



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

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WARNING LETTER

VIA ELECTRONIC MAIL TO: Jeff.armstrong@zenithterminals.com;
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May 31, 2024

Jeff Armstrong
Chief Executive Officer
Zenith Energy Terminals Joliet Holdings LLC
1 Highland Lane
Metuchen, NJ 08840

CPF 3-2024-031-WL

Dear Mr. Armstrong:

From September 12, 2022 through November 30, 2022, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), pursuant to Chapter 601 of 49 United States Code (U.S.C.), conducted an on-site inspection of Zenith Energy Terminals Joliet Holdings LLC's (Zenith Energy) pipeline facilities, procedures, and records in Joliet, Illinois.

As a result of the inspection, it is alleged that Zenith Energy has committed probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations (CFR). The items inspected and the probable violations are:

1. § 195.404 Maps and records.

(a)

(c) Each operator shall maintain the following records for the periods specified:

(1) The date, location, and description of each repair made to pipe shall be maintained for the useful life of the pipe.

Zenith Energy must maintain pipe repair records for the useful life of the pipe as required by § 195.404(c)(1). Zenith Energy failed to provide records documenting the coating repair on a 6.5-foot piping section on the 20-inch JBBR pipeline that was exposed in calendar year 2020 at Dig 1 (Site ID 40000005) to verify and validate external metal loss indication(s) reported by the In-Line Inspection (ILI) survey.

Following the PHMSA inspection, Zenith Energy reviewed and revised its procedures to ensure that the responsible personnel can verify that coating repairs and inspections will be performed as required by the minimum expectations within the procedures and the regulations.

2. § 195.452 Pipeline integrity management in high consequence areas

(a)

(l) What records must an operator keep to demonstrate compliance? (1) An operator must maintain, for the useful life of the pipeline, records that demonstrate compliance with the requirements of this subpart. At a minimum, an operator must maintain the following records for review during an inspection:

(i)

(ii) Documents to support the decisions and analyses, including any modifications, justifications, deviations and determinations made, variances, and actions taken, to implement and evaluate each element of the integrity management program listed in paragraph (f) of this section.

Zenith Energy failed to provide documentation of decisions and analyses, including any modifications, justifications, deviations and determinations made, variances, and actions taken to implement and evaluate each element of the integrity management program listed in § 192.452(f). Specifically, Zenith Energy did not maintain records to demonstrate that pipeline system's (including facilities) Preventive and Mitigative Measures to protect the HCAs have been considered and evaluated in a timely manner during calendar years 2018 through 2020, as required by § 195.452(l)(1)(i), and in accordance with section 5.1, titled Risk Analysis Process, and section 6.0; titled "Preventive and Mitigative Measures" of Zenith Energy's former IMP.

It should be noted that Zenith Energy shut down its pipeline in February, 2020 because of market conditions and proceeded with blocking the pipeline from its source and filled it entirely with nitrogen after purging all remaining crude oil during the week ending June 29, 2022.

3. § 195.446 Control room management.

(a)

(c) Provide adequate information. Each operator must provide its controllers with the information, tools, processes and procedures necessary for the controllers to carry out the roles and responsibilities the operator has defined by performing each of the following:

(1)

(2) Conduct a point-to-point verification between SCADA displays and related field equipment when field equipment is added or moved and when other changes that affect pipeline safety are made to field equipment or SCADA displays;

Zenith Energy failed to conduct an adequate point-to-point verification between SCADA displays and related field equipment when Zenith Energy moved its control room operations to a third-party SCADA system in July, 2022. During PHMSA's field inspection, PHMSA observed

the remote operation of an isolation valve at the Joliet terminal (ESD-2060) by the third party's Control Room located in Texas. There was an extensive delay observed in performing the remote valve operation due to confusion surrounding misidentification of the valve on the third party's SCADA screen.

PHMSA checked the labeling of this valve and confirmed that this valve was ESD-2060 and the valve was consistent with the P&ID drawing. Upon reviewing the point-to-point verification document between the third-party SCADA displays and the valve. The "SCADA Tag Name" incorrectly showed the valve as XV-2060, whereas the "SCADA Tag Description" captured the ESD-2060 labeling.

The schematic of the original equipment identification that was approved by the third party to implement with the SCADA console monitor, showed the isolation valve as XV-2060. PHMSA observed a screenshot of the SCADA console monitor, it was discovered that the valve ID was being duplicated and incorrectly displayed as XV-2060A. Displays, control panels, and other indicators used in both locations must be consistent. Naming conventions including equipment tags, station names, and other identifiers between the control center and remote locations need be standardized as dictated by section 11.3 of API 1165 (IBR) and in accordance with § 195.446(c)(1). This must also be an element of a point-to-point verification.

Following the PHMSA inspection, Zenith Energy provided a new equipment identification schematic showing the corrected and proper labeling of the valve on the SCADA console monitor.

