NOTICE OF PROBABLE VIOLATION
PROPOSED CIVIL PENALTY
and
PROPOSED COMPLIANCE ORDER

VIA ELECTRONIC MAIL TO: timothy.russell@bueci.org

December 27, 2023

Mr. Timothy Russell
General Manager
Barrow Utilities and Electric Cooperative, Inc.
P.O. Box 449
Barrow, AK 99723

CPF 5-2023-046-NOPV

Dear Mr. Russell:

From November 16 through November 18, 2022, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), pursuant to Chapter 601 of 49 United States Code (U.S.C.), inspected Barrow Utilities and Electric Cooperative, Inc., distribution systems, specifically, the Barrow Utilities & Electric Cooperative Inc.'s (BUECI) distribution system (Barrow distribution system) located in Utqiagvik (Barrow), Alaska and the Naval Arctic Research Laboratory's (NARL) distribution system (NARL distribution system) located north of 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 violations are:

1. § 191.11 Distribution system: Annual report.

(a) *General*. Except as provided in paragraph (b) of this section, each operator of a distribution pipeline system must submit an annual report for that system on DOT Form PHMSA F 7100.1–1. This report must be submitted each year, not later than March 15, for the preceding calendar year.

BUECI failed to provide an accurate annual report for the year 2021 as is required by § 191.11.

The report was not consistent with the information gathered by PHMSA during the inspection, where PHMSA discovered at least seven different instances of BUECI documenting locate requests for the year 2021[a]. Because BUECI failed to submit an accurate annual report, it is in violation of § 191.11.

2. § 192.161 Supports and anchors.

(a) . . . .
(c) Each support or anchor on an exposed pipeline must be made of durable, noncombustible material and must be designed and installed as follows…

BUECI failed to support exposed pipeline with noncombustible material as is required by § 192.161. Specifically, wood material, which is a combustible material, was observed supporting various portions of the BUECI & NARL distribution pipelines

During the inspection, valve stations along the right-of-way (ROW) for the Barrow distribution system, had 4x4 beams of wood supporting valves and piping[b]. Also, the pressure reduction and metering box for the Ilisagvik college on the NARL distribution system had a 2x4 piece of wood supporting the piping and equipment[c]. Because wood is a known combustible material, the supports observed in the field are not consistent with code requirements for noncombustible material supports. Accordingly, BUECI is in violation of § 192.161.

3. § 192.273 General.

(a) . . . .
(b) Each joint must be made in accordance with written procedures that have been proven by test or experience to produce strong gastight joints.

BUECI failed to demonstrate joints were made in accordance with written procedures that had been qualified as is required by § 192.273. Specifically, BUECI did not provide plastic joining procedures or procedure qualification documentation.

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[a] Exhibit N-1 through N-7: Photos of BUECI's completed Form G20, Request for Locate
[b] Exhibit G-1 and G-2, Photos of BUECI ROW
[c] Exhibit G-3, Photo of Ilisagvik College's Regulator and Metering station

Annual Reports from years 2019 through 2021indicated new miles of plastic main were installed as well as an increased number of plastic service lines were installed in the distribution systems[d]. Annual Report from 2019, Part C, stated 9 total hazardous [plastic] service line failures were attributed to pipe, weld or joint failure. Annual Report from 2021, Part C, stated one [plastic] mainline failure occurred due to pipe, weld or joint failure. BUECI did not provide plastic pipe joining procedures, and PHMSA could not verify plastic piping installed between 2019 and 2021 was constructed without a qualified plastic joining procedure. Accordingly, BUECI is in violation of § 192.273,

4. § 192.287 Plastic pipe: Inspection of joints.

No person may carry out the inspection of joints in plastic pipes required by §§ 192.273(c) and 192.285(b) unless that person has been qualified by appropriate training or experience in evaluating the acceptability of plastic pipe joints made under the applicable joining procedure.

BUECI did not have documentation demonstrating the inspection of joints in plastic pipe was conducted by a qualified person as is required by § 192.287. Specifically, BUECI could not provide training records or evidence of documented experience in evaluating the acceptability of plastic pipe joints for plastic pipe inspectors.

