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

January 15, 2019

Mr. Scott K. Danner
Director
North Slope Borough Public Works
P.O. Box 350
Utqiagvik, AK 99723

CPF 5-2019-0002

Dear Mr. Danner:

On March 27 through March 31, 2017 a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), pursuant to Chapter 601 of 49 United States Code (U.S.C.), inspected your Barrow Gas Field Transmission Line in Utqiagvik, Alaska.

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 violation(s) are:

1. **§ 192.463 External corrosion control: Cathodic protection.**

   (a) Each cathodic protection system required by this subpart must provide a level of cathodic protection that complies with one or more of the applicable criteria contained in appendix D of this part. If none of these criteria is applicable, the cathodic protection system must provide a level of cathodic protection at least equal to that provided by compliance with one or more of these criteria.

Appendix D to Part 192—Criteria for Cathodic Protection and Determination of Measurements
I. Criteria for cathodic protection— A. Steel, cast iron, and ductile iron structures.
(1) A negative (cathodic) voltage of at least 0.85 volt, with reference to a saturated copper-copper sulfate half cell. Determination of this voltage must be made with the protective current applied, and in accordance with sections II and IV of this appendix.

The Operator produced a contracted study by Taku Engineering, LLC from October 2016 which showed that the pipeline was tested for cathodic protection (CP). The study demonstrated that the current configuration of the CP system on the transmission line does not allow CP readings to be properly tested as required by 49 CFR 192. The configuration of the CP system featured anode ribbons directly bonded to the buried pipeline. No consideration for voltage drop due to soil resistivity (IR Drop) could be considered as magnesium anodes were bonded uninterruptedly, directly to pipe. Pipe to soil measurements were recorded despite the inability to remove the IR Drop. Although roughly 50% of the pipeline's "on" potential was above the -850 mV structure to soil criterion, the readings are technically inaccurate because of the inability to remove the IR Drop, which, when calculated, would ultimately reduce the value of the "on" potential. Accounting for the IR Drop would result in an even larger percentage (more than 50%) of the line not meeting the CP criteria. The Operator completely failed to demonstrate that the pipeline was tested at least once each calendar year, but with intervals not exceeding 15 months, to determine whether the cathodic protection meets the regulatory requirements of §192.465(a).

2. § 192.465 External corrosion control: Monitoring.

(d) Each operator shall take prompt remedial action to correct any deficiencies indicated by the monitoring.

The Operator provided no documented efforts to promptly correct identified deficiencies included in the *October 2016 Barrow Transmission Natural Gas Pipeline Cathodic Protection Survey Report* (Study) by Taku Engineering, LLC. The Study illustrated deficiencies in maintaining cathodic protection over most of the pipeline.

3. § 192.479 Atmospheric corrosion control: General.

(a) Each operator must clean and coat each pipeline or portion of pipeline that is exposed to the atmosphere, except pipelines under paragraph (c) of this section.
(b) Coating material must be suitable for the prevention of atmospheric corrosion.

The Operator failed to coat each pipeline or portion of pipeline that is exposed to the atmosphere. For example, most above ground areas have no coating whatsoever and incipient pitting has occurred. Where coating may have once existed, there were more areas that had lost coating than had retained coating. Valve Stations had significant coating loss, incipient pitting, and metal on metal supports. The lack of any coating and extreme coating loss on the pipeline and facilities does not comport with the requirement to clean and coat each portion of the pipeline that is exposed to the atmosphere.

4. §192.614 Damage prevention program.

(a)....
(c) The damage prevention program required by paragraph (a) of this section must, at a minimum:
(1) Include the identity, on a current basis, of persons who normally engage in excavation activities in the area in which the pipeline is located.
(2) Provides for notification of the public in the vicinity of the pipeline and actual notification of the persons identified in paragraph (c)(1) of this section of the following as often as needed to make them aware of the damage prevention program:
(i) The program's existence and purpose; and
(ii) How to learn the location of underground pipelines before excavation activities are begun.
(3) Provide a means of receiving and recording notification of planned excavation activities.
(4) If the operator has buried pipelines in the area of excavation activity, provide for actual notification of persons who give notice of their intent to excavate of the type of temporary marking to be provided and how to identify the markings.
(5) Provide for temporary marking of buried pipelines in the area of excavation activity before, as far as practical, the activity begins.
(6) Provide as follows for inspection of pipelines that an operator has reason to believe could be damaged by excavation activities:
(i) The inspection must be done as frequently as necessary during and after the activities to verify the integrity of the pipeline; and
(ii) In the case of blasting, any inspection must include leakage surveys.

