrity issues, the continued operation of the Mid-Valley Pipeline without corrective measures poses a threat to public safety, property, and the environment.

Accordingly, PHMSA issues this Notice to notify Energy Transfer of the proposed issuance of a safety order and to propose that Energy Transfer take measures specified herein to address the potential risks identified in the Preliminary Findings and other risks that may be determined as a result of the proposed corrective measures.

Proposed Corrective Measures:

Pursuant to 49 U.S.C. § 60117(m) and 49 C.F.R. § 190.239, PHMSA proposes to issue to Energy Transfer, LP, a safety order incorporating the following remedial requirements with respect to the Mid-Valley Pipeline:

1. Within 60 days of issuance of the Order, the Energy Transfer must complete a review of all accidents, unintentional releases, and other reportable failures on the Mid-Valley Pipeline since 2014, determine root causes of each event, and make assessments about program deficiencies that cause or contribute to integrity risks. At a minimum, the review must include all the accidents and other integrity issues identified by this Order. A detailed written report of the program deficiencies that resulted in the releases and other integrity threatening conditions must be submitted to the Director, Southwest Region (Director) within 60 days of issuance of the Order.
2. Energy Transfer must complete a full review of its written Mid-Valley Pipeline Operating and Maintenance Procedures, Integrity Management Program, and Operator Qualification Program to identify deficiencies or inadequacies that cause or contribute to integrity risks and corresponding programmatic changes or actions to

aimed at eliminating integrity risks. Within 120 days of issuance of the Order, Energy Transfer must submit a written report detailing the review and findings. This review must include, but is not limited to, the following:

- a. A review of all Operating and Maintenance Procedures and associated training requirements to reduce accidents resulting from maintenance issues and operator errors. In addition, Energy Transfer must perform a complete review of Energy Transfer Qualification Program including procedures, covered tasks, training requirements, qualification and re-qualification requirements, span of control, and Abnormal Operating Conditions. Energy Transfer must complete modifications to the Mid-Valley Operating and Maintenance Procedures and Operator Qualification Program and submit a redlined version of the revised procedures showing the changes to the Director for review and approval within 120 days of issuance of the Order.
- b. A review of the Integrity Management plan, threat identification, risk determination, and preventative and mitigative measures needed to reduce the failures on the Mid-Valley Pipeline system. This review must include all accidents, specifically including but not limited to those related to depth of cover and pipeline exposures, third party damage, and corrosion. A redlined version of the revised Integrity Management Plan must be submitted to the Director for review and approval within 120 days of issuance of the Order.
- c. Inspection of all branch welds at pump stations and terminals using a combination of visual examination and at least one other form of Non-destructive Examination to determine if there are additional cracks that may result in failures similar to the Cygnet Station failure that occurred on December 23, 2022. The Inspection Plan must be submitted to the Director for review and approval within 90 days of issuance of the Order and prior to commencing the inspections. The results of the inspections including the specific locations within each pump station and terminal where the inspections were conducted must be submitted to the Director within 180 days of approval of the Inspection Plan.
- d. Visual inspection of all above ground piping and fittings to identify defects such as cracks, corrosion, and mechanical damage that require repair or replacement. A written report detailing the specific locations of the inspections and inspection results must be submitted to the Director within 120 days of issuance of the Order.
- e. A review of the pump station control logic at each pump station to determine that no unordered startups will occur, the valves are in the proper positions for the stations to start, and station shutdowns will occur properly based on certain alarm conditions. The failures at Longview, Karnak, and Spears Stations must be fully investigated to ensure that the units will properly shut down or not start without the valves in correct positions. The control logic at all stations must be

reviewed and corrected, if necessary. A detailed written report on this review, the findings, and the revisions to the control logic or circuits must be submitted to the Director within 120 days of issuance of the Order.