BUECI could not provide evidence to suggest that plastic piping, installed between 2019 and 2021, was inspected by a qualified individual. Accordingly, BUECI is in violation of § 192.287.

5. § 192.355 Customer meters and regulators: Protection from damage.

(a) . . . .
(b) *Service regulator vents and relief vents*. Service regulator vents and relief vents must terminate outdoors, and the outdoor terminal must—
(1) . . . .
(2) Be located at a place where gas from the vent can escape freely into the atmosphere and away from any opening into the building; and

BUECI failed to ensure each meter installed was protected from damage as is required by § 192.355. Specifically, the NARL distribution system's metering and service-regulator box for the Ilisagvik College was installed in an inadequately vented box against a building, and was trapping natural gas fumes within the box, creating a hazardous environment.

During the inspection, the metering and service-regulator box for the Ilisagvik college, on the NARL distribution system, had poor ventilation. Exhibit H-1 is a photograph of the outside of the box housing containing the meters and regulators for the Ilisagvik college. As seen from the outside there appeared to be several vents and holes in the box, including a vertical vent near the center, a side pipe vent (left side), and seven small ventilation holes on each side of the box's walls below the roof line (both right & left side – shown in Exhibit H-6). Exhibit H-2 is a

[d] Exhibit M-1 through M-3: DOT Annual Report for 2019, 2020, & 2021, respectively

photograph taken of the inside of the housing box and showed a small hole on the ceiling surface in the interior of the box, which may be connected to the vertical vent protruding from the roof shown in Exhibit H-1. This hole was too small to provide adequate ventilation to the box as demonstrated by the significant concentration of gas that was discovered to be trapped inside the box during the inspection. This was determined by the substantial odor of mercaptan that was detected by PHMSA inspectors when the box was opened. Exhibit H-3 shows the interior of the left-hand wall didn't have openings that corresponded with the holes observed from the photo of the outside wall (Exhibit H-6). Exhibit H-4 shows the interior right-hand wall did not contain corresponding openings to the holes observed on the outside wall in Exhibit H-1. Exhibit H-5 shows the interior view of the vent pipe protruding through the left-hand inside wall (outside view of vent pipe shown in Exhibit H-6). Exhibit H-5 shows the vented pipe enters the box via the white painted pipe, connects to a 90 degree elbow, also painted white, then extends upward with piping that terminates inside the box. However, upon closer inspection, the top of the internal side of the vent pipe a plug was installed to prevent inside air from venting through the vent pipe.

During the inspection the box doors were opened by the operator, and a significant odor of mercaptan was detected by two PHMSA employees and the operator indicating there was a high concentration of natural gas in the box. This concentration of natural gas was allowed to vent to atmosphere before PHMSA personnel could inspect the box. It was not known if the natural gas was allowed to concentrate in the box due to poor ventilation or there was an active leak. The operator stated they would immediately dispatch a technician to the site to conduct a leak test and determine the source of the possible leak. BUECI did not communicate the results, if any, from the leak test with PHMSA.

This finding was considered a moderate safety hazard to life and property due to its proximity to the Ilisagvik College and the ability for the box to contain natural gas. Accordingly, BUECI is in violation of § 192.355.

6. § 192.481 Atmospheric corrosion control: Monitoring.

(a) Each operator must inspect and evaluate each pipeline or portion of the pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows:

Pipeline type:	Then the frequency of inspection is:
(1) Onshore other than a Service Line	**At least once every 3 calendar years, but with intervals not exceeding 39 months.**
(2) Onshore Service Line	**At least once every 5 calendar years, but with intervals not exceeding 63 months, except as provided in paragraph (d) of this section.**

(b) . . . .
(c) If atmospheric corrosion is found during an inspection, the operator must provide protection against the corrosion as required by § 192.479.

BUECI did not inspect each aboveground portion of the Barrow and NARL distribution systems for atmospheric corrosion at the required frequencies as is required by § 192.481.

