



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

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

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

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

May 27, 2009

The Honorable Edward S. Itta
Mayor
North Slope Borough
P.O. Box 69
Barrow, AK 99723

CPF 5-2009-0011

Dear Mayor Itta:

On March 3-5, 2008, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), pursuant to Chapter 601 of 49 United States Code, inspected your facilities and records for your natural gas transmission line in Barrow, Alaska. PHMSA understands that the North Slope Borough (NSB) owns the entire Barrow transmission pipeline system and was, at the time of the inspection, responsible for operation and maintenance of the transmission pipeline facilities within the "Sheep Shed" building, including a key safety shut-off valve. During our inspection, Barrow Utilities and Electric Coop, Inc. (BUECI) was performing certain operation and routine maintenance tasks on the NSB's Barrow transmission line downstream of the "Sheep Shed". Since the inspection occurred, we understand that BUECI notified the NSB that it ceased operation and maintenance activities on your transmission line.

As a result of the inspection, it appears that you committed probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations. The items inspected and the probable violations are:

1. §192.199 Requirements for design of pressure relief and limiting devices.

(f) Be designed and installed so that the size of the openings, pipe, and fittings located between the system to be protected and the pressure relieving device, and the size of the vent line, are adequate to prevent hammering of the valve and to prevent impairment of relief capacity;

The current configuration of the SSD-310 relief valve discharge vent appears to be inadequate to prevent impairment of relief capacity. The size of the openings, pipe, and fittings located between the transmission pipeline to be protected and the pressure relieving device, including the size of the vent line, must be adequate to prevent impairment of relief capacity.

At the inspection, the inspector reviewed records that indicate the relief valve discharge vent is connected to a common manifold line that runs to the flare stack. This flare stack has several devices, namely gas separator overprotection devices, heat exchangers devices, ESD devices, thermal relief devices, etc. that all relieve into the same common manifold that runs to a flare stack. Industry practice (2002, National Fuel Gas Handbook, Section 5.8.5, Venting) requires pressure relief devices and pressure regulators to contain their own independent vent to the outside of the building and sized in accordance with the manufacture's instructions in order to prevent hazardous conditions, such as a higher discharge pressure in the discharge piping.

2. §192.201 Required capacity of pressure relieving and limiting stations.

(b) When more than one pressure regulating or compressor station feeds into a pipeline, relief valves or other protective devices must be installed at each station to ensure that the complete failure of the largest capacity regulator or compressor, or any single run of lesser capacity regulators or compressors in that station, will not impose pressures on any part of the pipeline or distribution system in excess of those for which it was designed, or against which it was protected, whichever is lower.

NSB failed to provide separate relief devices for the primary "EAST" gas handling facility and the secondary "Walakpa" gas handling facility. Both of these facilities include pressure regulating stations and feed into the Barrow natural gas transmission pipeline. As such, each facility must have overpressure protection to ensure that the failure of any portion of the regulator station will not impose pressures on any part of the Barrow pipeline in excess of those for which it was designed, or against which it was protected, whichever is lower. Records indicate that the SSD-310 valve provides overpressure protection for both the East and Walakpa gas handling facilities.

3. §192.703 General.

(a) No person may operate a segment of pipeline, unless it is maintained in accordance with this subpart.

(b) Each segment of pipeline that becomes unsafe must be replaced, repaired, or removed from service.

NSB failed to maintain the pressure relief valve SSD-310 in a safe condition. This valve is the primary over-pressure protection device for the gas transmission line that serves Barrow, Alaska. The SSD-310 valve was locked out of service on April 4, 2007, and has not been repaired and placed back into service. At the time of our inspection, there was a “locked out of service” tag hanging on the valve.

On April 4, 2007, a station pressure chart recorded a pressure drop in the gas transmission line. It was determined that a failure of the pneumatic system that operates the SD-310 valve caused the valve to partially close. The valve was locked open at that time to prevent the valve from fully closing and shutting off the gas service to Barrow. With SSD-310 locked out, there is no overpressure protection for the Barrow gas transmission pipeline.

4. §192.739 Pressure limiting and regulating stations: Inspection and testing.

(a) Each pressure limiting station, relief device (except rupture discs), and Pressure regulating station and its equipment must be subjected at intervals not exceeding 15 months, but at least once each calendar year, to inspections and tests to determine that it is—

(1) In good mechanical condition;

(2) Adequate from the standpoint of capacity and reliability of operation for the service in which it is employed;

(3) Except as provided in paragraph (b) of this section, set to control or relieve at the correct pressure consistent with the pressure limits of §192.201(a);; and

(4) Properly installed and protected from dirt, liquids, or other conditions that might prevent proper operation.

NSB failed to provide inspection records for each pressure limiting station, relief device and regulating station for the following devices:

- Within the primary “South” gas handling facility for the year ‘07:
 - PCV-214A- Regulator, # 14926755
 - PCV-214B- Regulator, # 14926756
- Within the “Walakpa” secondary gas handling facility for the years ’07, ’06 and ’05.

- PIC-237B, # 13023273
- PIC-2, # 12862020

NSB could not demonstrate that these pressure control devices met all of the requirements of 192.793(a).

Proposed Compliance Order

With respect to items 1, 2, 3 and 4, pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration proposes to issue a Compliance Order to the NSB. 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 Compliance 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). 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.

In your correspondence on this matter, please refer to **CPF 5-2009-0011** and for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,



Chris Hoidal
Director, Western Region
Pipeline and Hazardous Materials Safety Administration

cc: PHP-60 Compliance Registry
PHP-500 J. Strawn (#120687)

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

PROPOSED COMPLIANCE ORDER

Pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to issue to the North Slope Borough (NSB) a Compliance Order incorporating the following remedial requirements to ensure the compliance of the NSB with the pipeline safety regulations:

1. In regard to Item Number 1 of the Notice pertaining to NSB's failure to provide a pressure relief discharge vent with adequate capacity for the SSD-310 valve, NSB shall modify its vent to provide adequate capacity or shall provide records that demonstrate that the gas handling relief facilities are adequately designed and that the vent line is properly designed and adequate to prevent hammering of the valve and to prevent impairment of relief capacity.
2. In regard to Item Number 2 of the Notice pertaining to NSB's failure to provide separate relief devices for the primary "EAST" gas handling facility and the secondary "Walakpa" gas handling facility, NSB shall install separate relief devices at the primary "EAST" gas handling facility and the secondary "Walakpa" gas handling facility in accordance with requirements of § 192.201(b).
3. In regard to Item Number 3 of the Notice pertaining to NSB's pressure relief valve SSD-310, which was found to have not been properly maintained and which was in an unsafe configuration, NSB shall establish and implement maintenance processes and record keeping for the replacement relief valve (as required to be replaced by Paragraph 1, above), according to Part 192.
4. In regard to Item Number 4 of the Notice pertaining to NSB's failure to provide records for each pressure limiting station, relief device and Pressure regulating station, NSB shall develop and implement proper maintenance processes and record keeping for this equipment.
5. Items 1 through 4 shall be completed within 90 days of receipt of the Final Order. Within 120 days of receipt of the Final Order, NSB shall submit evidence that these Items were completed to Chris Hoidal, Director, Western Region, Pipeline and Hazardous Materials Safety Administration, for approval.
6. NSB shall maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Chris Hoidal, Director, Western Region, Pipeline and Hazardous Materials Safety Administration. NSB shall report costs 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.