



U.S. Department
of Transportation

Pipeline and Hazardous
Materials Safety
Administration

1200 New Jersey Avenue, SE
Washington, D.C. 20590

VIA ELECTRONIC SERVICE AND FAX TO: [402-398-7119]

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

October 11, 2013

Re: CPF No. 4-2013-1016H

Dear Mr. Hewett:

Enclosed is a Corrective Action Order issued in the above-referenced case. It requires Northern Natural Gas Company (Northern) to take certain corrective actions with respect to Northern's "Line C" that ruptured on October 8, 2013 in the Ditch Valley Community of Oklahoma (approximately 4 miles south of Englewood, Kansas and 10 miles north of Rosston, Oklahoma). Service is being made by electronic service and facsimile. Your receipt of this Corrective Action Order constitutes service of that document under 49 C.F.R. § 190.5. The terms and conditions of this Order are effective upon receipt.

Thank you for your cooperation in this matter.

Sincerely,

Jeffrey D. Wiese
Associate Administrator
for Pipeline Safety

Enclosure

cc: Linda Daugherty, Deputy Associate Administrator for Field Operations, OPS
Rod Seeley, Director, Southwest Region, OPS
Royce Ramsay, Vice President, Northern Natural Gas Co., Fax: (402) 398-7118
Thomas Correll, Director, Northern Natural Gas Co., Pipeline Safety and Integrity (*via email to Thomas.Correll@NNGCO.com*)

**U.S. DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
OFFICE OF PIPELINE SAFETY
WASHINGTON, D.C. 20590**

In the Matter of

Northern Natural Gas Company,

Respondent.

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CPF No. 4-2013-1016H

CORRECTIVE ACTION ORDER

Purpose and Background

This Corrective Action Order (Order) is being issued, under the authority of 49 U.S.C. § 60112, to require Northern Natural Gas Company (Northern or Respondent) to take necessary corrective action to protect the public, property, and the environment from potential hazards associated with the recent failure on the natural gas transmission pipeline known as "Line C."

On October 8, 2013, an incident occurred on Northern's "Line C," resulting in a full bore rupture and ignition of the escaping natural gas (Failure), necessitating the evacuation of four homes and the closure of U.S. Hwy 283. "Line C" is a 30-inch diameter, .344-inch wall pipeline that transports natural gas from Texas to the upper Midwest. The affected segment of "Line C" runs from the Beaver Compressor Station in Beaver County, Oklahoma to the Mullinville Compressor Station in Kiowa County, Kansas. The rupture occurred at approximate Mile Post (MP) 34.22 and approximately 220 feet of pipe was ejected from the ground. The cause of the Failure has not yet been determined. Pursuant to 49 U.S.C. § 60117, the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), has initiated an investigation of the accident. The preliminary findings of the ongoing investigation are as follows.

Preliminary Findings

- The pipeline in question is owned by Northern Natural Gas Company of Omaha, Nebraska.
- PHMSA's Inspection Unit 2984 *Amarillo Region-Spearman District* includes part of Northern Natural Gas Company's Field Area which is in the southern portion of Northern's 14,900 mile pipeline system located south of Clifton, Kansas.
- The Field Area consists of a vast network of transmission facilities that connect to gathering systems in major production basins in New Mexico, Texas, Oklahoma and

Kansas to serve its market area which lies to the north of Clifton, Kansas and on up to the upper Midwest.