Upon review of the records provided to PHMSA, it did not appear that the entire Barrow and NARL distribution systems had been inspected over a three-year period. Records reviewed for years 2021 and 2022 documented atmospheric corrosion inspections for some portions of the distribution systems but didn't account for all of the aboveground valve stations in the systems. The 2021 and 2022 records demonstrated BUECI only documented inspections for the same few valve stations each year, and all provided documentation did not aggregate to a full system inspection. BUECI did not provide atmospheric corrosion inspection records prior to 2021.

Additionally, BUECI's Form 12 Atmospheric Corrosion Control Inspection record for years 2021 and 2022 were incomplete and did not contain sufficient detail to demonstrate the adequacy of corrosion control measures or that a corrosive condition did not exist[e]. Atmospheric corrosion records for the years 2021 and 2022 only recorded the date, the location, the inspector name, designation of line, and the line size. No other data was recorded on these forms pertaining to an assessment of atmospheric corrosion, the condition of the equipment, the severity of the corrosion, nor whether repair was recommended.

During the inspection, PHMSA observed numerous valve stations within the BUECI and NARL systems with atmospheric corrosion present. These conditions were not reflected in the atmospheric corrosion records reviewed for the years 2021 & 2022. Specifically, atmospheric corrosion records for NARL's valve station 6 did not indicate the actual condition of the corresponding piping[f].

[e] Exhibits L-1 through L-4: Photos of BUECI's Atmospheric Corrosion records
[f] Exhibits F-13, F-17, and F-18: Photos of NARL's valve station 6

Pipeline conditions observed in the field during the 2022 inspection indicated aboveground piping needed to be recoated to protect piping and valve stations from additional corrosion. The corrosion observed on aboveground piping and valve stations during the 2022 inspection exceeded a light surface oxide in some cases, and BUECI had not completed evaluation or repairs of the corrosion.

BUECI failed to clean and coat each pipeline or portion of the pipeline that was exposed to the atmosphere[g]. Corrosion observed on valve bodies and pipes was far beyond a "light surface oxide" and appeared to have been neglected for many years. The NARL system valve station 5, piping leading to the Ilisagvik college, and pipe hangers were all severely corroded. Piping, regulators, and valves within the regulator and metering box at the Ilisagvik college had significant corrosion[h]. NARL valve stations 1, 3, 4, 5, and 6 were corroded with paint flaking and significant rust. A valve observed at the Barrow pressure reducer valve (PRV) station had flange bolts with severe flaking rust. A valve observed at the NARL PRV station had flaking paint and heavy rust on the valve body. The NARL PRV station outlet piping was corroded with paint flaking and significant rust.

Accordingly, BUECI is in violation of § 192.481.

7. § 192.491 Corrosion control records.

> **(a) . . . .**
> **(c) Each operator shall maintain a record of each test, survey, or inspection required by this subpart in sufficient detail to demonstrate the adequacy of corrosion control measures or that a corrosive condition does not exist. These records must be retained for at least 5 years with the following exceptions…**

BUECI failed to provide records indicating gas quality sampling had taken place to ensure no corrosive gas was being transported by the Barrow and NARL distribution systems as is required by § 192.491. BUECI could not demonstrate the contents of its gas were non-corrosive.

BUECI's O&M manual stated, "Receive periodic reports from the gas supplier of the contents of the produced gas[i]. In addition, receive a hydrogen sulfide analysis that indicates non-detectable by the laboratory. Retain this analysis in the filing room." Because BUECI failed to maintain records regarding their corrosion control measures, BUECI is in violation of § 192.491.

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[g] Exhibits F-1 through F-16: Photos of the NARL distribution system's condition
[h] Exhibit H-1 through H-6: Photos of the Ilisagvik College regulator and metering station
[i] Exhibit A-1: BUECI O&M manual, Section 10.8, Internal Corrosion Control, page 63 of 125, item 4)

8. § 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.

BUECI failed to review and update its O&M manual at intervals not exceeding 15 months, but at least once each calendar year as is required by § 192.605. Specifically, there were no reviews of the operations and maintenance procedures documented prior to 2022.

