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

1200 New Jersey Avenue, SE
Washington, DC 20590

July 14, 2023

VIA ELECTRONIC MAIL TO: gbacon@eprod.com

Mr. Graham Bacon
Executive Vice President and Chief Operating Officer
Enterprise Products Operating, LLC
1100 Louisiana Street
Houston, Texas 77002

Re: CPF No. 4-2022-062-NOPV

Dear Mr. Bacon:

Enclosed please find the Final Order issued in the above-referenced case. It withdraws one of the allegations of violation, makes other findings of violation and specifies actions that need to be taken by Enterprise Products Operating, LLC, to comply with the pipeline safety regulations. When the terms of the compliance order have been completed, as determined by the Director, Southwest Region, this enforcement action will be closed. Service of the Final Order by e-mail is effective upon the date of transmission and acknowledgement of receipt as provided under 49 C.F.R. § 190.5.

Thank you for your cooperation in this matter.

Sincerely,

ALAN KRAMER MAYBERRY
Digitally signed by ALAN KRAMER MAYBERRY
Date: 2023.07.14 10:53:39 -04'00'

Alan K. Mayberry
Associate Administrator
for Pipeline Safety

Enclosure

cc: Mr. Bryan Lethcoe, Director, Southwest Region, Office of Pipeline Safety, PHMSA
Ms. Suzie Davis, Senior Manager, Transportation Compliance, Enterprise Products Operating, LLC, smdavis@eprod.com

CONFIRMATION OF RECEIPT REQUESTED

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

In the Matter of	)	
	)	
Enterprise Products Operating, LLC,	)	**CPF No. 4-2022-062-NOPV**
	)	
Respondent.	)	

FINAL ORDER

From February 7 through May 13, 2022, pursuant to 49 U.S.C. § 60117, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), inspected Enterprise Products Operating, LLC's (Enterprise or Respondent) MAPCO SW Pipeline System in New Mexico, Texas, Oklahoma, and Kansas. The MAPCO SW system consists of 2,421 pipeline miles and operates in the following states: Kansas, Oklahoma, Texas, and New Mexico. The products transported include liquefied petroleum gas, natural gas liquid, and refined and/or petroleum products. This system includes 1,320 right-of-way miles, 9 breakout tanks, and 19 pump stations.

As a result of the inspection, the Director, Southwest Region, OPS (Director), issued to Respondent, by letter dated December 14, 2022, a Notice of Probable Violation and Proposed Compliance Order (Notice). In accordance with 49 C.F.R. § 190.207, the Notice proposed finding that Enterprise committed five violations of 49 C.F.R. Part 195 and proposed ordering Respondent take certain measures to correct the alleged violations. The Notice also included an additional two warning items pursuant to 49 C.F.R. § 190.205, which warned the operator to correct the probable violations or face possible future enforcement action

After requesting and receiving an extension of time to respond, Enterprise responded to the Notice by letter dated March 14, 2023 (Response). Respondent contested several of the allegations, offered additional information in response to the Notice, and requested that certain proposed compliance orders be withdrawn. Enterprise did not request a hearing and therefore has waived its right to one.

FINDINGS OF VIOLATION

The Notice alleged that Respondent violated 49 C.F.R. Part 195, as follows:

Item 1: The Notice alleged that Respondent violated 49 C.F.R. § 195.202, which states:

> **§ 195.202 Compliance with specifications or standards.**
> Each pipeline system must be constructed in accordance with comprehensive written specifications or standards that are consistent with the requirements of this part.

The Notice alleged that Respondent violated 49 C.F.R. § 195.202 by failing to construct each pipeline system in accordance with written specifications or standards that are consistent with the requirements of Part 195. Specifically, the Notice alleged that Enterprise failed to follow its written procedure, *Engineering Standard 8501 (STD.8501), Bolt Torquing and Flange Assembly (May 2021), Section 7.0 Material*, which states that "the minimum acceptable length of bolt shall be full nut engagement after initial tightening."[1] The Notice stated that bolts on flanges at eight locations (Ponderosa Junction, MP 8 Valve Site, Hobbs Pump Station, Conway Pump Station, Willowbrook Pump Station, Langdon Pump Station, Hutchinson Pump Station, and Coffeyville Pump Station) were observed to be either flush or recessed. At these locations, PHMSA observed bolts that failed to have the minimum acceptable length such that full nut engagement was not achieved in the nut on both ends, contrary to the operator's procedures. After the conclusion of the PHMSA inspection, Enterprise provided bolt-flange assembly records to indicate it fixed the improperly installed bolts at four of the eight locations: Ponderosa Junction, Conway Pump Station, Langdon Pump Station, and Hutchinson Pump Station.

