



Mr. Allan Beshore
Director, Central Region, OPS
Pipeline and Hazardous Materials Safety Administration
901 Locust Street, Suite 462
Kansas City, Missouri 64106-2641

May 22, 2017

CPF 3-2017-6003M

Mr. Beshore:

Please find included Dakota Midstream response to the Notice of Amendment that we received concerning our pipeline located near Alexandria, North Dakota.

1. **§195.402 Procedural manual for operations, maintenance, and emergencies.**
(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:
(3) Operating, maintaining, and repairing the pipeline system in accordance with each of the requirements of this subpart and subpart H of this part.

§195.432 Inspection of in-service breakout tanks.

(b) Each operator must inspect the physical integrity of in-service atmospheric and low-pressure steel above-ground breakout tanks according to API Std. 653 ...

Dakota Midstream's procedures did not include the inspection requirements of API Std. 653 on breakout tanks. The procedures did not address all the inspection interval requirements of API 653 section 6, including; monthly inspections, in-service inspections, ultrasonic inspections, and out-of-service inspections. Dakota Midstream's procedures also did not include the personnel responsible for completing the tank inspections, and the documentation requirements of each inspection.

Below is the sections of the updated O&M manual covering this:

2.18.9.1 MONTHLY INSPECTION

195.432(a)(b)(c)(d)]

Breakout tanks, if used on a system, shall be subjected to a detailed in-service inspection on a monthly basis according to Section 6.3.1.2 of API 653. Monthly inspections will be conducted by pipeline personnel that are familiar with breakout tank operation and the material transported. Inspections will be documented and anomalies scheduled for remediation promptly. Results of the inspection will be documented on form **OPS.38**

2.18.9.2 EXTERNAL INSPECTIONS

The current wall thickness of the tank shell shall be determined by Ultrasonic Thickness Testing and compared to the calculated minimum wall thickness required for the tank dimensions and product stored. Additionally, the tank wall corrosion rate will be determined from previous thickness tests or other means and using the formula from API Standard 653, the frequency of External inspections by an Authorized Inspector will be determined. Regardless of the results of these calculations, intervals between External Inspections by an Authorized Inspector shall not exceed 5 years. Results will be documented and retained.

2.18.9.3 ULTRASONIC THICKNESS TESTING

Initial Ultrasonic thickness testing will be performed within 5 years of the tanks being placed in service by an authorized inspector. Utilizing formulas found in Section 6.3.3.2 of API Standard 653, the interval between conducting Ultrasonic Thickness Testing will be determined and a program will be initiated to perform test on the frequency determined. However, under no circumstances will this interval exceed 15 years. Results will be documented and retained.

2.18.9.4 INTERNAL INSPECTION

Internal inspection will be performed per API 6.4. Since corrosion rates have not been established, internal inspections will not exceed 10 years of date tanks were put in service. Results will be documented and retained.

2.18.9.5 SUITABILITY FOR SERVICE

Should monthly inspections, external inspections conducted by an authorized inspector or ultrasonic thickness testing reveal conditions that are appreciably different from the conditions for which the tank was designed, a Suitability for Service Inspection shall be conducted according to API 653 utilizing checklists supplied as an Appendix to the standard. The Suitability for Service Inspection will be performed promptly, but in no case longer than one year after the conditions are discovered. Results will be documented and retained.

2. §195.402(c)(3) -See above

**§195.565 How do I install cathodic protection on breakout tanks?
After October 2, 2000, when you install cathodic protection under §195.563(a) to protect the bottom of an aboveground breakout tank of more than 500 barrels 79.49m3 capacity built to API Spec 12F ... you must install the system in accordance with ANSI/API RP 651**

Dakota Midstream's procedures did not include the requirements to install cathodic protection on above ground breakout tanks. The procedures did not address the requirement that cathodic protection must be installed between the tank bottom and nonconductive impermeable liners per API 651 7.2.3.1 (incorporated by reference). Below is the sections of the updated O&M manual covering this:

2.11.1.2 BREAKOUT TANKS & BURIED STATION PIPING [§195.563(d)]

Break out tanks are not currently connected to a cathodic protection system, but CP will be added to regulated tanks during the Summer of 2017. Any future Breakout tanks will have CP installed.

3. §195.402(c)(3) -See above

§195.579 What must I do to mitigate internal corrosion?

(a) General. If you transport any hazardous liquid or carbon dioxide that would corrode the pipeline, you must investigate the corrosive effect of the hazardous liquid or carbon dioxide on the pipeline and take adequate steps to mitigate internal corrosion.

Dakota Midstream's procedures did not include the requirements to investigate the corrosive effects of hazardous liquids, specifically crude oil, and taking adequate steps for mitigation of internal corrosion. The procedures also did not describe mitigation efforts, such as the use of periodic cleaning pigs in the pipeline system.