4. § 195.440 Public awareness.

(a)

(i) The operator's program documentation and evaluation results must be available for periodic review by appropriate regulatory agencies.

Zenith Energy did not have program documentation, evaluation results or other records to demonstrate that it had conducted annual audits or review of its Public Awareness Program for calendar years 2018 through 2020, in accordance with the American Petroleum Institute Recommended Practice 1162 (API RP 1162). Section 8.3 - Measuring Program Implementation in API RP 1162 requires an operator to complete an annual audit or review of its Public Awareness Program to ascertain whether the program has been developed and implemented according to the guidelines in API RP 1162. Zenith Energy stated that they review the Public Awareness Program information provided by Paradigm (including email correspondence) each year. Zenith Energy also provided a sample for a Public Awareness Program report developed by a vendor for the calendar year 2020 whose actual purpose is to outline the processes and methods used in the implementation of Zenith Energy baseline public awareness program. However, Zenith Energy provided no documentation of a program reviews for calendar years 2018 through 2020.

Following the PHMSA inspection, Zenith Energy revised its written Public Awareness Program in calendar year 2023, which includes updated revision log and amended guidance on assessing program implementation and effectiveness on annual basis annually and evaluating the need for program enhancements. Zenith Energy provided a record of the assessment of the Public Awareness Program Implementation for the year 2022. This assessment was conducted by the vendor on July 7, 2023.

5. § 195.505 – Qualification program.

Each operator shall have and follow a written qualification program. The program shall include provisions to:

(a)

(i) After December 16, 2004, notify the Administrator or a state agency participating under 49 U.S.C. Chapter 601 if the operator significantly modifies the program after the administrator or state agency has verified that it complies with this section. Notifications to PHMSA may be submitted by electronic mail to InformationResourcesManager@dot.gov, or by mail to ATTN: Information Resources Manager DOT/PHMSA/OPS, East Building, 2nd Floor, E22-321, New Jersey Avenue SE., Washington, DC 20590.

Zenith Energy failed to notify the PHMSA Administrator when it significantly modified its written Operator Qualification Program (OQ) in year 2020. Zenith Energy made significant changes to the program when Zenith Energy transitioned from the NCCER based covered task list to the Common Covered Task (CCT) list administered/managed by the Veriforce Operator group on December 15, 2020. However, the notification of this significant program modification was not previously submitted since Zenith Energy initially thought that the NCCER cover tasks were properly equated to the new Veriforce CCTs that were selected. PHMSA reviewed the covered tasks equivalency and found that the above transition is significant in nature based on the span of control (SOC) ratios increase for some of the common covered tasks identified in Zenith Energy's OQ program. PHMSA determined that an increase in SOC ratios for a covered task is recognized as a significant change per section 3.2.15 of Zenith Energy's former OQ program and section 2.0 of the new OQ program.

Following the PHMSA inspection, an official notification for the significant OQ program change was made to PHMSA on June 06, 2023.

6. § 195.579 What must I do to mitigate internal corrosion?

(a)

(b) Inhibitors. If you use corrosion inhibitors to mitigate internal corrosion, you must -

(1)

(3) Examine the coupons or other monitoring equipment at least twice each calendar year, but with intervals not exceeding 7 ½ months.

Zenith Energy failed to examine internal corrosion coupons or other monitoring equipment at least twice each calendar year, but with intervals not exceeding 7 ½ months in accordance with § 195.579(b)(3). Zenith Energy missed a total of two internal corrosion coupon inspections or other monitoring equipment from 2020 through 2021. The Corrosion Coupon reports provided by Zenith Energy show that monitoring was done by a third-party vendor where internal corrosion coupons were only taken for examination on March 16, 2020, and March 03, 2021. The average corrosion rate was found to be under the KPI target of <1.0 mils per year and no pitting was evident on the coupons as reported by the third-party vendor. Also, other records show that pigging solids and liquid samples were collected at the pig receiver on March 16, 2020, which is the same date as the corrosion coupons were removed for examination. It should be noted that Zenith Energy shut down its crude oil pipeline in February, 2020 because of market conditions. However, the pipeline was stagnant prior to blocking it from its source and filling it entirely with nitrogen after purging all remaining crude oil during the week ending June 29, 2022.

7. § 195.452 Pipeline integrity management in high consequence areas

(a)

(j) *What is a continual process of evaluation and assessment to maintain a pipeline's integrity? –*

(1)

(3) *Assessment intervals.* An operator must establish five-year intervals, not to exceed 68 months, for continually assessing the line pipe's integrity. An operator must base the assessment intervals on the risk the line pipe poses to the high consequence area to determine the priority for assessing the pipeline segments. An operator must establish the assessment intervals based on the factors specified in paragraph (e) of this section, the analysis of the results from the last integrity assessment, and the information analysis required by paragraph (g) of this section.

