



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

12300 W. Dakota Ave., Suite 110
Lakewood, CO 80228

NOTICE OF AMENDMENT

VIA ELECTRONIC MAIL TO: Josiah.patkotak@north-slope.org

November 2, 2023

The Honorable Josiah Patkotak
Mayor of the North Slope Borough
North Slope Borough Energy Management
P.O. Box 69
Utqiagvik, AK 99723

CPF 5-2023-038-NOA

Dear Mayor Patkotak:

From October 17 through October 20, 2022, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), pursuant to Chapter 601 of 49 United States Code, inspected the North Slope Borough Energy Management's (NSB), Nuiqsut natural gas distribution system in Nuiqsut, Alaska.

Based on the inspection, PHMSA has identified the apparent inadequacies in NSB's plans or procedures, as described below:

1. § 192.59 Plastic pipe.

(a) New plastic pipe is qualified for use under this part if:

(1) It is manufactured in accordance with a listed specification.

NSB's procedures were inadequate. Specifically, NSB's Operations and Maintenance (O&M) manual, Section P-192.281: Joining of Plastic Pipe, page 140 of 525, included a section titled "Caulked bell and Spigot Joints (192.753)". Caulked bell and spigot joints are cast iron metal equipment, yet were included in a section pertaining only to plastic piping.

NSB must amend its procedures to be more clear when referring to material type requirements regarding operations, maintenance, and repair of pipe.

2. § 192.383 Excess flow valve installation.

(a)

(e) *Operator notification of customers concerning EFV installation.* Operators must notify customers of their right to request an EFV in the following manner:

(1) Except as specified in paragraphs in paragraphs (c) and (e)(5) of this section, each operator must provide written or electronic notification to customers of their right to request the installation of an EFV. Electronic notification can include emails, Web site postings, and e-billing notices.

NSB's procedures were inadequate because they did not require notification to current customers that they had the right to request to have an excess flow valve (EFV) installed. Specifically, during the inspection, PHMSA observed that while no new service lines had been installed within the past 5 years, according to the annual reports, NSB's informational mail-outs did not inform current customers of their right to request the installation of an EFV. Upon further inquiry, NSB could not produce records that it had notified customers of their right to request an EFV.

NSB must amend their procedures to inform current customers of their right to request installation of an EFV.

3. § 192.513 Test requirements for plastic pipelines.

(a)

(c) The test pressure must be at least 150% of the maximum operating pressure or 50 psi (345 kPa) gauge, whichever is greater. However, the maximum test pressure may not be more than 2.5 times the pressure determined under § 192.121 at a temperature not less than the pipe temperature during the test.

NSB's procedures were inadequate pertaining to pressure test requirements for plastic pipe. Specifically, O&M manual Page 242 of 525, Pressure Testing Plastic Pipe, contained a note within the Procedure Steps that stated testing the pipe at 3 times the maximum allowable operating pressure (MAOP) was acceptable¹. The pipeline safety regulations limits the maximum test pressure to 2.5 times the MAOP.

NSB must update its O&M manual to correct the maximum allowable test pressure for plastic pipelines.

¹ § 192.513(c) was amended effective date January 22, 2019. See 83 FR 58719.

4. § 192.605 Procedural manual for operations, maintenance, and emergencies.

(a)

(b) *Maintenance and normal operations.* The manual required by paragraph (a) of this section must include procedures for the following, if applicable, to provide safety during maintenance and operations.

(1) Operating, maintaining, and repairing the pipeline in accordance with each of the requirements of this subpart and subpart M of this part.

NSB's procedures were inadequate pertaining to pressure safety valves (PSV) and ruptured disks. Specifically, a review of NSB's O&M manual, page 454 of 525, Relief Valves, did not accurately reflect the practices utilized by the operator. The O&M manual directed personnel on removal, disassembly, maintenance, testing, calibration, and reassembly of PSVs. However, a review of NSB's records demonstrated that all PSV maintenance, inspection, testing, and calibration had been completed by a third party, off site.

Additionally, the O&M manual, page 455 of 525, Pressure Limiting Devices, described a process for performing maintenance tasks that included verifying ratings of rupture disks. Rupture disks are not installed in the Nuiqsut distribution system, nor are they considered pressure limiting devices.

NSB must amend its procedures to accurately reflect the equipment installed in the system and the practices utilized by the operator to conduct PSV maintenance, testing, and calibration.

5. § 192.605 Procedural manual for operations, maintenance, and emergencies.

(a)

(b) *Maintenance and normal operations.* The manual required by paragraph (a) of this section must include procedures for the following, if applicable, to provide safety during maintenance and operations.

(1)

(2) Controlling corrosion in accordance with the operations and maintenance requirements of subpart I of this part.

