



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

901 Locust Street, Suite 480
Kansas City, MO 64106

NOTICE OF AMENDMENT

VIA ELECTRONIC MAIL TO: Brad.Barron@nustarenergy.com and
Gary.Koegeboehn@nustarenergy.com

June 13, 2023

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

RE: NuStar Logistics, L.P.
NuStar Pipeline Operating Partnership, L.P.

CPF 3-2023-017-NOA

Dear Mr. Barron:

From May 3, 2022, through December 14, 2022, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA), pursuant to Chapter 601 of 49 United States Code (U.S.C.), inspected NuStar Logistics, L.P.'s and NuStar Pipeline Operating Partnership, L.P.'s (NuStar)¹ procedures for its pipeline facilities in Texas, Louisiana, Arkansas, Missouri, Iowa, Indiana, Illinois, and Nebraska.

As a result of the inspection, PHMSA has identified the apparent inadequacies found within NuStar's plans or procedures. The items inspected and the inadequacies are described below:

- § 195.204 Inspection – general.**
Inspection must be provided to ensure that the installation of pipe or pipeline systems is in accordance with the requirements of this subpart. Any operator personnel used to perform the inspection must be trained and qualified in the phase of construction to be inspected. An operator must not use operator personnel to perform a required inspection if the operator personnel performed the construction task requiring inspection. Nothing in this section prohibits the operator from

¹ NuStar Pipeline Operating Partnership, L.P. operates NuStar Logistics, L.P.'s South Texas refined products assets and NuStar Pipeline Operating Partnership, L.P.'s anhydrous ammonia assets

inspecting construction tasks with operator personnel who are involved in other construction tasks.

NuStar's Operations and Maintenance Manual, revised December 31, 2021, (O&M) does not provide adequate guidance for new pipeline construction as required under § 195.204. Specifically, NuStar's O&M Procedures 613 "General Guidance for Pipeline Repairs," 614 "Detailed Pipeline Repair Procedures," nor other O&M Procedures specify that NuStar designated personnel will not perform a required inspection if the same personnel performed the construction task requiring inspection.

NuStar must amend its written procedures to comply with the requirements of § 195.204.

2. **§ 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.

NuStar's O&M required under § 195.402(a) is inadequate because it does not provide guidance for the identification and labeling of valves to ensure communication consistency between field and control room personnel pursuant to § 195.404(a)(1)(iv), which requires that the operator maintain current maps and records of its pipeline systems that include the location and identification of Pipeline valves.

Specifically, NuStar's O&M Procedure 315 "Valve Maintenance" Section 3.3 requires that the operator coordinate with the control room prior to maintenance or inspection. In addition, O&M Procedure 318 "Scraper and Sphere Facilities" Sections 3.3.1 and 3.3.2 require notification of the Control Center and/or the appropriate operations personnel prior to launching and after receiving pipeline pigs respectively. Further, O&M Procedures 302 "Maps and Records," Section 3.1 and 603 "Construction/Design Requirements for Pipeline Systems," Section 4.1 provide guidance for the identification and location of valves. However, PHMSA observed that valve identifications, or labels, were not present on valves, or inconsistent with P&IDs, Control Room screens, and HMI screens. NuStar's procedures do not address valve identification on field devices to ensure consistency during normal and emergency operations.

NuStar must amend its written procedures to comply with the requirements of § 195.404(a)(1)(iv).

3. **§ 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.

NuStar's O&M Procedure 315 "Valve Maintenance" required under § 195.402(a) is inadequate because it does not define what valves are necessary for the safe operation of the pipeline pursuant to § 195.420(a). Section § 195.420(a) states, "Each operator shall maintain each valve that is necessary for the safe operation of its pipeline systems . . ." Specifically, NuStar's procedures must provide guidance on how to differentiate and maintain valves necessary for safe operation other than mainline valves. In addition, the procedures do not define the inspection period(s) for valves necessary for the safe operation of the pipeline system other than mainline valves. In addition, the procedures do not define how NuStar plans to maintain valves necessary for the safe operation other than mainline valves.

NuStar must amend its written procedures to comply with the requirements of § 195.420(a).

4. **§ 195.402 Procedural manual for operations, maintenance, and emergencies.**
(a) . . .
(c) **Maintenance and normal operations.** The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations:
(1) . . .
(3) **Operating, maintaining, and repairing the pipeline system in accordance with each of the requirements of this subpart and subpart H of this part.**

NuStar's O&M Procedure 315 "Valve Maintenance" required under § 195.402(c)(3) is inadequate because the procedures do not provide detailed guidance for how valve inspections are to be performed to ensure that the valve is functioning properly pursuant to § 195.420(b).