In its Response, Enterprise did not contest the allegation of violation. It provided new bolt flange assembly records showing that it fixed the improperly installed bolts at the other four locations identified in the Notice: MP Valve 8 Site, Hobbs Pump Station, Willowbrook Pump Station, and Coffeyville Pump Station.

Accordingly, after considering all of the evidence, I find that Respondent violated 49 C.F.R. § 195.202 by failing to construct each pipeline system in accordance with written specifications or standards that are consistent with the requirements of Part 195.

Item 2: The Notice alleged that Respondent violated 49 C.F.R. § 195.262(d), which states:

> **§ 195.262 Pumping equipment.**
> (a)….
> (d) Except for offshore pipelines, pumping equipment must be installed on property that is under the control of the operator and at least 15.2 m (50ft) from the boundary of the pump station.

The Notice alleged that Respondent violated 49 C.F.R. § 195.262(d) by failing to install pumping equipment at least 15.2 meters (50 feet) from the boundary of the pump station. Specifically, the Notice alleged that Enterprise failed to install pumping equipment at least 50 feet from the boundary of the pump station at the Coffeyville Pump Station (37 feet from the boundary on

[1] Pipeline Safety Violation Report, December 14, 2022, (hereinafter "Violation Report"), at Exh. 1-1 (on file with PHMSA).

north side; 48 feet from the boundary on the south side), Bushton Pump Station (17 feet, 2 inches from the boundary on the south side; 34 feet from the boundary on the east side), and Newton Pump Station (23 feet from the boundary on the east side).[2]

In its Response, Enterprise did not contest the allegation of violation. It stated that it has or is in the process of addressing each of the pump installation concerns listed in the Notice. Respondent stated the pump at Coffeyville Pump Station was removed in March 2023. Land surveys have been completed at Newton and Bushton Pump Stations and plans are in place to relocate the fence at both locations to meet the 50 feet requirement. Once additional property is acquired at the Bushton Pump Station, Enterprise will relocate the fence to the appropriate 50 feet or more boundary.

Accordingly, after considering all of the evidence, I find that Respondent violated 49 C.F.R. § 195.262(d) by failing to install pumping equipment at least 15.2 meters (50 feet) from the boundary of the pump station

Item 4: The Notice alleged that Respondent violated 49 C.F.R. § 195.420(a), which states:

> **§ 195.420 Valve maintenance.**
> (a) Each operator shall maintain each valve that is necessary for the safe operation of its pipeline systems in good working order at all times.

The Notice alleged that Respondent violated 49 C.F.R. § 195.420(a) by failing to maintain each valve that is necessary for the safe operation of its pipeline systems in good working order at all times. Specifically, the Notice alleged that during the field inspection PHMSA observed leaking valve plugs and valve stems at the following locations: Mocane Station on the 6-inch SN 106717-4 and 10-inch SN BM200041 pipelines, milepost 5 on the 10-inch pipeline, Skellytown Station on the 8-inch pipeline, at milepost 196 on the 10-inch pipeline, Valve SN 5797 at Tulia Station, at milepost 134 on the 10-inch pipeline, and at milepost 43 on the 10-inch pipeline. Enterprise's procedures state that "when operating the valve, look for signs of leakage, stability, and valve support, tightness of bolts or connections, and return any valve to its proper position for normal operation."[3]

After the inspection, Respondent performed maintenance work and provided the records for the following valves in June 2022: milepost 134 on the 10-inch pipeline, milepost 5 on the 10-inch pipeline, Mocane Station on the 6-inch SN 106717-4 and 10-inch SN BM200041 pipelines, milepost 196 on the 10-inch pipeline, milepost 43 on the 10-inch pipeline, Skellytown Station on the 8-inch pipeline, and on Valve SN 5797 at Tulia Station.

In its Response, Enterprise did not contest the allegation of violation. It provided maintenance records for the leaking valves identified during the inspection.

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[2] Enterprise's procedures define the boundary as the area inside the fence. *See* Violation Report, at Exh. 2-1, *Mainline Pump Station Standardization Guideline*, at Section 1.2.2.

[3] Violation Report. at Exh. 4-10, at Section 5.6.3.2.