NSB's procedures were inadequate pertaining to monitoring internal corrosion. Specifically, the O&M manual, P-192.475: Internal Corrosion Control, page 214 requires the operator to, "Periodically conduct testing to determine whether the gas transported is potentially corrosive." It additionally states that, "The North Slope Borough shall at intervals not exceeding 7½ months, but at least twice each calendar year, examine coupons or other types of monitoring equipment to determine the effectiveness of the inhibitors or the extent of any corrosion."

During inspection, PHMSA found that there were no coupons or other corrosion inhibitors installed within the system. Rather, the inspection found that in practice, NSB was monitoring the concentration of corrosive elements in its gas by reviewing quarterly reports from Kuparuk Labs (Alpine transmission line) and assessing the concentrations of hydrogen sulfide and water. However, the O&M manual did not include thresholds for hydrogen sulfide, water, or other

potentially corrosive elements, nor did it include any steps to minimize internal corrosion upon determination that the gas was corrosive.

NSB must amend its O&M manual to reflect the current practices and steps it utilizes to conduct internal corrosion control.

6. § 192.615 Emergency plans.

(a) Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:

(1)

(2) Establishing and maintaining adequate means of communication with the appropriate public safety answering point (i.e., 9-1-1 emergency call center), where direct access to a 9-1-1 emergency call center is available from the location of the pipeline, and fire, police, and other public officials. Operators may establish liaison with the appropriate local emergency coordinating agencies, such as 9-1-1 emergency call centers or county emergency managers, in lieu of communicating individually with each fire, police, or other public entity. An operator must determine the responsibilities, resources, jurisdictional area(s), and emergency contact telephone number(s) for both local and out-of-area calls of each Federal, State, and local government organization that may respond to a pipeline emergency, and inform such officials about the operator's ability to respond to a pipeline emergency and the means of communication during emergencies.

NSB's procedures were inadequate pertaining to emergency action response. NSB's O&M manual page 281 of 525, Respond to Event, states that "Alpine/Nuiqsut Control Room will deploy personnel, equipment, tools, and materials as appropriate to the scene." The Nuiqsut control room was inaccurately described within NSB's Pipeline Specific Operations and Maintenance Manual (PSOM). Per the PSOM, Section 8.3 Abnormal Conditions, page 32 of 94, "Abnormal operations beyond preset limits will result in a general Odorant Injection System alarm on the Local Computer Display (LCD) in the Control Room of the PRV Station and at the Alpine Operator's Station. This Nuiqsut control room within the PRV Station was not an actual manned location and only contained a controller display panel. No Nuiqsut Control Room exists. Further NSB does not have authority over the ConocoPhillips Alpine control room and cannot speak to how ConocoPhillips Alpine will respond to a distribution emergency event.

The O&M manual did not describe a procedure requiring coordination with the local fire department, police, or ConocoPhillips Alpine control room.

Further, NSB's PSOM, Section 12.1 Communication/Emergency, page 47 of 94, stated: "Nuiqsut operators communicate the following information by telephone. 1. Visually inspect daily for unusual conditions, checking for dust/build-up. 2. Verify operating condition." This language does not adequately describe specific steps to take during an emergency. Additionally, the procedural steps failed to describe whom the Nuiqsut operators are intended to be in communication with, and how they are to establish contact. NSB's O&M manual did not contain

any language mandating the establishment and maintenance of adequate means of communication with appropriate fire, police, and other public officials. Additionally, NSB did not have a procedure and could not provide records establishing a liaison with police, fire, or other public officials.

NSB must amend its emergency plans in accordance with § 192.615(a)(2).

7. § 192.617 Investigation of failures and incidents.

(a) *Post-failure and incident procedures.* Each operator must establish and follow procedures for investigating and analyzing failures and incidents as defined in § 191.3, including sending the failed pipe, component, or equipment for laboratory testing or examination, where appropriate, for the purpose of determining the causes and contributing factor(s) of the failure or incident and minimizing the possibility of a recurrence.

NSB's procedures were inadequate pertaining to accidents and failures. O&M manual, P-192.617: Investigating and Analyzing Incidents and Failures, Page 297 of 525, did not include procedures for analyzing accidents and failures, including selection of samples of the failed pipe, components, or equipment for laboratory examination. The operator failed to include instructions of when a laboratory analysis may be required, what samples will be obtained for laboratory analysis, and how the information will be analyzed to minimize the possibility of recurrence.

NSB must amend its procedures regarding investigation of failures and incidence in accordance with § 192.617.

8. § 192.625 Odorization of gas.

