



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

901 Locust Street, Suite 480
Kansas City, MO 64106

**NOTICE OF PROBABLE VIOLATION
PROPOSED CIVIL PENALTY
and
PROPOSED COMPLIANCE ORDER**

VIA ELECTRONIC MAIL TO: mark.hewett@nngco.com and royce.ramsay@nngco.com

March 2, 2021

Mr. Mark Hewett
President & CEO
Northern Natural Gas Company
1111 South 103rd Street
Omaha, NE 68124

CPF 3-2021-1002

Dear Mr. Hewett:

During a period between May 13 and August 22, 2019 a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA) and state agents from Michigan, Iowa and Minnesota pursuant to Chapter 601 of 49 United States Code inspected Northern Natural Gas Company (Northern Natural) procedures for Operations, Maintenance, Control Room, Integrity Management, and Public Awareness in Omaha, Nebraska, as well as its gas pipeline system facilities located in Iowa, Minnesota, Wisconsin and Michigan.

As a result of the inspection, it is alleged that you have committed probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations (CFR). The items inspected and the probable violations are:

1. § 192.605 Procedural manual for operations, maintenance, and emergencies.

(a) *General.* Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response. For transmission lines, the manual must also include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least once each calendar year. This manual must be prepared before operations of a pipeline system commence. Appropriate parts of the manual must be kept at locations where operations and maintenance activities are conducted.

Northern Natural failed to follow a written procedure for conducting operations and maintenance activities and for emergency response. Specifically, Northern Natural failed to follow its procedure, Engineering Standard 7570 “Joining of Pipe & Piping Components Other Than by Welding” (Revision 11 8/20/2019). Sections 5.6.1.1 and 5.6.1.2 of the procedure contains the requirements for bolt and nut engagement for various flange connections at the company’s pipeline facilities.

During the PHMSA inspection, the inspector identified several flanges within facilities where the bolts were too short to be completely engaged per the definition provided in Northern’s Engineering Standard 7570. The procedure requires, “[f]or existing facilities, completely engaged means that the bolt shall be extend through the nut and the end of the bolt shall be at least flush with the top of the nut for bolts with nuts in the horizontal or vertical down position. Existing bolts with nuts in the vertical up position shall have at least 1 ½ threads exposed beyond the nut to prevent accumulation and retention of water.” The following 26 locations were identified as having flanges that did not meet Engineering Standard 7570 because the bolt did not extend beyond the nut, but rather ended within the nut:

Ridgeway TBS ,Calmar TBS, West Union #1 TBS, Parkersburg #1 TBS, New Hartford #1 TBS, Cedar Falls #1 TBS, Marshalltown #1 TBS, Garner TBS, Britt TBS, Algona TBS, Klemme #1 TBS, Goodell TBS, Belmond TBS, Clarion TBS, Woodward #1 TBS, Madrid TBS, Colo TBS, Newton #1A TBS, Newton #1 TBS , Monroe TBS, Prairie City TBS, Mitchellville TBS, Ankeny #1 TBS, Des Moines #1 TBS, Des Moines #1A & 1C TBS, Minburn TBS

2. § 192.631 Control room management.

(a)

(c) *Provide adequate information.* Each operator must provide its controllers with the information, tools, processes and procedures necessary for the controllers to carry out the roles and responsibilities the operator has defined by performing each of the following:

(1)

(3) Test and verify an internal communication plan to provide adequate means for manual operation of the pipeline safely, at least once each calendar year, but at intervals not to exceed 15 months;

Northern Natural failed to test and verify their internal communication plan to provide adequate means for manual operation of the pipeline safely, at least once each calendar year, but at intervals not to exceed 15 months, in 2017.

A review of Northern Natural's Control Room records show that the operator exceeded the annual test of its Internal Communication Plan requirement by 47 days. Northern Natural completed and documented tests of its internal communication plan on June 29, 2016. On November 15, 2017, Northern Natural participated in a joint emergency exercise with North American Electric Reliability (NERC). Northern Natural counted this joint mock exercise as the test of its 2017 internal communication plan. The 2017 test should have been completed by September 29, 2017.

3. § 192.631 Control room management.

(a)

(j) *Compliance and deviations.* An operator must maintain for review during inspection:

(1) Records that demonstrate compliance with the requirements of this section;

Northern Natural failed to have records that demonstrated compliance to monitor the content and volume of general activity being directed to and required of each controller at least once each calendar year, but at intervals not to exceed 15 months, that will assure controllers have sufficient time to analyze and react to incoming alarms for the years 2016 and 2018 as required by § 192.631(e)(5).

At the time of inspection, Northern Natural was not able to provide records showing that review of the content and volume of general activity directed to and required of each controller was performed. Despite several PHMSA attempts to obtain these records, including a September 21, 2019, *Request for Specific Information* letter, Northern Natural did not produce the records.

4. § 192.713 Transmission lines: Permanent field repair of imperfections and damages.

(a) Each imperfection or damage that impairs the serviceability of pipe in a steel transmission line operating at or above 40 percent of SMYS must be—

(1)

(2) Repaired by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe.

Northern Natural failed to repair pipe anomalies by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe for anomalies identified on the New Lisbon Branch Line WIB14601, specifically Dent 30.