Zenith Energy failed to continually assess the line pipe's integrity within a five-year interval, not to exceed 68 months, in accordance with § 195.452(j)(3). PHMSA reviewed Zenith Energy's pipeline integrity reassessment that was completed on December 11, 2019, using an In-Line Inspection (ILI) tool. A short non-piggable 40-foot section of the 20-inch JBBR pipeline located at the MOJO facility was excluded from the 2019 integrity reassessment. Because it was not included in the 2019 integrity reassessment, that 40-foot section of pipe should have been assessed prior to or by July 21, 2020. During the 2022 inspection, Zenith Energy realized it did not complete the integrity assessment on the relevant segment, and hydrostatically tested it on August 3, 2022. Therefore, Zenith Energy failed to continually test the 40-foot section of pipe from November 21, 2014 to August 3, 2022, exceeding the five-year, not to exceed 68 months, interval required by § 195.452(j)(3).

8. § 195.507 Recordkeeping.

(a)

(b) Records supporting an individual's current qualification shall be maintained

while the individual is performing the covered task. Records of prior qualification and records of individuals no longer performing covered tasks shall be retained for a period of five years.

Zenith Energy failed to maintain and provide for PHMSA during the inspection operator qualification (OQ) records for the contractor personnel that performed coating repair on a 6.5-foot section of the 20-inch JBBR pipeline on December 14, 2020, contrary to the requirements of § 195.507(b). The coating repair occurred at Dig 1 (Site ID 40000005) and was a covered task that required OQ personnel to conduct it. Thus, the contractor personnel performed a covered task and Zenith Energy failed to maintain OQ records in violation of § 195.507(b).

- 9. § 195.402 - Procedural manual for operations, maintenance, and emergencies.**
(a) General. Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline system commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

Zenith Energy failed to review its written O&M Manual at intervals not exceeding 15 months, but at least once each calendar year, in order to ensure that its procedures are effective, per the requirements of § 195.402(a). Specifically, Zenith Energy's written O&M Manual procedure No. 203, entitled "Coating of Pipelines," had not been reviewed annually, as admitted by Zenith Energy during the inspection. The last revision date of the procedure was indicated as June 1, 2001.

Zenith Energy's written Public Awareness Program plan had also not been reviewed annually since the plan was last updated in calendar year 2017. The plan change log showed that the original plan version number 1.0 had an issue date of September 1, 2016; version number 2.0 had an issue date of December 7, 2017. The plan also did not include the fact that Zenith Energy had been utilizing a vendor to fulfill public education and community awareness requirements. When requested, Zenith Energy could not provide documentation showing annual program reviews took place after the plan was last updated in calendar year 2017. Thus, Zenith Energy failed to review its O&M Manual at intervals not exceeding 15 months, but at least once each calendar year, in order to ensure that the manual is effective, in violation of § 195.402(a).

Following the PHMSA inspection, Zenith Energy amended its procedure governing the performance of internal corrosion coupon monitoring by including reinforced language for better understanding the responsibilities of key roles assigned to the management team.

Under 49 U.S.C. § 60122 and 49 CFR § 190.223, you are subject to a civil penalty not to exceed \$266,015 per violation per day the violation persists, up to a maximum of \$2,660,135 for a related series of violations. For violation occurring on or after January 6, 2023, and before

December 28, 2023, the maximum penalty may not exceed \$257,664 per violation per day the violation persists, up to a maximum of \$2,576,627 for a related series of violations. For violation occurring on or after March 21, 2022 and before January 6, 2023, the maximum penalty may not exceed \$239,142 per violation per day the violation persists, up to a maximum of \$2,391,142 for a related series of violations. For violation occurring on or after May 3, 2021 and before March 21, 2022, the maximum penalty may not exceed \$225,134 per violation per day the violation persists, up to a maximum of \$2,251,334 for a related series of violations. For violation occurring on or after January 11, 2021 and before May 3, 2021, the maximum penalty may not exceed \$222,504 per violation per day the violation persists, up to a maximum of \$2,225,034 for a related series of violations. For violation occurring on or after July 31, 2019 and before January 11, 2021, the maximum penalty may not exceed \$218,647 per violation per day the violation persists, up to a maximum of \$2,186,465 for a related series of violations. For violation occurring on or after November 27, 2018 and before July 31, 2019, the maximum penalty may not exceed \$213,268 per violation per day, with a maximum penalty not to exceed \$2,132,679.

We have reviewed the circumstances and supporting documents involved in this case, and have decided not to conduct additional enforcement action or penalty assessment proceedings at this time. We advise you to correct the item(s) identified in this letter. Failure to do so will result in Zenith Energy Terminals Joliet Holdings LLC being subject to additional enforcement action.

No reply to this letter is required. If you choose to reply, in your correspondence please refer to **CPF 3-2024-031-WL**. 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).

Sincerely,

Gregory A. Ochs
Director, Central Region, Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration

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