



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

901 Locust Street, Suite 480
Kansas City, MO 64106

**NOTICE OF PROBABLE VIOLATION
PROPOSED CIVIL PENALTY
and
PROPOSED COMPLIANCE ORDER**

VIA ELECTRONIC MAIL TO: Brad.Barron@nustarenergy.com;
gary.koegeboehn@nustarenergy.com

January 25, 2023

Mr. Brad Barron
President and Chief Executive Officer
NuStar Pipeline Operating Partnership L.P.
19003 IH-10 West
San Antonio, TX 78257

CPF 3-2023-005-NOPV

Dear Mr. Barron:

From September 12 to September 16, 2022, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), pursuant to Chapter 601 of 49 United States Code (U.S.C.), inspected pipe excavations at three locations on the NuStar Pipeline Operating Partnership L.P. (NuStar) anhydrous ammonia (NH₃) system (Cabot to Franklin line segment) in Arkansas. A review of records for other NuStar pipe excavations was also completed. The purpose of these excavations was for NuStar to re-examine previous repairs of the pipeline.

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

1. § 195.214 Welding procedures.

(a)

(b) Each welding procedure must be recorded in detail, including the results of the qualifying tests. This record must be retained and followed whenever the procedure is used.

NuStar's qualified contract welder did not follow welding procedures when he welded a sleeve on the pipeline at an anomaly dig at Mile Post (MP) 10.28 on the Cabot to Franklin line segment in Arkansas. The original repair occurred on January 17, 2020.

Upon excavation of the previously repaired anomaly, it was noted that the fillet weld on the north side of the sleeve was not completed. The welding procedure S-532-MSLV specifies a minimum of at least three complete weld passes, but the last pass was missing a four to five inch section located near the 12 o'clock orientation. The welder failed to follow the procedure as required by § 195.214(b).

2. § 195.228 Welds and welding inspection: Standards of acceptability.

(a) Each weld and welding must be inspected to insure compliance with the requirements of this subpart. Visual inspection must be supplemented by nondestructive testing.

NuStar's company inspector did not adequately visually inspect the fillet and longitudinal welds on repair sleeves installed during anomaly investigation digs beginning in 2020 to ensure compliance with the requirements of subpart D of Part 195.

On the Cabot to Franklin line segment, two of the three digs visited by PHMSA found visual weld defects that required remedial action. For example, at MP 4.13, originally repaired in 2020, the following issue was noted by visual inspection in 2022:

- The middle cap bead in the longitudinal sleeve weld was below the outer surface of the sleeve. Section 5.9.2- Visual Weld Inspection of the NuStar welding manual indicates that a visual inspection will be performed to assure that the weld was completed in accordance to the qualified welding procedure. Procedure S-532-MSLV designates that the last bead pass(es) be higher than the plane of the pipe.

At MP 10.28, originally repaired in 2020, the following issues were noted during visual inspection of a sleeve in 2022:

- Welder did not complete the circumferential fillet weld between the sleeve and carrier pipe.
- Surface porosity was identified on the fillet weld near the same location.
- One of the cap welds on the longitudinal weld was below the outer surface of the sleeve.

Section 5.9.2 of the NuStar welding manual states that a visual inspection will be performed to assure that the weld was completed in accordance to the qualified welding procedure and that the welding meets the requirements of this specification, including API 1104. The incomplete weld pass, porosity, and the final bead pass being below the plane of the surface of the pipe is not allowed by the qualified welding procedure nor does it meet Section 9.3.9.3 of API 1104 for porosity.

