



Northern Natural Gas
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June 15, 2023

Gregory Ochs, Director, Central Region
Pipeline and Hazardous Materials Safety Administration
901 Locust Street, Suite 480
Kansas City, MO 64106

Re: CPF 3-2023-009-NOPV

Dear Mr. Ochs,

In response to a Notice of Probable Violation and Proposed Civil Penalty dated May 17, 2023, Northern Natural Gas (Northern) submits the following. The five issues are listed with the verbiage from the Notice, followed by Northern's response.

1 – §192.467 External corrosion control: electrical isolation. (Warning Item)

Issue

Northern failed to comply with the regulation because it did not electrically isolate the pipeline from metallic casings that are a part of the underground system. Northern failed to provide documentation on why this isolation was not achieved or if it was impractical to achieve. Northern did not provide information that it had taken other measures to minimize corrosion inside the casing if isolation was impractical.

Response

Northern's procedures require an attempt to clear shorted casings. If the casing cannot be cleared, then it is filled with wax and scheduled for more frequent gas leak detection. Northern changed the procedures to include additional electrical isolation testing and record additional information about the casing and corrosion control. The additional information contributes to the decision on additional measures to address the casing. Northern contends corrosion inside the casing is minimized because filling an electrolytically shorted casing with wax minimizes one of the components required for corrosion to occur, the electrolyte. Metallically shorted casings may require additional measures including replacement or abandonment. Northern continues to remove casings, clear or not, at every opportunity.

2 – §192.605 Procedural manual for operations, maintenance, and emergencies. (Warning Item)

Issue

Northern failed to follow its own operations and maintenance plan from 80.212, Cleaning Pipelines Using Pigs, Section 5.1: “Where pigging is used to remove liquids on a frequent, periodic basis for internal corrosion control or mitigation, document tools used and all findings using the operating procedure 80.212a, Appendix A: Routine Pigging Log. Submit logs into the company’s records management system. Use the category, pigging log sheets on the Document Submittal Form. Retain these records for the life of the facility.”

During the field inspection of the Redfield Storage area, PHMSA observed that an Excel form was utilized for this activity which was not part of the Northern’s procedure. Northern has since modified their procedure to address the use of this form for documenting pigging in storage fields. PHMSA has reviewed the modification to Northern’s procedure after the inspection and found it satisfactory.

Response

Northern revised procedure 80.212, Cleaning Pipelines Using Pigs, to permit using Excel forms for multiple runs on multiple pipelines or equivalent.

3 – §192.605 Procedural manual for operations, maintenance, and emergencies. (Warning Item)

Issue

Northern failed to follow their own operations and maintenance plan 160.101, Valve Maintenance, Section 5.1.7: “If a valve is found to be in a bind, experiencing outside forces, or abnormal loading, inoperable, difficult to operate, or doesn't seal, initiate prompt remedial action. Contact the manager or team leader to designate an alternative valve that can be utilized to satisfy the functions of the inoperable valve until it is repaired. If repairs can be made by field personnel during the maintenance control system (MCS) activity, note the issue and repairs in the comments section of the MCS task sheet when completing. If repairs are unsuccessful, note the issue and that it was not resolved in the comments section of the MCS task and create an Enterprise Actions Tracking System (EATS) general action item and use the list, PLS - Valve Integrity Tracker. Include the valve number, pipeline name and a description of the repair required as well as the alternate valve number. Tag the valve with issue found and denote the alternate valve on the tag as per guide material in 160.101a.”

Upon review of the records provided by Northern, PHMSA identified 18 valves that did not follow Northern’s procedure 160.101, Valve Maintenance, Section 5.1.7 as stated above. PHMSA requested the MCS task sheets for the inspection system as well as the PLS - Valve Integrity Tracker from their EATS. Northern provided the EATS report,

PLS - Valve Integrity Tracker and a spreadsheet that is maintained by the field which appears to be an export from the MCS with columns added at the end of the report.

Northern is currently not following their operations and maintenance procedure by omitting comments in its MCS to track deficiencies and issues with its valves and devices that have been found by field personnel during inspection. The actions taken in the field need to be documented to inform field personnel that there is a potential issue with a valve being inspected, as prescribed by Northern's operations and maintenance procedure 160.101. The valve spreadsheet entries provided by Northern do not include comments corresponding to the issues identified in the PLS - Valve Integrity Tracker data.