Accordingly, after considering all of the evidence, I find that Respondent violated 49 C.F.R. § 195.420(a) by failing to maintain each valve that is necessary for the safe operation of its pipeline systems in good working order at all times.

Item 6: The Notice alleged that Respondent violated 49 C.F.R. § 195.452(f)(3), which states:

> **§ 195.452 Pipeline integrity management in high consequence areas.**
> (a) ….
> (f) *What are the elements of an integrity management program?* An integrity management program begins with initial framework. An operator must continually change the program to reflect operating experience, conclusions drawn from results of the integrity assessments, and other maintenance and surveillance data, and evaluation of consequences of a failure on the high consequence area. An operator must include, at minimum, each of the following elements in its written integrity management program:
> (1) ….
> (3) An analysis that integrates all available information about the integrity of the entire pipeline and the consequences of a failure;

The Notice alleged that Respondent violated 49 C.F.R. § 195.452(f)(3) by failing to integrate all available information about the integrity of the entire pipeline. Specifically, the Notice alleged that Enterprise's risk report contained inaccurate information about the Coffeyville facility. The Notice stated PHMSA reviewed the Facility Integrity Management Program Current Risk Report (Risk Report) for the Coffeyville Facility and found numerous instances of the report containing inaccurate information, such as equipment quantity, atmospheric coating conditions, security, staffing, and complexity factor. Each of these are data integration factors used in the determination of the facility risk score. The data from the Risk Report did not match the data from the Facility Evaluation Questionnaires provided by Enterprise's Corrosion Prevention, Operations, and Pipeline Control office. PHMSA reviewed the Facility Risk Analysis Procedure and also found that the determination of the complexity factor for the Coffeyville and El Dorado facilities did not match the table in the 2014 procedure. Specifically, both facilities had a complexity factor below 2.0, but the 2014 procedure requires a complexity factor of 2.0 or greater if the facility has a pump or launcher. Coffeyville and El Dorado both have at least one launcher.

In its Response, Enterprise contested the allegation of violation and requested that it be withdrawn. Regarding PHMSA's allegation that the equipment quantity in the Risk Report did not match the data from the information analysis Facility Evaluation Questionnaires, Enterprise stated that the data used in the Risk Report was accurate. Respondent asserted that the Risk Report data for equipment quantity came from the approved Facility Evaluation Information Analysis Report, which had been determined to be accurate through conversations with operations personnel.

Regarding PHMSA's allegation that the atmospheric coating conditions in the Risk Report did not match the data from the information analysis Corrosion Prevention Questionnaire (CPQ), Enterprise stated that the CPQ collects significantly different atmospheric corrosion data than the atmospheric inspection data collected for the Risk Report. The CPQ collects counts of all the findings from the most recent atmospheric inspection whereas the risk analysis collects data regarding the most severe indication. Respondent asserted that the Risk Report data for atmospheric coating conditions came from the approved Facility Evaluation Information Analysis Report, which had been determined to be accurate through conversations with operations personnel.

Regarding PHMSA's allegation that data concerning facility security was inaccurate, Enterprise acknowledged that its operations questionnaire stated motorized valves were not secured. Enterprise asserted, "there is no note indicating that the motor operated valves at Coffeyville are unsecured in the Information Analysis section summarizing the Mechanical Damage threat," which would be expected based on the instructions Enterprise gave to its Facility Integrity Engineers. Enterprise further stated that it confirmed with Operations that motor operated valves at Coffeyville have been historically secured. Therefore, Respondent asserted, the security status of motor operated valves in the approved information analysis accurately represented the actual security status of the motor operated valves. Enterprise consequently argued that the Risk Report accurately represented the security status of the motor operated valves at Coffeyville.

Regarding PHMSA's allegation that data concerning facility staffing was inaccurate, Enterprise acknowledged that it made an update to its operations questionnaire concerning staffing levels and that this update had not been included in the 2021 Risk Report. Respondent asserted that had this update been included in the Risk Report, the overall risk score for Coffeyville would have been increased by 0.005 points from an overall score of 11.434 to 11.439 (out of 100), and that this increase would not have changed the overall relative risk ranking of Coffeyville.

Regarding PHMSA's allegation that the complexity factor for Coffeyville and El Dorado did not match allowed values in its 2014 procedure, Respondent acknowledged that it changed its Facility Risk Model in 2019, but failed to finalize updates to IM Procedure 2-01F before beginning the inspection.