The Operator's collection of fliers, annual barbecue planning, presentations, and emails, when combined, fails to meet the standards for a damage prevention program under §192.614. Specifically, the following requirements were not met: (1) Include the identity, on a current basis, of persons who normally engage in excavation activities in the area in which the pipeline is located, (3) Provide a means of receiving and recording notification of planned excavation activities, (4) If the operator has buried pipelines in the area of excavation activity, provide for actual notification of persons who give notice of their intent to excavate of the type of temporary marking to be provided and how to identify the markings, (5) Provide for temporary marking of

buried pipelines in the area of excavation activity before, as far as practical, the activity begins, and (6) Provide as follows for inspection of pipelines that an operator has reason to believe could be damaged by excavation activities: (i) The inspection must be done as frequently as necessary during and after the activities to verify the integrity of the pipeline; and (ii) In the case of blasting, any inspection must include leakage surveys.

5. § 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)....
(4) The availability of personnel, equipment, tools, and materials, as needed at the scene of an emergency.

The Operator has materials and tools for emergencies, but they are not listed in the procedures as to quantity, location, and availability.

6. §192.615 Emergency plans.

(a)....
(b) Each operator shall:
(1) Furnish its supervisors who are responsible for emergency action a copy of that portion of the latest edition of the emergency procedures established under paragraph (a) of this section as necessary for compliance with those procedures.
(2) Train the appropriate operating personnel to assure that they are knowledgeable of the emergency procedures and verify that the training is effective.

The Operator was unable to provide any records indicating the Operator trained appropriate operating personnel to ensure that they are knowledgeable of the emergency procedures nor records verifying that the training is effective. Further, the operator admits that they do not perform such training or verification.

7. § 192.615 Emergency Plans.

(a)....
(c) Each operator shall establish and maintain liaison with appropriate fire, police, and other public officials to:
(1) Learn the responsibility and resources of each government organization that may respond to a gas pipeline emergency;
(2) Acquaint the officials with the operator's ability in responding to a gas pipeline emergency;
(3) Identify the types of gas pipeline emergencies of which the operator notifies the officials; and
(4) Plan how the operator and officials can engage in mutual assistance to minimize hazards to life or property

The Operator failed to liaise with appropriate fire, police, and other public officials in compliance with §192.615(c)(1)-(4). The Operator is required to learn the responsibility and resources of each government organization that may respond to a gas pipeline emergency, acquaint the public officials with the operator's ability in responding to a gas pipeline emergency, identify the types of gas pipeline emergencies of which the operator might notify the officials, and plan how the operator and officials can engage in mutual assistance to minimize hazards to life or property. Although the operator provided documents, including fliers, an operations agenda, and a slide presentation for the Operator's 2016 annual barbecue, which was open to all the citizens of Utqiagvik/Barrow, the Operator produced no records demonstrating that any liaison with public officials occurred, as required by regulation.

8. § 192.709 Transmission lines: Record keeping.

Each operator shall maintain the following records for transmission lines for the periods specified:
(a) The date, location, and description of each repair made to pipe (including pipe-to-pipe connections) must be retained for as long as the pipe remains in service.

The operator did not produce procedures in effect for 2013 pipeline repair work in accordance with the requirement to keep a "description of each repair" consistant with §192.709(a). The operator stated that most historical records were destroyed when a change occurred in the operator-contractor responsible for the Barrow Gas Transmission pipeline. After destruction of the procedures, new procedures were developed in 2014, updated annually, and most recently, updated in June 2016. The report on the repair work (published in October 2013, for work done September 18-30, 2013 entitled *Coffman Barrow Gas Transmission Pipeline Integrity Assessment Fall 2013*) contained only some procedures for certain parts of the project work package, but no complete operator procedures for the repair were produced. No other procedures were produced for any other repairs. The Operator needs to examine any in-line inspection-

identified repairs that they do not have documentation for and complete record keeping and testing, if needed.

9. § 192.709 Transmission lines: Record keeping.