Beginning in August of 2022, NuStar conducted additional excavations on previous repairs on the Cabot to Franklin line segment and other segments, and discovered more locations where previous visual inspections had not identified defects (i.e., undercutting) in the longitudinal and fillet welds. Some of those locations were as follows:

Cabot to Franklin 10”

Dig #3 Station Number 10595+73
Dig #6 Station Number 2829+03
Dig #8 Station Number 28310+63
Dig #9 Station Number 36741+33

Hampton to Cabot 10”

Dig #23 Station Number 475240+49

J1 to O’Fallon

Dig # 002AB Station Number 205127+56

O’Fallon to Gillespie 8”

Dig # 4 Station Number 187899+78
Dig #15 Station Number 47591+33
Dig #16 Station Number 83212+12
Dig #18 Station Number 171822+94

All the fillet and longitudinal sleeve welds at these locations should have been originally evaluated to API 1104 Section 9.7 - Visual Acceptance Standards For Undercutting. In 2022 the sleeve welds were re-evaluated visually by NuStar personnel and found to be unacceptable and were repaired.

3. § 195.234 Welds: Nondestructive testing.

(a)

(b) Any nondestructive testing of welds must be performed -

(1) In accordance with a written set of procedures for nondestructive testing; and

(2)

NuStar’s company inspector did not adequately non-destructively test the fillet and longitudinal welds on repair sleeves in accordance with a written set of procedures. NuStar utilizes magnetic particle testing on their Type B repair sleeves to ensure the integrity of the welds.

NuStar's procedure for inspection of the welds starts with Specification 101 – In-Service Welding, which specifies that “...*the inspection of fillet welds shall be conducted using the Liquid Penetrant process in accordance with WM Spec 106. The Magnetic Particle inspection process, VWM Spec 105, is an acceptable alternate to the Liquid Penetrant process. Any crack or defect indication that has the appearance of crack-like indications shall be cause for rejection.*”

Additionally, Section 14 of the NuStar Welding Manual WEI-1000 (specifically, Section 14.6 - Standards of Acceptability) specifies that “*All relevant indications shall be evaluated in accordance with API 1104, API 1104, Appendix B, whichever is applicable, except that cracks of any length are unacceptable. The acceptability of a weld is determined according to the standards in Section 9 of API 1104. However, if a girth weld is unacceptable under those standards for a reason other than a crack, and if Appendix A to API 1104 applies to the weld, the acceptability of the weld may be determined under that appendix.*”

At MP 10.28, repaired in 2020, a clear defect at the 12:00 o'clock position of the weld that would not have passed the original magnetic particle test was present when examined in 2022. The defect was an incomplete weld pass that was four to five inches long. A magnetic particle test in 2020 would have identified it as a defect that would not meet the acceptability requirements in API 1104 Section 9 as the length of the defect exceeded the limits listed in Section 9.4.2 - Acceptance Standard of API 1104 (Incorporated by reference).

On the Pipeline Information Report (PIR) Work Order 40951429 for this location, dated January 17, 2020, the company inspector documented that a magnetic particle test was performed. However, there was nothing on the form that indicated that any defects were found.

Additionally, as noted above, NuStar conducted additional digs and found multiple examples where undercutting was not called out on a visual inspection. As with the incomplete weld defect anomaly, these features would have been identified by the mag particle testing as a crack like defect and would have to be checked against the requirements of the API 1104 Section 9.3.11 - Undercutting. There was no documentation indicating that any defects were identified from the magnetic particle testing of the original repair.

Proposed Civil Penalty

Under 49 U.S.C. § 60122 and 49 CFR § 190.223, you are subject to a civil penalty not to 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 \$2,391,412 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. For violation occurring on or after November 2, 2015 and before November 27, 2018, the maximum penalty may not exceed \$209,002 per violation per day, with a maximum penalty not to exceed \$2,090,022.

We have reviewed the circumstances and supporting documentation involved for the above probable violation(s) and recommend that you be preliminarily assessed a civil penalty of \$191,700 as follows:

<u>Item number</u>	<u>PENALTY</u>
1	\$63,900
2	\$63,900
3	\$63,900

Proposed Compliance Order

With respect to items 1, 2, and 3 pursuant to 49 U.S.C. § 60118, the Pipeline and Hazardous Materials Safety Administration proposes to issue a Compliance Order to NuStar Pipeline Operating Partnership L.P. Please refer to the *Proposed Compliance Order*, which is enclosed and made a part of this Notice.