While Enterprise explained that discrepancies between the questionnaires and risk reports were a product of its data verification, the staffing levels and complexity factors were nonetheless inaccurate in the Risk Report. Respondent acknowledged that had the correct facility staffing criteria been used, it would have resulted in a slightly higher overall risk score for the facility. In addition, Enterprise admitted that the incorrect complexity factor was used because it had failed to update its procedure.

Accordingly, after considering all of the evidence, I find that Respondent violated 49 C.F.R. § 195.452(f)(3) by failing to integrate all available information about the integrity of the entire pipeline with respect to staffing and the complexity factor.

These findings of violation will be considered prior offenses in any subsequent enforcement action taken against Respondent.

WITHDRAWAL OF ALLEGATION

The Notice alleged that Respondent violated 49 C.F.R. Part 195, as follows:

Item 7: The Notice alleged that Respondent violated 49 C.F.R. § 195.452(i)(4), which states:

> **§ 195.452 Pipeline integrity management in high consequence areas.**
> (a) ….
> (i) *What preventative and mitigative measures must an operator take to protect the high consequence area?*
> (1) ….
> (4) *Emergency Flow Restricting Devices (EFRD)*. If an operator determines that an EFRD is needed on a pipeline segment to protect a high consequence area in the event of a hazardous liquid pipeline release, an operator must install the EFRD. In making this determination, an operator must, at least, consider the following factors - the swiftness of leak detection and pipeline shutdown capabilities, the type of commodity carried, the rate of potential leakage, the volume that can be released, topography or pipeline profile, the potential for ignition, proximity to power sources, location of nearest response personnel, specific terrain between the pipeline segment and the high consequence area, and benefits expected by reducing the spill size.

The Notice alleged that Respondent violated 49 C.F.R. § 195.452(i)(4) by failing to conduct an emergency flow restricting device (EFRD) analysis on segments of the MAPCO SW Pipeline System that transport non-highly volatile liquid products that pool when released. Specifically, the Notice alleged that Enterprise failed to conduct an EFRD analysis on its Getty - El Dorado Metering to Kaneb pipeline segment, which transports pooling products. Section 2.2 of Respondent's integrity management program states that "[a] pipeline segment that transports pooling products will be considered for an EFRD analysis."[4]

In its Response, Enterprise stated that it conducts EFRD analyses for segments that transport non-highly volatile liquid products that pool when released through execution of the company's information analysis process in accordance with *IM Procedure 6-01 Information Analysis – Line Pipe, Rev 10 dated 1/25/2010, Rev 15 dated 5/28/2012, Rev 17 dated 5/14/2014*. If it is determined through this information analysis that the installation of an EFRD has the potential to significantly reduce the consequences of a pipeline failure in a high consequence area (HCA), a recommendation is made to conduct an EFRD study in accordance with *IM Procedure 1-02, Emergency Flow Restriction Devices Study, Rev B dated 6/24/2022*.

Enterprise provided with its Response information analyses from 2011, 2012, and 2016 that included the determination to install an EFRD for the pipeline segment LID 820 – Getty – El Dorado Metering to Kaneb. No additional EFRD installations were recommended as a result of each of the information analyses. These documents were not provided during the inspection.

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[4] Violation Report. at Exh. 7.2, at Section 2.2.

The information analyses show that Respondent evaluated the required factors that must be evaluated when making the determination to install EFRDs. In a recommendation for final action submitted pursuant to § 190.209(b)(7), the OPS Southwest Region Director recommended withdrawing the alleged violation of § 195.452(i)(4). Based on Enterprise's Response and the provided information analyses, I find Respondent is not in violation of § 195.452(i)(4). Accordingly, after considering all of the evidence, I hereby order that Item 7 be withdrawn.

COMPLIANCE ORDER

The Notice proposed a compliance order with respect to Items 1, 2, 4, 6, and 7 for violations of 49 C.F.R. §§ 195.202, 195.262(d), 195.420(a), 195.452(f)(3), and 195.452(i)(4), respectively. Under 49 U.S.C. § 60118(a), each person who engages in the transportation of hazardous liquids or who owns or operates a pipeline facility is required to comply with the applicable safety standards established under chapter 601.

As discussed above, Item 7 has been withdrawn. Therefore, the compliance terms proposed in the Notice for that Item are not included in this Order.

With regard to the violation of § 195.202 (Item 1), Respondent did not contest the proposed compliance order. In its Response, Enterprise provided new bolt flange assembly records showing that it fixed the improperly installed bolts at the other four locations identified in the Notice.