- At 10:40 pm CDT, on October 8, 2013, a rupture occurred on the “Line C” at approximately MP 34.22 which resulted in the release of natural gas. Subsequently, the gas ignited and four (4) homes were evacuated within a two (2) mile radius of the incident. Oklahoma Highway 283 was closed for several hours until the fire was determined to be under control and safe.
- This failure occurred in the Field Area of Northern’s system near the Oklahoma-Kansas border on “Line C”, one line in a parallel series of three natural gas pipelines. This incident occurred approximately four (4) miles south of Englewood, Kansas and ten (10) miles north of Rosston, Oklahoma in what is known as the Ditch Valley Community in Northwestern Oklahoma.
- The failure in question was located in an open field where the pipeline was buried with approximately five (5) feet of cover. The pipeline was manufactured by Republic Steel and installed in 1954. It is 30-inch diameter, .344-inch wall; Grade X52, DSAW seamed pipe manufactured to API 5L. The ruptured segment was approximately 220 feet long and was ejected from the ditch.
- This incident did not cause any known injuries or fatalities.
- The maximum allowable operating pressure (MAOP) of the pipeline at the failure site is 860 psig which was established in 1970 under §192.619(a)(3). At the time of the failure, the actual operating pressure of the pipeline was 810 psig at the Beaver Compressor Station Discharge to “Line C.”
- Various state (Oklahoma, Kansas, and Texas), county, and federal agencies responded to the scene, including PHMSA, and local emergency responders.
- “Line C” from MLV 2 (MP 19.39) to MLV 4 (MP 34.99) was shut down following the incident and currently remains out of service.
- The cause of the failure is still undetermined and the investigation is ongoing.

Determination of Necessity for Corrective Action Order and Right to Hearing

Section 60112 of Title 49, United States Code, provides for the issuance of a Corrective Action Order, after reasonable notice and the opportunity for a hearing, requiring corrective action, which may include the suspended or restricted use of a pipeline facility, physical inspection, testing, repair, replacement, or other action, as appropriate. The basis for making the determination that a pipeline facility is hazardous, requiring corrective action, is set forth both in the above-referenced statute and 49 C.F.R. § 190.233.

Section 60112 and the regulations promulgated thereunder provide for the issuance of a Corrective Action Order without prior opportunity for notice and hearing upon a finding that failure to issue the Order expeditiously will likely result in serious harm to life, property, or the environment. In such cases, an opportunity for a hearing will be provided as soon as practicable after the issuance of the Order.

After evaluating the foregoing preliminary findings of fact, I find that operation of Northern's "Line C" without corrective measures would be hazardous to life, property, and the environment. Additionally, having considered the uncertainties as to the cause of the Failure; the age of the pipeline; the location of the failure site as to the proximity to other pipelines, state highways, and county roads; and the proximity of the pipeline to navigable waterways, environmentally sensitive areas and populated areas, I find that a failure to issue this Order expeditiously to require immediate corrective action would result in the likelihood of serious harm to life, property, or the environment.

Accordingly, this Corrective Action Order mandating immediate corrective action is issued without prior notice and opportunity for a hearing. The terms and conditions of this Order are effective upon receipt.

Within 10 days of receipt of this Order, Respondent may request a hearing, to be held as soon as practicable, by notifying the Associate Administrator for Pipeline Safety in writing, with a copy to the Director, Southwest Region, PHMSA (Director). If a hearing is requested, it will be held telephonically or in-person in Houston, Texas, or Washington, D.C.

After receiving and analyzing additional data in the course of this investigation, PHMSA may identify other corrective measures that need to be taken. In that event, Respondent will be notified of any additional measures required and amendment of this Order will be considered. To the extent consistent with safety, Respondent will be afforded notice and an opportunity for a hearing prior to the imposition of any additional corrective measures.

Required Corrective Actions

Pursuant to 49 U.S.C. § 60112, I hereby order Northern to immediately take the following corrective actions on its "Line C" Pipeline (Affected Pipeline):

1. *Affected Segment Pressure Restriction.* After restart, the "Line C" Affected Segment from Beaver Compressor Station (MP 0) to Mullinville Compressor Station (MP 90.1) is not to exceed 80% of the actual operating pressure just prior to the failure. The actual operating pressure was determined to be 810 psig, and 80% of that pressure is 648 psig. This restriction shall remain in place until written approval; pursuant to item 4 is obtained from the PHMSA Region Director, Southwest Region (Director).
2. *Metallurgical Analysis and Testing.* Northern shall conduct a detailed metallurgical analysis of the pipe that failed on October 8, 2013, to determine the cause and contributing factors for the failure as follows:
 - A. Document the chain-of-custody when handling and transporting the failed pipe section and other evidence from the failure site;
 - B. Within 10 days of receipt of this Order, submit to the Director a proposed selection of the testing laboratory and proposed metallurgical testing protocol for prior approval.