The ClockSpring Installation Manual and ASME B31-4 edition 2006 Table 451.6.2(b)-2 provide guidance for repairing dent and gouge anomalies using ClockSpring. These sources are the reference for methods to make repairs based on reliable engineering tests and analyses that, when followed, provide a process to permanently restore the serviceability of the pipe. An additional technical resource is Northern Natural Procedure 80.201 “Repair of In-Service Pipelines.”

An in-line inspection (ILI) run was completed on the Line WIB14601 segment on July 11, 2018 to assess for metal-loss and dent features. Analysis of the data identified a dent-gouge and gouge on the pipeline segment. After evaluation, the anomalies were repaired with a ClockSpring. At the time of inspection, the anomaly repair records were reviewed and it did not appear from the records that the gouges were abraded until smooth before installing the ClockSpring as required by ClockSpring Installation Manual, section 3.1.4. ASME B 31-4 edition 2006 Table 451.6.2(b)-2 and Northern Natural Procedure 80.201 “Repair of In-Service Pipelines”.

The New Lisbon Branch dent gouge was repaired with two ClockSprings. The defect was a dent 23.1” long and made a repair with 24” of ClockSpring (2-12” ClockSpring). ClockSpring recommended installation practice states, “The ClockSpring should extend 2-inches (51 mm) beyond each side of the defect (i.e. three ClockSpring Should have been used). In this repair, the ClockSprings were fit very close just to cover the anomalies. ASME B31-4 edition 2006 Table 451.6.2(b)-2 indicates that ClockSpring can be used to repair a dent/gouge if the gouge is smoothed prior to installation.

On November 21, 2019, Northern Natural confirmed in their *Response to Request for Special Items*, the gouges were not abraded until smooth prior to the application of the original ClockSprings. Northern Natural further confirmed that a replacement ClockSpring repair was performed on the dent-gouge on October 22, 2019, pursuant to the ClockSpring recommended practices.

Proposed Civil Penalty

Under 49 U.S.C. § 60122 and 49 CFR § 190.223, you are subject to a civil penalty not to exceed \$222,504 per violation per day the violation persists, up to a maximum of \$2,225,034 for a related series of violations. For violation occurring on or after July 31, 2019 and before January 11, 2021, the maximum penalty may not exceed \$218,647 per violation per day the violation persists, up to a maximum of \$2,186,465 for a related series of violations. For violation occurring on or after November 27, 2018 and before July 31, 2019, the maximum penalty may not exceed \$213,268 per violation per day, with a maximum penalty not to exceed \$2,132,679. For violation occurring on or after November 2, 2015 and before November 27, 2018, the

maximum penalty may not exceed \$209,002 per violation per day, with a maximum penalty not to exceed \$2,090,022.

We have reviewed the circumstances and supporting documentation involved for the above probable violation(s) and recommend that you be preliminarily assessed a civil penalty of \$35,100 as follows:

<u>Item number</u>	<u>PENALTY</u>
2	\$19,300
3	\$15,800

Warning Items

With respect to Item 4 we have reviewed the circumstances and supporting documents involved in this case and have decided not to conduct additional enforcement action or penalty assessment proceedings at this time. We advise you to promptly correct this item. Failure to do so may result in additional enforcement action.

Proposed Compliance Order

With respect to item 1 pursuant to 49 U.S.C. § 60118, the Pipeline and Hazardous Materials Safety Administration proposes to issue a Compliance Order to Northern Natural Gas. Please refer to the *Proposed Compliance Order*, which is enclosed and made a part of this Notice.

Response to this Notice

Enclosed as part of this Notice is a document entitled *Response Options for Pipeline Operators in Enforcement 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, or request a hearing under 49 CFR § 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 a Final Order. If you are responding to this Notice, we propose that you submit your correspondence to my office within 30 days from receipt of this Notice. This period may be extended by written request for good cause.

In your correspondence on this matter, please refer to **CPF 3-2021-1002** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

Gregory A. Ochs
Director, Central Region, OPS
Pipeline and Hazardous Materials Safety Administration

Enclosures: *Proposed Compliance Order*
Response Options for Pipeline Operators in Enforcement Proceedings

cc: Royce Ramsay, VP Operations, royce.ramsay@nngco.com

PROPOSED COMPLIANCE ORDER

Pursuant to 49 U.S.C. § 60118, the Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to issue to Northern Natural Gas Company a Compliance Order incorporating the following remedial requirements to ensure the compliance of Northern Natural Gas Transmission with the pipeline safety regulations:

1. In regards to Item Number 1 of the Notice pertaining to Northern Natural failed to follow procedures related to flange bolt engagement for various flanges at 26 facilities.

Northern Natural needs to correct this condition by installing the proper bolts to meet the Engineering Standard 7570 definition of complete engagement as found in Engineering Standard 7570 “Joining of Pipe & Piping Components Other Than By Welding” (Revision 11 8/20/2019) 5.6.1.1 and 5.6.1.2. This should be completed within 120 days of the receipt of this letter.

2. It is requested (not mandated) that Northern Natural Gas Transmission maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Allan Beshore, Director, Central Region, Pipeline and Hazardous Materials Safety Administration. It is requested that these costs be reported in two categories: 1) total cost associated with preparation/revision of plans, procedures, studies and analyses, and 2) total cost associated with replacements, additions and other changes to pipeline infrastructure.