With regard to the violation of § 195.262(d) (Item 2), Enterprise did not contest the proposed compliance order. In its Response, Enterprise stated that it has or is in the process of addressing each of the pump installation concerns listed in the Notice.

With regard to the violation of § 195.420(a) (Item 4), Respondent did not contest the proposed compliance order. In its Response, Enterprise provided maintenance records for the leaking valves identified during the PHMSA inspection.

With regard to the violation of § 195.452(f)(3) (Item 6), Enterprise did not contest the proposed compliance order. In its Response, Respondent agreed to take the corrective actions detailed in the Proposed Compliance Order.

For the above reasons, the Compliance Order is modified as set forth below.

Pursuant to the authority of 49 U.S.C. § 60118(b) and 49 C.F.R. § 190.217, Respondent is ordered to take the following actions to ensure compliance with the pipeline safety regulations applicable to its operations:

> 1. With respect to the violation of § 195.202 (**Item 1**), Respondent must ensure bolts on flanges at all locations on the MAPCO SW Pipeline System are installed according to its procedure, *Engineering Standard 8501 (STD.8501), Bolt Torquing and Flange*, and provide inspection and repair documentation to the Director,

Southwest Region, PHMSA within **60** days of issuance of the Final Order.

2. With respect to the violation of § 195.262(d) (**Item 2**), Respondent must ensure that its pumping equipment is at least 50 feet from the boundary of the property for the Coffeyville, Bushton, and Newton pump stations. Enterprise must provide updated drawings, pictures of the measurements, and any modification documentation to the Director, Southwest Region, PHMSA within **180** days of issuance of the Final Order.

3. With respect to the violation of § 195.420(a) (**Item 4**), Respondent must ensure all personnel are trained to perform valve inspections and maintenance in accordance with its evaluation checklist and the operator qualification compliance requirements and provide these training records to the Director, Southwest Region, PHMSA within **90** days of issuance of the Final Order.

4. With respect to the violation of § 195.452(f)(3) (**Item 6**), Respondent must conduct a risk analysis that integrates all available information about the integrity of the entire pipeline and the consequences of a failure for each facility located within an HCA using its updated facility risk analysis procedure and provide the risk analysis for each facility to the Director, Southwest Region, PHMSA within **90** days of issuance of the Final Order.

The Director may grant an extension of time to comply with any of the required items upon a written request timely submitted by the Respondent and demonstrating good cause for an extension.

PHMSA requests that Respondent maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to the Director. 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.

Failure to comply with this Order may result in the administrative assessment of civil penalties not to exceed $200,000, as adjusted for inflation (*see* 49 C.F.R. § 190.223), for each violation for each day the violation continues or in referral to the Attorney General for appropriate relief in a district court of the United States.

WARNING ITEMS

With respect to Items 3 and 5, the Notice alleged probable violations of Part 195, but identified them as warning items pursuant to § 190.205. The warnings were for:

49 C.F.R. § 195.412(a) **(Item 3) ─** Respondent's alleged failure to inspect the surface conditions on or adjacent to each pipeline right-of-way using an appropriate method of inspection; and

49 C.F.R. § 195.402(a) **(Item 5)** ─ Respondent's alleged failure to follow its manual of written procedures for conducting valve inspections and maintenance.

With respect to Items 3 and 5, Enterprise presented information in its Response showing that it had taken certain actions to address the cited items. If OPS finds a violation of this provision in a subsequent inspection, Respondent may be subject to future enforcement action.

Under 49 C.F.R. § 190.243, Respondent may submit a Petition for Reconsideration of this Final Order to the Associate Administrator, Office of Pipeline Safety, PHMSA, 1200 New Jersey Avenue, SE, East Building, 2nd Floor, Washington, DC 20590, with a copy sent to the Office of Chief Counsel, PHMSA, at the same address. The written petition must be received no later than 20 days after receipt of the Final Order by Respondent. Any petition submitted must contain a statement of the issue(s) and meet all other requirements of 49 C.F.R. § 190.243. The terms of the order, including corrective action, remain in effect unless the Associate Administrator, upon request, grants a stay.

The terms and conditions of this Final Order are effective upon service in accordance with 49 C.F.R. § 190.5.

ALAN KRAMER MAYBERRY
Digitally signed by ALAN KRAMER MAYBERRY
Date: 2023.07.14 10:53:00 -04'00'

Alan K. Mayberry
Associate Administrator
for Pipeline Safety

July 14, 2023
Date Issued