



Tricia G. Dietrich Petty
Executive Director – Health & Safety

September 14, 2023

By Electronic Mail

Mr. Gregory Alan Ochs
Director, Central Region, Office of Pipeline Safety
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
901 Locust Street; Suite 480
Kansas City, Missouri 64106

Re: NuStar Pipeline Operating Partnership L.P.
Notice of Amendment
CPF No. 3-2023-017-NOA

Dear Mr. Ochs:

On behalf of NuStar Pipeline Operating Partnership L.P. and NuStar Logistics, L.P. (collectively, NuStar or the Company), this letter is to acknowledge receipt of and respond to the above-referenced Notice of Amendment issued by the Pipeline and Hazardous Materials Safety Administration (PHMSA or the Agency) on June 13, 2023.

The Notice of Amendment provides that NuStar make ten (10) amendments to certain plans and procedures for certain NuStar pipelines. Each of the ten requested amendments is set forth below in bold print, followed by the action taken by NuStar in response to each item and, where appropriate, additional relevant information and context. Please note that when reproducing PHMSA's requested amendments below, for brevity's sake, this response does not include the quoted text of the regulation preceding each item.

Please note that the attachments to this letter contain and should be treated as "Confidential Business Information" under the Freedom of Information Act.

- 1. 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.

The requirement that personnel who performed the construction task will not perform a required inspection is not part of the O&M reviewed by PHMSA and referenced in Notice of Amendment. Rather, this requirement is found in Section 10 of the *NuStar Engineering Standard NS-ES-20-001 Pipeline Construction* (Attachment 1). This section separately defines the role of the Welder versus those of the Welding Inspector, such that the same individual cannot be used for both welding and inspections.

- 2. 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).

Respectfully, NuStar disagrees that 49 CFR 195.404(a)(1)(iv) requires valves to be identified in the field with onsite equipment labeling. Rather, what is required is that an operator must "maintain current maps and records" that include the "[l]ocation and identification of pipeline facilities" including "valves". Notably, the terms P&IDs, Control Room screens and HMI Screens are not included in the regulation's text.

NuStar identifies all valves on an internal Geographical Information System (GIS). NuStar's GIS complies with 49 CFR Subpart B, §195.61 National Pipeline Mapping System and Subpart D, §195.266 Construction Records and Subpart F, §195.404 Maps and Records. NuStar continuously evaluates its maps and records. When needed, updates are made to ensure consistency between alignment sheets, P&IDs, Control Room HMI Screens and GIS data records.

PHMSA alleges that certain inconsistencies were noted during the field inspection, but these are not specifically identified. Without such specificity, NuStar cannot meaningfully address the alleged inconsistencies.

NuStar believes it is substantially compliant with the requirements of 49 CFR 195.404(a)(1)(iv), and that this item should not have been included in the Notice of Amendment. However, in the spirit of cooperation, O&M section 302 Maps and Records has been amended to provide that should an instance arise where P&IDs, HMI Screens and GIS data records cannot achieve the desired level of coordination between field and control room personnel, field labeling will be considered to facilitate the communication process. (Attachment 2)

- 3. 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).

NuStar made this amendment in O&M section 315, subsections 3.2 and 3.3 (Attachment 3).

- 4. 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).

The amendments NuStar made in O&M section 315, subsections 3.2 and 3.3 discussed in response to item 3 above, also apply here (Attachment 3).

The RMV was not in effect at the time of the inspection. Please note that the RMV rule is addressed in NuStar's General Design and Construction Considerations and O&M section 320 (Attachment 4).

5. **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).

NuStar made the corrosion-related amendment in an updated version of the Corrosion Control Manual, which will take effect on October 1, 2023 (Attachment 4). With respect to the HDD amendment, however, NuStar respectfully disagrees with PHMSA interpretation. Section 195.561(a) does not apply to line pipe after it is installed by trenchless technology, and it should not have been included in the Notice of Amendment.

6. **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).

NuStar made the amendment in an updated version of the Corrosion Control Manual, which will take effect on October 1, 2023 (Attachment 4).

7. **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).

This amendment was made to the December 31, 2022 revisions date of the PA Plan (Attachment 5).

- 8. 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)."

The amendment was made to an updated version of FIMP that will take effect on October 15, 2023 via MOC process (Attachment 6).

- 9. 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).

September 14, 2023

Page 6

The amendment was made to Appendix D of the NuStar IMP (Attachment 7).

- 10. 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).

The amendment was made to Appendix I of the NuStar IMP (Attachment 8).

NuStar is committed to safely operating its pipeline system in compliance with the federal pipeline safety regulations, including those related to the safe operation of all pipeline and terminal assets. We appreciate the opportunity to respond to the Notice of Amendment and provide additional clarification.

Please contact me directly with any questions or further clarifications needed.

Sincerely,

A handwritten signature in black ink, reading "Tricia G. Dietrich Petty". The signature is fluid and cursive, with the first name "Tricia" being the most prominent.

Tricia G. Dietrich Petty
NuStar Energy-HQ
19003 IH-10 W
San Antonio, TX 78257
Direct: 210-918-2126
Cell: 210-382-3813
Email: tricia.dietrichpetty@nustarenergy.com

September 14, 2023
Page 7

Attachment 1
NuStar Engineering Standard NS-ES-20-001 Pipeline Construction, Section 10

September 14, 2023

Page 8

Attachment 2

NuStar's Operations and Maintenance (O&M) Manual, Procedure 302 Maps and Records

Attachment 3

NuStar's Operations and Maintenance (O&M) Manual, 2021 Procedure 315 Valve Inspection and Maintenance

September 14, 2023
Page 10

Attachment 4
NuStar Corrosion Control Manual, Version 8 Draft

September 14, 2023
Page 11

Attachment 5
NuStar Public Awareness Manual, 2022

Attachment 6
NuStar Facility Integrity Management Program (FIMP), Version K Draft

September 14, 2023

Page 13

Attachment 7

*NuStar Pipeline Integrity Management Program (PIMP), Appendix D: Anomaly Types, Detection Tools,
and Assessment Methods*

September 14, 2023

Page 14

Attachment 8

NuStar Pipeline Integrity Management Program (PIMP), Appendix I: Stress Corrosion Cracking (SCC)