Each operator shall maintain the following records for transmission lines for the periods specified:
(a)....
(c) A record of each patrol, survey, inspection, and test required by subparts L and M of this part must be retained for at least 5 years or until the next patrol, survey, inspection, or test is completed, whichever is longer.

The Operator failed to provide complete records for the past 5 years of testing of emergency valves as required by § 192.709(c). Regarding inspection and partial operation of emergency transmission line valves, the operator produced complete records for 2014 & 2016, spotty records for 2015 and 2011, and no records for 2012 and 2013. Some of the provided records were nullified due to the operator using unqualified personnel to inspect and partially operate emergency transmission line valves.

10. §192.805 Qualification program.

Each operator shall have and follow a written qualification program. The program shall include provisions to:
(a)....
(h) After December 16, 2004, provide training, as appropriate, to ensure that individuals performing covered tasks have the necessary knowledge and skills to perform the tasks in a manner that ensures the safe operation of pipeline facilities; and....

Pursuant to §192.805(h), proper qualification of testing personnel was not demonstrated by the Operator for the 2013 repair work on the Barrow Gas Transmission pipeline. Records included testing by a guided wave operator. The Operator produced qualification records that indicated the guided wave operator was trained and tested to perform the covered task of guided wave operation. However, no records were produced that demonstrated that the guided wave operator was evaluated and could recognize and react to abnormal operating conditions as required by the definition of "qualified" under §192.803.

11. § 192.807 Recordkeeping

Each operator shall maintain records that demonstrate compliance with this subpart.

(a)....
(b)Records supporting an individual's current qualification shall be maintained while to individual is performing the covered task.

The Coffman Barrow Gas Transmission Pipeline Integrity Assessment Fall 2013 Guided Wave operator was qualified for guided wave but not in abnormal operating conditions. An NSBEM employee who performed covered tasks also had no record of being trained on abnormal operating conditions. This finding is pervasive through both contractors and employees.

Proposed Compliance Order

Under 49 U.S.C. § 60122 and 49 CFR § 190.223, you are subject to a civil penalty not to exceed $213,268 per violation per day the violation persists, up to a maximum of $2,132,679 for a related series of violations. 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. For violations occurring prior to November 2, 2015, the maximum penalty may not exceed $200,000 per violation per day, with a maximum penalty not to exceed $2,000,000 for a related series of violations.

We have reviewed the circumstances and supporting documents involved in this case, and have decided not to propose a civil penalty assessment at this time.

With respect to item(s) 1 and 2 pursuant to 49 U.S.C. § 60118, the Pipeline and Hazardous Materials Safety Administration proposes to issue a Compliance Order to North Slope Borough Public Works. Please refer to the *Proposed Compliance Order*, which is enclosed and made a part of this Notice.

Warning Items

With respect to item(s) 3 through 11 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 these item(s). Failure to do so may result in additional enforcement action.

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).

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 5-2019-0002** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

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

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

cc: PHP-60 Compliance Registry
PHP-500 J. Owens (# 155561)

PROPOSED COMPLIANCE ORDER

Pursuant to 49 U.S.C. § 60118, the Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to issue to the North Slope Borough Public Works a Compliance Order incorporating the following remedial requirements to ensure the compliance of the North Slope Borough Public Works with the pipeline safety regulations:

1. In regard to Item Number 1 of the Notice pertaining to the gas line not meeting cathodic protection criteria, the Operator should ensure that the entire pipeline meets cathodic protection criteria as required by 49 CFR 192.

2. In regard to Item Number 2 of the Notice pertaining to the failure of the Operator correct the deficiencies included in the Taku Engineering *October 2016 Barrow Transmission Natural Gas Pipeline Cathodic Protection Survey Report* (Study) by Taku Engineering, LLC, the Operator must follow the recommendations in the Study pertaining to the Operator's 49 CFR 192 regulated gas line and facilities: The Operator must modify the connections for the bonded below grade anode ribbon to the transmission line with interruptible connections and repair by replacement the failed structure lead wires at all test stations.

3. Within 270 days after receipt of the Final Order, the North Slope Borough Public Works shall comply with Items 1 & 2 of this compliance order and submit documentation of compliance to the Director for review and approval. Item 2 of this compliance order is closed only upon written approval by the Director of the Western Region.

4. It is requested (not mandated) that the North Slope Borough Public Works maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Chris Hoidal, Acting Director, Western 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.