Section § 195.420(b) states, "Each operator must, at least twice each calendar year, but at intervals not exceeding 7 1/2 months, inspect each valve to determine that it is functioning properly. Each rupture-mitigation valve (RMV), as defined in § 195.2, or alternative equivalent technology that is installed under § 195.258(c) or § 195.418, must also be partially operated. Operators are not required to close the valve fully during the drill; a minimum 25 percent valve closure is sufficient to demonstrate compliance, unless the operator has operational information that requires an additional closure percentage for maintaining reliability."

Specifically, Section 3.3 of O&M Procedure 315 outlines mainline valve inspection procedures

and in step 4 instructs field personnel that Form 6101 (Valve Inspection Report), Form 6109 (Ammonia Line Break Operator Inspection Report), or similar is to be prepared. However, the procedures do not adequately outline specific steps needed for the different types of mainline valves, such as motor-operated valves, manual valves, line break valves, etc. In addition, the procedures do not address the inspection of RMVs, remote-control valves (RCVs), alternative technology, etc.

NuStar must amend its written procedures to comply with the requirements of § 195.420(b).

5. § 195.402 Procedural manual for operations, maintenance, and emergencies.

(a) ...

(c) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations:

(1) ...

(3) Operating, maintaining, and repairing the pipeline system in accordance with each of the requirements of this subpart and subpart H of this part.

NuStar's Corrosion Control Manual, required under § 195.402(c)(3), is inadequate because it does not include instructions that the operator must inspect all pipe coating prior to lowering the pipe into the ditch or submerging the pipe pursuant to § 195.561(a). Section § 195.561(a) states, "You must inspect all external pipe coating required by § 195.577 just prior to lowering the pipe into the ditch or submerging the pipe."

Specifically, the Corrosion Control Manual, Section 3.8 - Coating Inspections "New Construction and Repairs," does not reference NuStar's engineering standard NS-ES-20-001 Version D "Pipeline Construction." In addition, NS-ES-20-001 in Section 11.5 "Holiday Inspection" outlines in Table 1 the requirements for holiday detection. However, Table 1 does not cover jeep/holiday detection for Abrasion Resistant Overcoat (ARO) coating. Further, NuStar's Standard NS-ES-20-001 does not specify that Horizontal Directional Drilling (HDD) pipe coating and pipe be inspected after being pulled through the bore hole to document and verify the piping and coating were not damaged during the HDD pull.

NuStar must amend its written procedures to comply with the requirements of § 195.561(a).

6. § 195.402 Procedural manual for operations, maintenance, and emergencies.

(a) ...

(c) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations:

(1) ...

(3) Operating, maintaining, and repairing the pipeline system in accordance with each of the requirements of this subpart and subpart H of this part.

NuStar's Liquid Pipeline Integrity Management Program and Procedures Manual, Version 9.0, (IMP) required under § 195.402(c)(3) is inadequate because the IMP Plan in Appendix I "SCC Management Plan" does not provide adequate guidance for Stress Corrosion Cracking (SCC) Direct Assessment, pursuant to § 195.588(c). Section § 195.588(c) states, "If you use direct assessment on an onshore pipeline to evaluate the effects of stress corrosion cracking, you must develop and follow a Stress Corrosion Cracking Direct Assessment plan that meets all requirements and recommendations of NACE SP0204-2008 (incorporated by reference). . . ." However, Appendix I of NuStar's IMP Plan incorporates by reference only certain sections of NACE SP0204-2008. PHMSA requires that the SCC Direct Assessment plan meet all of the requirements of NACE SP0204-2008.

NuStar must amend its IMP procedures to comply with the requirements of § 195.588(c).

7. § 195.440 Public Awareness.

- (a) Each pipeline operator must develop and implement a written continuing public education program that follows the guidance provided in the American Petroleum Institute's (API) Recommended Practice (RP) 1162 (incorporated by reference, see § 195.3).**

NuStar's Public Awareness Program, revised December 31, 2021, (PA Plan) required under § 195.440(a) is inadequate because it does not provide adequate guidance to address supplemental communication evaluation review and documentation as required under § 195.440(i). Section § 195.440(i) states, "The operator's program documentation and evaluation results must be available for periodic review by appropriate regulatory agencies." Specifically, NuStar's PA Plan in Section 3.7.1 "Supplemental Communication Evaluation Process" states that the Public Awareness Committee shall conduct a review every other year and additional reviews may be conducted if evaluation factors have changed significantly. However, the PA Plan does not outline where, or how, this review is to be documented. NuStar's current practice, based on PHMSA observations, is to use Forms 6207 and/or 6301. However, neither form is identified in the procedures.