Below is the sections of the updated O&M manual covering this:

2.11.2 INTERNAL CORROSION CONTROL [§195.579]

The product received into Dakota Midstream Gathering system is crude oil. The Material exhibits no corrosive tendencies and corrosion inhibitors are not required. Dakota Midstream also send periodically sends cleaning pigs through the pipeline. The pipeline contains no corrosion coupons. Dakota Midstream will periodically test the product for H2O, H2S and other corrosive properties. Any liquid found to be corrosive will not be transported until its corrosive effects on the pipeline can be investigated. When the investigation is complete, procedures will be developed and initiated to minimize the effects of corrosion. The investigation and development of procedures will be done in conjunction with a corrosion professional. These procedures must be followed while

transporting the corrosive liquid. When the corrosive affects mitigation includes the use of inhibitors, they will be used in sufficient quantities to mitigate corrosion.

Whenever any pipe is removed from the pipeline for any reason, the internal surfaces must be inspected for evidence of corrosion. **Form OPS.13 "Exposed Pipe Inspection Report"** shall be used for these inspections.

If internal corrosion is found, adjacent pipe must be investigated, both circumferentially and longitudinally to determine the extent of the internal corrosion. This pipe will be replaced to the extent required by Section 2.13.4 of this manual. After investigating the cause of this corrosion, steps must be taken to minimize any further internal corrosion.

The bottom of current Dakota Midstream breakout tanks does not have a bottom liners installed per 195.579(d). Bottom liners will be installed during the first internal inspections. Any new regulated tanks will have liners installed before being put in service.

4. **§195.402(c)(3) - See above**

§195.579 What must I do to mitigate internal corrosion?

(d) Breakout tanks. After October 2, 2000, when you install a tank bottom lining in an aboveground breakout tank built to API Spec 12F ... you must install the lining in accordance with API RP 652.

Dakota Midstream's procedures did not include the installation of tank liners according to API RP 652, including the installation of liners for new tanks.

See #3 above for section of O&M covering this.

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

(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:

(12) Establishing and maintaining liaison with fire, police, and other appropriate public officials to learn the responsibility and resources of each government organization that may respond to a hazardous liquid or carbon dioxide emergency

Dakota Midstream's procedures did not include the requirement to learn the responsibility and resources of each government organization that may respond to a hazardous liquid emergency, including how responsibilities and resources will be learned and how this information will be integrated into the Emergency Plans.

Below is the sections of the updated O&M manual covering this:

EMERGENCY PERSONNEL

McKenzie County Sheriff	701-444-3654	Traffic control, Site control
	701-764-5678	
Alexander Fire Dept., Rural McKenzie County	701-828-3352	Fire control, Foam/Dry Chemical
	701-444-2934	
Watford City Police	701-842-2280	Traffic control
North Dakota Dept. of Transportation	701-328-2500	Traffic control
McKenzie County Healthcare Systems	701-842-3000	Burn, Emergency Care
McKenzie County Emergency Management	701-444-6853	EMS, Ambulance

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

(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:

(13) Periodically reviewing the work done by operator personnel to determine the effectiveness of the procedures used in normal operation and maintenance and taking corrective action where deficiencies are found.

Dakota Midstream's procedures did not include periodically reviewing the work done by operator personnel to determine effectiveness of the procedures and taking corrective action when deficiencies are found. The procedures did not address the following: what personnel and normal operation & maintenance procedures require the review; the defined periods for review; and how the work done by personnel will be reviewed.

Below is the sections of the updated O&M manual covering this:

2.2.1.1 REFRESHER/SUPPLEMENTAL TRAINING

All employees will receive refresher training, which includes annual reviews of critical procedures, critical operating parameters, and safety, health, and environmental requirements. These reviews may be conducted more frequently if deemed appropriate. Supplemental training consists of training sessions, as needed, in equipment and process modifications, procedure changes and operating anomalies.

OPS.33

7. §195.402 Procedural manual for operations, maintenance, and emergencies.

(d) *Abnormal operation.* The manual required by paragraph (a) of this section must include procedures for the following to provide safety when operating design limits have been exceeded:

(5) Periodically reviewing the response of operator personnel to determine the effectiveness of the procedures controlling abnormal operation and taking corrective action where deficiencies are found.

Dakota Midstream's procedures did not include periodically reviewing the response of operator personnel to determine the effectiveness of the procedures controlling abnormal operations and taking corrective action where deficiencies are found.

Below is the sections of the updated O&M manual covering this:

3.7 PERSONNEL REVIEW

[§195.402(d)(5)] [§195.402(d)(5)]

The response of operating personnel will be evaluated annually to determine the effectiveness of the procedures controlling abnormal operation. If deficiencies are found, corrective action will be taken. This evaluation will be documented using form OPS.34.

The annual review will be coordinated by the Pipeline Supervisor or designee in conjunction with this O&M manual when appropriate.

I have also included a current electronic version of our revised O&M manual in the email for your review. Please feel free to contact me if you need further information. I am sending this both by certified mail as well as email to provide the electronic format request.

Regards,



David Graham
Project Manager
Dakota Midstream
For Heath Norman