

October 5, 2022

Mr. Gregory A. Ochs, Director
Central Region, Office of Pipeline Safety
U.S. Department of Transportation
Pipeline and Hazardous Material Safety Administration

Re: Bayou Midstream Bakken, LLC (NST Express, LLC) Written Response to Notice of Amendment;
CPF 3-2022-054-NOA

Dear Mr. Ochs:

This letter relates to the Notice of Amendment (“NOA”), issued by the Pipeline and Hazardous Materials Safety Administration (“PHMSA”), dated September 7, 2022, alleging certain violations at the crude oil pipeline system between East Fairview, MT and Alexander, ND, that was owned and operated by NST Express, LLC (“NorthStar”) at the time of inspection and is now owned and operated by Bayou Midstream Bakken, LLC (“Bayou”).

Bayou will be making or has already made the following changes to our Operations and Maintenance Manual as a result of each listed Alleged Inadequacy. We appreciate the Pipeline Hazardous Material Safety Administration working with Bayou Midstream the new owners of the NST Express system.

I. Response to Inadequacies

- 1. 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 in accordance with each of the requirements of this subpart and subpart H of this part.**

Alleged Inadequacy: NST procedures were inadequate to ensure safety when excavating around its pipelines. NST’s procedures in its O&M Section 8 – Pipeline Repairs and Section 16 – Damage Prevention were reviewed during the inspection and found to lack a defined exclusion zone for heavy equipment excavating around an active pipeline. NST’s excavation procedures must be revised to include guidelines for hand digging in the area directly over or beside the pipeline and for preventing excavation equipment from sticking the pipeline.

Response: As part of the acquisition of NorthStar Midstream’s Bakken assets Bayou Midstream has created our own Operations & Maintenance Manual. Below is a table showing Northstar’s Sections relating to this Inadequacy as compared to Bayou’s.

NorthStar Midstream O&M Section	Bayou Midstream O&M Section
Section 8 – Pipeline Repairs	Section 15 – Repairs
Section 16 – Damage Prevention	Section 18 – Damage Prevention

Bayou has updated sections 15.3 and 18.9 of the Operations & Maintenance Manual to define an exclusion zone of 24". We operate in this fashion currently and will updated the manuals to reflect this requirement.

2. **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 in accordance with each of the requirements of this subpart and subpart H of this part.**

Alleged Inadequacy: NST's O&M procedures for corrosion control of breakout tanks were inadequate because they did not follow the requirements of 195.565 to address how corrosion will be controlled on steel breakout tanks installed on concrete pads. Operators must follow Section 5.3.3.3 of ANSI/API RP 651 (2007) which states "care should be observed with tanks on concrete pads since cathodic protection most likely will not reduce any corrosion that might occur." RP 651 does not make the installation of cathodic protection (CP) optional, rather it indicates that operators must take additional steps beyond CP.

In accordance with API RP 651, NST procedures must be revised to describe how corrosion will be controlled and monitored for tanks on concrete pads. Additionally, if CP is not installed on a tank, the procedures must prescribe how additionally steps in protecting the tanks from corrosion are equivalent or superior to the installation of CP.

Response: The five crude oil tanks at East Fairview terminal do not have cathodic protect installed on them. NST's O&M Manual section 12.8 "Cathodic Protection on Breakout Tanks" indicated that "Breakout Tanks must have a cathodic protection system installed in accordance with API 651." Bayou Midstream's new O&M Manual Section 6 Breakout Tanks subpart 9 calls out a note: "Tank pad material has a significant effect on external corrosion of the tank bottom and can influence the effectiveness and applicability of external cathodic protection. Bayou Midstream has concrete pads under their breakout tanks at East Fairview. Concrete can reduce or eliminate the flow of electrical current precluding the use of cathodic protection. Therefore, we do not need to comply with API 651 3rd edition when installing any tank for which is noted in the corrosion control procedures established under CFR 195.402 (c)(3)". This is incompliance with CFR section 195.565 "...However, you don't need to comply with ANSI/API RP 651 when installing any tank for which you note in the corrosion control procedures established under § 195.402(c)(3) why complying with all or certain provisions of ANSI/API RP 651 is not necessary for the safety of the tank."

Bayou Midstream has updated Section 6.9 of the Operations & Maintenance Manual with details to the corrosion control plan for these 5 beaks out tanks at East Fairview.

3. **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 in accordance with each of the requirements of this subpart and subpart H of this part.**

Alleged Inadequacy: NST's procedure for monitoring cathodic protection (CP) levels on breakout tanks with a secondary containment liner are inadequate because they do not provide detail on the use of permanent reference cells. NST's corrosion procedures must be revised to include detail in describing how to monitor CP levels by reading from the leads connected to permanent reference cells installed on tanks.

Response: Bayou Midstream has updated Section 6.9 of the Operations & Maintenance Manual to include; "Where permanent reference cells are installed on cathodic protection on break out tanks, the following procedures will be followed to monitor CP levels by reading the permanent reference cell.

The following steps apply for use of permanent reference cells under tanks:

- Access the junction box and identify the components. There should be permanent reference cells, a positive cable, and possibly a structure cable.
- Identify the permanent reference cells by lead color and by testing against a known cell – such as a portable reference cell. – the cells will either be Zinc – red leads – or Copper Copper-Sulfate – yellow leads.
- Utilizing a variable impedance voltmeter, hook the red lead to the structure and the black lead to the permanent reference cell. While hooked up, increase the impedance of the meter until the potentials do not change. Record the potential.
- Repeat the process until all reference cells have been monitored.
- If the permanent reference cells are identified as zinc, note that and then convert the reading to Copper Copper-Sulfate before entering final data.

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 in accordance with each of the requirements of this subpart and subpart H of this part.**

Alleged Inadequacy: NST's procedure for controlling atmospheric corrosion in accordance with 195.583 were inadequate because they lacked detail in defining detrimental corrosion. Specifically, the procedure failed to differentiate between a light surface oxide and corrosion resulting in pitting or metal loss that is damaging to the pipeline. Additionally, the procedures lacked detailed guidance on how to properly repair damaged coating at the soil transition.

Response: Sections 10.8, 10.8.1, 10.8.2 and 10.8.3 of Bayou's Operation & Maintenance Manual covers all aspects of Atmospheric Corrosion including remedial actions and repair steps for damaged coating on the pipeline. See attached manual for reference and processes included.

Bayou Midstream is committed to full compliance with the requirements of PHMSA. I appreciate your consideration in this matter. Please let me know if you have any questions or require additional information.

Sincerely,

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