NuStar must amend its written PA Plan to clarify documentation requirements to comply with § 195.440(i).

8. § 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 the 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) A process for identifying which pipeline segments could affect a high consequence area;

NuStar's Facility Integrity Management Program, Version 1, (FIMP) does not provide adequate guidance for air-dispersion modeling and is therefore inadequate to comply with § 195.452(f)(1). Specifically, the FIMP does not incorporate an air dispersion model for an ammonia release from a pump station or facility. The air-dispersion modeling is carried out in accordance with NuStar's IMP Plan, Section 1.4 for mainline pipe. However, the FIMP Plan does not incorporate a reference to the IMP Plan for air-dispersion modeling.

NuStar must amend its written procedures to comply with the requirements of § 195.452(f)(1).

9. § 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 the 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 (see paragraph (g) of this section);

NuStar's IMP procedures required under § 195.452(f)(3) are inadequate because the procedures do not provide proper guidance for the evaluation methods of geotechnical threats pursuant to § 195.452(g)(1)(xxi).

Section § 195.452(g)(1)(xxi) states that the operator, "Integrate information and attributes about the pipeline that include . . . Other pertinent information derived from operations and maintenance activities and any additional tests, inspections, surveys, patrols, or monitoring required under this part."

Specifically, the IMP procedures in Sections 7.1 and 7.2 do not outline specific methods to be used for the evaluation of geotechnical threats. In addition, Appendix D of the IMP procedures note that internal navigation tools are useful for mapping. However, the procedures do not indicate that Inertial Measurement Unit (IMU) inline inspection, or other tools are to be used to analyze geotechnical threats and/or pipeline strain. PHMSA's Advisory Bulletin, ADB 2022-0063, outlines additional guidance an operator should consider to address the potential for damage to pipeline facilities caused by earth movement and other geological hazards.

NuStar must amend its IMP procedures to comply with the requirements of § 195.452(g)(1)(xxi).

10. § 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 the 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 (see paragraph (g) of this section);

NuStar's IMP procedures required under § 195.452(f)(3) are inadequate because the procedures do not include the appropriate assessment methods associated with pipeline circumferential crack integrity threats pursuant to § 195.452(j)(5)(i).

Section § 195.452(j)(5)(i) states, “. . . For pipeline segments that are susceptible to cracks (pipe body and weld seams), an operator must use an in-line inspection tool or tools capable of detecting crack anomalies. . . ”

The IMP procedures Appendix D specifies “Anomaly Types, Detection Tools, and Assessment Methods” that are appropriate to specific integrity threats. However, the IMP procedures do not include methods for assessing circumferential stress corrosion cracking, which was identified as the cause of failure of NuStar's 10-inch pipeline from Chatham, Louisiana to Hampton, Arkansas, near El Dorado, Arkansas on February 27, 2022.

NuStar must amend its written procedures to include additional assessment methods for circumferential SCC as applicable to its pipeline systems in order to comply with the requirements of § 195.452(j)(5)(i).

Response to this Notice

This Notice is provided pursuant to 49 U.S.C. § 60108(a) and 49 C.F.R. § 190.206. Enclosed as part of this Notice is a document entitled Response Options for Pipeline Operators in Compliance Proceedings.

Please refer to this document and note the response options. 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).

Following the receipt of this Notice, you have 30 days to submit written comments, revised procedures, or a request for a hearing under § 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 an Order Directing Amendment. If your plans or procedures are found inadequate as alleged in this Notice, you may be ordered to amend your plans or procedures to correct the inadequacies (49 C.F.R. § 190.206). If you are not contesting this Notice, we propose that you submit your amended procedures to my office within 90 days of receipt of this Notice. This period may be extended by written request for good cause. Once the inadequacies identified herein have been addressed in your amended procedures, this enforcement action will be closed.

It is requested that NuStar maintain documentation of the safety improvement costs associated with fulfilling this Notice of Amendment (preparation/revision of plans, procedures) and submit the total to Gregory Ochs, Director, Central Region, Pipeline and Hazardous Materials Safety Administration. In correspondence concerning this matter, please refer to **CPF 3-2023-017-NOA** 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

Enclosure: *Response Options for Pipeline Operators in Enforcement Proceedings*

Cc: Gary Koegeboehn
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