- f. A review of the internal corrosion program must be conducted. This includes but is not limited to the following:
 - i. Investigate and determine the specific causes of the internal corrosion failures listed above.
 - ii. Revise the internal corrosion program to include appropriate periodic inspections of piping and facilities for internal corrosion.
 - iii. Define and implement preventative measures to detect corrosion and take corresponding action.
 - iv. Implement a comprehensive monitoring program using coupons and testing of the commodity for residuals of injected chemicals to ensure the appropriate injection points and concentrations.
 - v. Implement performance measures to evaluate the effectiveness of the internal corrosion program.
 - vi. Make modifications to the internal corrosion program such as the types and locations chemical injections, number and frequency of cleaning pig runs, frequency of in-line inspections, inspections of non-piggable pipelines, and inspection of breakout tanks, sumps, and other facilities that may be subject to internal corrosion.
 - vii. Identify and eliminate dead legs where possible, and periodically operating bypass lines, lines with low flow rates, and lines with infrequent or no flow.
 - viii. Define continual improvement measures to ensure the ongoing effectiveness of the program.
 - ix. Develop a written report that at a minimum includes items (i) through (viii) of the specific causes of the internal corrosion, the written program changes, and changes made in the field locations to make the program more effective. This report must be submitted to the Director for review within 120 days of issuance of the Order.
 - x. Every 6 months, beginning 90 days from of issuance of the Order, submit reports to the Director that includes the coupon locations, coupon measurements, chemical injection sites, types, quantities, and concentrations of injected chemicals, tests, and locations for determining residual concentrations of injected chemicals. The report must include the methods, locations and results of all inspections made to determine the effects of internal corrosion, and the timing of remediation actions required to prevent failures due to internal corrosion.

- g. A review of the external corrosion program must be performed that includes the following:
 - i. Assess whether the minimum required annual survey cathodic protection potentials required by Part 195 are being met along the continuous length of the Mid-Valley Pipeline by conducting an interrupted close-interval survey. Determination of the adequacy of the cathodic protection potentials must include consideration of IR drop. The detailed results of this survey must be submitted to the Director for review within 150 days of issuance of the Order.
 - ii. Energy Transfer must assess and document the condition of the coating and identify any areas of disbondment. The detailed results of this assessment must be submitted to the Director for review within 150 days of issuance of the Order.
 - iii. Energy Transfer must identify the locations any galvanic anodes on the Mid-Valley Pipeline and must ensure the anodes are capable of being interrupted so that true polarized potentials can be measured.
 - iv. Energy Transfer must perform surveys to determine if there are areas of cathodic protection interference anywhere on the Mid-Valley Pipeline system and implement measures to mitigate the interference. Energy Transfer must identify any areas on the Mid-Valley Pipeline that do not meet the minimum spacing requirements required by Part 195 regulations. A report of these areas of interference, areas where the pipeline spacing does not meet the minimum requirements, and the work plan to mitigate the interference must be submitted to the Director for review within 150 days of issuance of the Order.
 - v. Within 150 days of issuance of the Order, Energy Transfer must submit a detailed written report of the work performed pursuant to Item 2.g. that includes the locations of the cathodic protection test stations, the energized and polarized (instant off) cathodic protection potentials, the locations of the rectifiers, the rectifier tap setting before and after any adjustments, the procedures used to determine the polarized potentials, the coating surveys, the locations of the galvanic anodes, the results of the interference study, and the work plan to remedy deficiencies.
- 3. Energy Transfer must identify the locations of all exposed pipeline segments, segments of pipeline that currently have less than 30 inches of cover, and whether these segments are in High Consequence Areas. For any segments in High Consequence Areas and could affect HCA areas, Energy Transfer must identify the current land usage for each of these areas, the risk of damage to the pipeline Energy Transfer has assigned to these segments in its Integrity Management plan, the justification for the risk assigned, and the current preventative and mitigative measures that have been implemented. Energy Transfer must also provide records showing the results of the two most recent atmospheric corrosion inspections performed for each of these exposures. This information must be submitted to the Director within 90 days of issuance of the Order.