Response to this Notice

Enclosed as part of this Notice is a document entitled *Response Options for Pipeline Operators in Enforcement Proceedings*. Please refer to this document and note the response options. All material you submit in response to this enforcement action may be 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).

Following the receipt of this Notice, you have 30 days to submit written comments, or request a hearing under 49 CFR § 190.211. If you do not respond within 30 days of receipt of this Notice, this constitutes a waiver of your right to contest the allegations in 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 Final Order. If you are responding to this Notice, we propose that

you submit your correspondence to my office within 30 days from receipt of this Notice. This period may be extended by written request for good cause.

In your correspondence on this matter, please refer to **CPF 3-2023-005NOPV** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

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

Enclosures: *Proposed Compliance Order*
Response Options for Pipeline Operators in Enforcement Proceedings

cc: Gary Koegeboehn, VP of Pipeline Operations, gary.koegeboehn@nustarenergy.com

PROPOSED COMPLIANCE ORDER

Pursuant to 49 U.S.C. § 60118, the Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to issue to NuStar Pipeline Operating Partnership L.P. a Compliance Order incorporating the following remedial requirements to ensure the compliance of NuStar Pipeline Operating Partnership L.P. with the pipeline safety regulations:

- A. In regard to Item 1 of the Notice pertaining to not following the welding procedure, NuStar Pipeline Operating Partnership L.P. must do the following:
- Identify all the welds produced by the Welder identified on Work Order 40951429 from 2017 to 2022 on the NH3 system, and, of those welds, identify those requiring anomaly repairs.
 - Within 90 days of issuance of the Final Order, provide PHMSA a list of those anomaly repairs and a preliminary schedule to excavate and re-evaluate the repairs.
 - Provide PHMSA a quarterly update on the number of repairs that were excavated and evaluated, the findings, and the remediation performed.
 - All excavations and re-evaluations must be completed within **360** days of receipt of the Final Order.
- B. In regard to Item 2 of the Notice pertaining to inadequate visual inspections, NuStar Pipeline Operating Partnership L.P. must do the following:
- Identify the number of anomaly repairs that were evaluated by the Company Inspector identified on Work Order 40951429 from 2017 to 2022.
 - Determine the number of anomaly repairs that need to be excavated again and re-evaluated from the list requested above to provide a 95% confidence level that the welds will meet the visual inspection acceptability requirements within Section 9 of API 1104.
 - Provide a plan of action justifying the 95% confidence level to PHMSA within 90 days of receipt of the Final Order.
 - Provide PHMSA with a schedule every month of locations that are targeted for excavation and re-evaluation. Provide PHMSA a quarterly update on the number of excavations, the findings, and the remedial actions performed.
 - All excavations and re-evaluations must be completed within **360** days of receipt of the Final Order. If NuStar provides a written request for an extension that is justifiable, the PHMSA Central Region Director may grant an extension of time to complete the digs. Any written requests for an extension must be made a minimum of 30 days in advance.
- C. In regard to Item 3 of the Notice pertaining to inadequate non-destructive inspections, NuStar Pipeline Operating Partnership L.P.
- Identify the number of anomaly repairs that were evaluated by the Company Inspector identified on Work Order 40951429 from 2017 to 2022.
 - Determine the number of anomaly repairs that need to be excavated again and re-evaluated from the list requested above to provide a 95% confidence level that the welds will meet the non-destructive inspection acceptability requirements within Section 9 of API 1104.
 - Provide a plan of action justifying the 95% confidence level to PHMSA within 90 days of receipt of the Final Order.

- Provide PHMSA with a schedule every month of locations that are targeted for excavation and re-evaluation. Provide PHMSA a quarterly update on the number of excavations, the findings, and the remedial actions performed.
 - All excavations and re-evaluations must be completed within 360 days of receipt of the Final Order. If NuStar provides a written request for an extension that is justifiable, the PHMSA Central Region Director may grant an extension of time to complete the digs. Any written requests for an extension must be made a minimum of 30 days in advance
- D. It is requested that NuStar Pipeline Operating Partnership L.P. maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Gregory A. Ochs, Director, Central 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.