- C. Prior to commencing the mechanical and metallurgical testing, provide the Director with the scheduled date, time, and location of the testing to allow a PHMSA representative to witness the testing; and
 - D. Ensure that the testing laboratory distributes all resulting reports in their entirety (including all media); whether draft or final, to the Director at the same time as they are made available to Northern.
3. *Restart Plan.* Within 10 days of the receipt of this Order, Northern shall develop and submit a written plan detailing the actions to be taken prior to restarting the Affected Segment including planned repairs, inspections and returning the Affected Segment to service (returning to service means purging and filling the pipeline with natural gas up to but not above the Pressure Restriction specified in Item 1).
- A. The restart plan must provide for adequate patrolling of the Affected Segment during the restart process and must include an incremental start-up, with each increment to be held for at least two hours.
 - B. The plan must include sufficient surveillance of each increment to ensure that no leaks are present when operation of the line resumes.
 - C. The restart plan must specify a daylight restart and advance communications with local emergency response officials.
4. *Integrity Verification Plan.* Northern shall submit a written plan, to verify the integrity of the Affected Segment based upon the results of Item 2. The plan must provide integrity testing that addresses all known or suspected factors in the failure.
5. *Removal of Pressure Restriction.* Northern may request approval from the Director, to remove or modify the pressure restriction of the Affected Segment based on demonstrating that the hazard has been abated or that a higher pressure is justified based on an analysis showing that the pressure increase is safe considering all known defects, anomalies and operating parameters of the pipeline. The request should include an additional return to service plan with the final results of all testing and activities conducted pursuant to items 2 through 4 above. The Director's determination will be based on satisfactory completion of these requirements and evidence that mitigative actions taken by the operator provide for the safe operation of the pipeline.
6. *Reporting.* Northern shall submit quarterly reports to the Director that: (1) include all available data and results of the testing and evaluations conducted pursuant to this Order; and (2) describe the progress of the repairs or other remedial actions being undertaken. The first quarterly report is due on January 15, 2013. The Director may change the interval for the submission of these reports.
7. *Documentation of the Costs.* It is requested but not required that Northern maintain documentation of the costs associated with implementation of this Corrective Action Order. Include in each monthly report submitted, the to-date total costs associated with: (1) preparation and revision of procedures, studies and analyses; (2) physical changes to

pipeline facilities, including repairs, replacements and other modifications; and (3) environmental remediation, if applicable.

8. *Approvals.* With respect to each submission that under this Order requires the approval of the Director, the Director may: (a) approve, in whole or part, the submission; (b) approve the submission on specified conditions; (c) modify the submission to cure any deficiencies; (d) disapprove in whole or in part, the submission, directing that Northern modify the submission, or (e) any combination of the above. In the event of approval, approval upon conditions, or modification by the Director, Northern shall proceed to take all action required by the submission as approved or modified by the Director. If the Director disapproves all or any portion of the submission, Northern must correct all deficiencies within the time specified by the Director, and resubmit it for approval.
9. *Extensions of Time.* The Director may grant an extension of time for compliance with any of the terms of this Order upon a written request timely submitted demonstrating good cause for an extension.

The actions required by this Corrective Action Order are in addition to and do not waive any requirements that apply to Respondent's pipeline system under 49 C.F.R. Part 192, under any other order issued to Respondent under authority of 49 U.S.C. § 60101 et seq., or under any other provision of Federal or State law.

Respondent may appeal any decision of the Director to the Associate Administrator for Pipeline Safety. Decisions of the Associate Administrator shall be final.

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).

Failure to comply with this Order may result in the assessment of civil penalties and in referral to the Attorney General for appropriate relief in United States District Court pursuant to 49 U.S.C. § 60120.

In your correspondence on this matter, please refer to CPF No. 4-2013-1016H and for each document you submit, please provide a copy in electronic format whenever possible.

The terms and conditions of this Corrective Action Order are effective upon receipt.


Jeffrey D. Wiese
Associate Administrator
for Pipeline Safety

10/11/2013
Date Issued