Response

Northern revised the procedure and provided additional training to field operations employees. Northern also added additional information in the procedure to accurately define the condition of valve operation.

Insert this comment...	...If this condition exists
Functional And No Further Action Needed or no comments listed	MCS task completed as planned – no issues to report.
FUNCTIONAL Follow up needed maintenance job ticket #	Valve remains operational, MCS task complete, conditions remain unresolved with valve operation requiring additional work. Tracked with maintenance job ticket.
DIFFICULT Remedial action required maintenance job ticket #	Valve remains operational, MCS task complete, team efforts have not eliminated concerns with valve operation. Needs vendor assisted repair. Tracked with maintenance job ticket.
INOPERABLE Remedial action required EATS#	Valve NOT operational and team remedial efforts have not eliminated condition, alternate valves have been identified. Needs replacement. Tracked with EATS.

The table above standardizes MCS comments. A training bulletin was published for all of operations. During pipeline safety training roundtables, the pipeline safety team conducted a review of guide material and the training bulletin with the operations teams.

4 – §192.605 Procedural manual for operations, maintenance, and emergencies. (Violation Item)

Issue

Northern failed to follow their operations and maintenance procedure 080.501 and observe surface conditions over its right-of-way when conducting aerial patrols of its pipeline system in this inspection system. During the field inspection, PHMSA observed overgrown areas of trees and brush obscuring the aerial view of the right-of-way in multiple locations for this inspection system. No ground patrols were conducted on this inspection system in the following three locations:

1. Line 11001 MP 6.624
2. Line 19901 MP 4.283 East from County Road D
3. Line SDB94101, MP 0.93 (Heinrich property)

Additionally, Northern provided the aerial reports for the inspection system and there was no mention of the right-of-way obstruction in any of the cited areas. According to their

procedure 080.501, Patrol Program, and the 080.501a Appendix A, Aerial Patrol Report Form, Northern should be reporting these issues from the aerial patrol on the form. Regarding the objective of patrolling, it states that: "Observations include looking for leak areas, bank erosion or exposed pipeline, brush growing over lines, any unknown encroachment activity, or any change in what might be considered the normal appearance for activity and land terrain through the pipeline corridor." PHMSA does recognize that Northern has cleared the right-of-way for the above-cited locations after the inspection.

Response

Northern revised 80.501, Patrol Program, and provided additional training to field operations employees. The procedure expands the patrol program requirements, assigns an employee to manage aerial patrol pilots, requires a written patrol plan with pipeline safety assistance, and adds maintenance control reminders to conduct ground patrol in areas where visibility from the air may be obstructed.

Additionally, Northern developed a vegetation management inventory to determine locations that require ground patrols. Northern designated a GIS contract employee to use geospatial aerial image analysis software to pinpoint areas needing right-of-way maintenance. Northern does not contest this allegation.

5 – §192.917 How does an operator identify potential threats to pipeline integrity and use the threat identification in its integrity program? (Warning Item)

Issue

Northern's risk assessment program failed to appropriately consider the identified threats for each covered segment. PHMSA reviewed Northern's risk model and data in regard to metallic and electrolytic shorts in casings and Northern failed to incorporate any shorted casings into their risk model. Northern's procedure 040.202, Electrical Isolation, section 5.4.3 clearly states that shorted casing will be addressed in the risk model.

Response

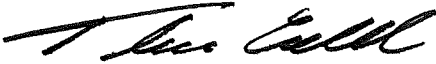
Operating procedure 40.202, Electrical Isolation, states that Northern will risk rank the shorted casings and prioritize remediation based on the risk ranking. This is separate from the integrity management program risk model for covered segments. Northern is revising the integrity management program procedure to include shorted casings specifically in the risk model in accordance with the Safety of Gas Transmission Lines, RIN 2.

Payment

Northern submitted the civil penalty amount by wire transfer as described in the *Response Options for Pipeline Operators in Enforcement Proceedings*. Pay.gov Tracking ID: 275QLKPM and Agency Tracking ID: 76431449557.

Please contact me with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Tom Correll", with a stylized, cursive script.

Tom Correll
Northern Natural Gas
Pipeline Safety and Risk