4. For all exposed Mid-Valley Pipeline segments in or near stream crossings, Energy Transfer must identify the location of these segments, the length of the exposure, and indicate if any actions were taken to mitigate the risk of the exposed segments. Energy Transfer must also provide the threat identification and risk assessments for these stream exposures in the current Integrity Management Plan and the preventative and mitigative measures that have been implemented. This information must be submitted to the Director within 120 days of issuance of the Order.
5. Energy Transfer must identify the location, date of discovery, and details of all encroachments on the Mid-Valley Pipeline rights-of-way that includes but is not limited to buildings, poles, junk or debris, or any other items that may obscure the pipeline from patrolling activities or limit access to the pipeline during emergency response or routine maintenance activities. Energy Transfer must provide a detailed written report that includes the location and details of these encroachments, the patrolling records immediately prior to and after the encroachments were discovered, and a description of actions taken to address each encroachment within 150 days of issuance of the Order.
6. Within 120 days of issuance of the Order, Energy Transfer must provide a detailed description of its right-of-way maintenance program, the criteria used to evaluate the condition of the right-of-way, how the determination is made when right-of-way maintenance is required, the frequency of right-of-way maintenance, and a report that details the complete right-of-way maintenance schedule and when each segment was last mowed or cleared, and an explanation of the alternative patrolling measures employed when the overgrowth of vegetation on the right-of-way obscures the ground.
7. Within 120 days of issuance of the Order, Energy Transfer must provide a detailed description of its right-of-way pipeline marker program, including the placement, locations, and spacing of the pipeline markers. Energy Transfer must also provide a description of its ongoing pipeline marker inspection program to identify damaged and missing pipeline markers, and the required timing for replacement of damaged or missing pipeline markers.
8. Within 150 days of issuance of the Order, Energy Transfer must complete an inspection of the adequacy and placement of pipeline markers on the Mid-Valley Pipeline system. Areas with missing or damaged markers and areas requiring additional pipeline markers must be identified. This information, including the locations of missing or damaged pipeline markers and locations requiring additional pipeline markers needed to meet the requirements of Part 195 must be provided in writing within 150 days of issuance of the Order.
9. Energy Transfer must provide a detailed written description of the aerial patrolling performed to meet Part 195 requirements. This must include the frequency of patrolling, the actions taken when spotting activity or equipment on the Mid-Valley right-of-way, encroachments, releases, right-of-way conditions that may obscure releases or limit the effectiveness, or any other threats. Include a complete

description of how the pilot identifies the specific locations on the Mid-Valley right-of-way for the reported conditions. Also provide a description of any areas where alternative patrolling, such as foot patrolling, is used and why foot patrolling is necessary. Include a description of the inspections and maintenance of pipeline milepost markers if they are used to report the location of issues identified by patrolling. This information must be provided to the Director within 120 days of issuance of the Order.

10. Energy Transfer must complete a review of all maintenance activities performed at pump stations and terminals over the past three years to determine that the work and materials used were consistent with the manufacturer's specifications and procedures. A detailed written report of this review must be submitted to the Director within 120 days of issuance of the Order.
11. Many of the Mid-Valley releases were discovered by members of the public or Mid-Valley operating personnel during routine activities at pump stations and terminals when released commodity was visible on the ground. Energy Transfer must provide a complete written description of the routine inspections performed at these locations that are intended to identify and address issues prior to failure and why these have been ineffective in identifying preventative maintenance. This must be provided to the Director within 120 days of issuance of the Order.
12. Energy Transfer must submit a written description of the training provided to pump station and terminal operations personnel to the Director within 120 days of issuance of the Order.
13. The corrective measures may be amended by the Director to ensure public safety as required from the responses provided and results produced by Energy Transfer.
14. 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.
15. It is requested (not mandated) that Energy Transfer maintain documentation of the safety improvement costs associated with fulfilling this Safety Order and submit the total to Mr. Bryan Lethcoe, Director, Southwest 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 Energy Transfer's pipeline system under 49 C.F.R. Parts 190 through 199, under any other order issued to Energy Transfer 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, PHMSA may identify other safety measures that need to be taken. In that event, Energy Transfer will be notified of any proposed additional measures and, if necessary, amendments to the Safety Order.

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 Director. 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 conditions 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 the informal consultation on a plan and schedule for you to address each identified risk condition, the parties may enter into a written consent agreement, in which case 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 Mid-Valley Pipeline system has a condition or conditions that pose a pipeline integrity risk to the public, property, or the environment in accordance with § 190.239, the Associate Administrator may issue a final 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 4-2023-056-NOPSO** and for each document you submit, please provide a copy in electronic format whenever possible.

Bryan Lethcoe
Director, Southwest Region, Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration

Date Issued