(a)

(f) To assure the proper concentration of odorant in accordance with this section, each operator must conduct periodic sampling of combustible gases using an instrument capable of determining the percentage of gas in air at which the odor becomes readily detectable. Operators of master meter systems may comply with this requirement by--

NSB's PSOM procedure was inadequate pertaining to odorant testing. Specifically, NSB's PSOM procedure repeatedly uses the word "sniff" which implies the use of a human sense of smell in lieu of the use of the required instrumentation. Additionally, language in the procedure alludes to both utility operating personnel and customers performing monthly testing. PSOM, Section 8.4 Odorant Testing, Page 33/94 stated: "... the operator shall perform monthly and document "sniff" tests with an odor testing instrument and operator "sniff" test. Instrumented "sniff" testing should be performed and recorded monthly....1. Monthly "sniff" tests should be performed by both utility operating personnel and customers. 2. When utility operating personnel do any work on the gas distribution system, they should sniff the gas for odor."

Additionally, NSB's procedures are inconsistent regarding the frequency for testing odorant levels. PSOM, Section 8.4 Odorant Testing, Page 33/94, stated: "...Instrumented 'sniff' testing should be performed and recorded monthly." While the O&M manual, Section P-192.625: Odorization of Natural Gas Pipelines, Page 331/525, stated: "Frequency...Perform 'sniff' test annually."

Therefore NSB's procedures for odorant testing is inadequate. NSB must amend its procedures to be consistent and concise on who, how, and at what frequency it performs odorant testing.

9. § 192.627 Tapping pipelines under pressure.

Each tap made on a pipeline under pressure must be performed by a crew qualified to make hot taps.

NSB's procedures were inadequate pertaining to tapping pipelines under pressure. The O&M manual, P-192.225: Pipeline Welding, in the Hot-Tapping of Plastic Piping section on page 129 of 525, stated: "Hot tapping of plastic HDPE piping is done by following McElroys Procedure which begins on the following page." The following page of the O&M manual did not include the referenced "McElroys Procedure." The O&M manual did not include a procedure to hot tap plastic pipelines.

The O&M manual, P-192.711: Pipeline Repair Procedures, in the Hot Tapping and Stoppling Pressurized Pipeline section on page 416 of 525, did not specify what material the procedure applied to.

NSB must amend its procedures to include specific procedures for hot tapping different forms of pipe.

10. § 192.723 Distribution systems: Leakage surveys.

(a)

(b) The type and scope of the leakage control program must be determined by the nature of the operations and the local conditions, but it must meet the following minimum requirements:

(1) A leakage survey with leak detector equipment must be conducted in business districts, including tests of the atmosphere in gas, electric, telephone, sewer, and water system manholes, at cracks in pavement and sidewalks, and at other locations providing an opportunity for finding gas leaks, at intervals not exceeding 15 months, but at least once each calendar year.

NSB's procedures were inadequate pertaining to determining and documenting business districts. The operator failed to document the classification of business districts in the Nuiqsut distribution system. During the inspection, field personnel stated that the entire system was considered a business district, but that was not documented in a record or procedure.

NSB must amend its procedures to include a process for determining and documenting business districts.

11. § 192.756 Joining plastic pipe by heat fusion; equipment maintenance and calibration.

Each operator must maintain equipment used in joining plastic pipe in accordance with the manufacturer's recommended practices or with written procedures that have been proven by test and experience to produce acceptable joints.

NSB's procedures were inadequate pertaining to heat fusion equipment maintenance. Specifically, the operator failed to include a procedures in the O&M manual regarding the maintenance of equipment for the joining of plastic pipe using heat fusion. Furthermore, the operator could not produce records that demonstrated continued maintenance on heat fusion equipment.

Therefore NSB's procedures were inadequate. NSB must amend its procedures to include maintenance for plastic heat fusion equipment.

Response to this Notice

This Notice is provided pursuant to 49 U.S.C. § 60108(a) and 49 C.F.R. § 190.206. 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, revised procedures, or a request for a hearing under §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 an Order Directing Amendment. If your plans or procedures are found inadequate, as alleged in this Notice, you may be ordered to amend your plans or procedures to correct the inadequacies (49 C.F.R. § 190.206). If you are not contesting this Notice, we propose that you submit your amended procedures to my office within **180** days of receipt of this Notice. This period may be extended by written request for good cause. Once the inadequacies identified herein have been addressed in your amended procedures, this enforcement action will be closed.

It is requested (not mandated) that North Slope Borough Energy Management maintains documentation of the safety improvement costs associated with fulfilling this Notice of Amendment (preparation/revision of plans, procedures) and submit the total to Dustin Hubbard, Director, Western Region, Pipeline and Hazardous Materials Safety Administration. In correspondence concerning this matter, please refer to **CPF 5-2023-038-NOA**, and for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

Dustin Hubbard,
Director, Western Region, Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration

Enclosure: *Response Options for Pipeline Operators in Enforcement Proceedings*

cc: PHP-60 Compliance Registry
PHP-500 M. Yeager (#22-254201)
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