BUECI's O&M manual revision log only contained Revision 0 from February, 2022. No other annual revisions prior to 2022 were listed, demonstrating previous reviews and revisions of the O&M manual were completed on an annual basis. Accordingly, BUECI is in violation of § 192.605.

9. § 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.

BUECI failed to follow their own procedure to ensure supervisor/managerial staff acknowledged, evaluated, and properly filed PRV station regulator inspections as is required by § 192.605

BUECI's O&M Manual stated, "BUECI completes the following steps when performing an inspection: ... 5) Report all inspections made under this section in writing on Form G03 – Annual PRV Station Regulator Inspection Report to the GM, or designee, for evaluation and proper filing."[j]

Numerous instances were discovered where the operations supervisor/manager and/or gas foreman's signatures were absent from the Annual PRV Regulator Valve Inspection Report, Form G03, for the years 2020 through 2022[k]. PHMSA could not determine if these forms were acknowledged, evaluated, and properly filed by supervisory/managerial staff because the signature indicating the review was completed was left blank. Accordingly, BUECI is in violation of § 192.605.

10. § 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.
(8) Periodically reviewing the work done by operator personnel to determine the effectiveness, and adequacy of the procedures used in normal operation and maintenance and modifying the procedures when deficiencies are found.

[j] Exhibit A-1: O&M Manual, Section 9.6.1 Inspection and Testing [Pressure Limiting and Regulating Stations], page 51 of 125
[k] Exhibits I-1 through I-10: Photos of Annual PRV Regulator Valve Insp Report Form G03

BUECI did not complete periodic reviews of work done by operator personnel to determine the effectiveness and adequacy of their procedures as is required by § 192.605.

PHMSA observed issues during the inspection such, as incorrect use of forms, inadequate leakage detection, and incorrect use of odorization equipment, which could have been discovered and addressed via this process of evaluation for effectiveness and adequacy of procedures.

For example, the Annual Report from 2019, Part C, indicated 9 total hazardous [plastic] service line failures were attributed to pipe, weld, or joint failure. Annual Report from 2021, Part C, indicated 1 [plastic] mainline failure occurred due to pipe, weld or joint failure. BUECI did not demonstrate these failures were evaluated to determine if personnel effectiveness or procedure adequacy could have contributed to these failures.

Accordingly, BUECI is in violation of § 192.605.

11. § 192.615 Emergency plans.

(a) . . . .
(b) Each operator shall:
(2) Train the appropriate operating personnel to assure that they are knowledgeable of the emergency procedures and verify that the training is effective.

BUECI did not complete the required training on emergency procedures as is required by § 192.615. BUECI did not complete documentation demonstrating the effectiveness of the emergency training. BUECI could not provide records of the last personnel emergency training or emergency training effectiveness evaluations.

BUECI's own O&M manual states, "Periodically, the OM [operations manager] schedules an employee meeting to discuss and train employees in emergency procedures."[1] Paragraph 7 specifically identifies the recording requirement which states “7) For recordkeeping, the OM maintains records of attendance and items discussed at each meeting."

On March 11, 2020, a home explosion occurred in Utqiagvik (Barrow). It was determined the leak and subsequent ignition originated from within the home. The 2019 Annual report indicated 9 pipe, weld, or joint failures on service lines, and 2 corrosion caused failures. The 2020 Annual report indicated there were 4 line strikes on service lines. The 2021 Annual report indicated there was a pipe, weld, or joint failure on a mainline. BUECI did not complete emergency training to ensure their operator personnel were effectively trained to respond to emergencies and events like these.

Accordingly, BUECI is in violation of § 192.615.

[1] Exhibit A-1: O&M Manual, Section 7.19 Training Procedure, Page 46 of 125

12. § 192.615 Emergency plans.

(a) . . . .
(b) Each operator shall:
(3) Review employee activities to determine whether the procedures were effectively followed in each emergency.

BUECI failed to complete the required documentation indicating a review of employee activities was accomplished following an emergency as is required by § 192.615

BUECI's own O&M manual states, "The GM, or designee, reviews employee activities to determine whether the procedures were effectively followed in each emergency and documents this review on Form G21."[m]

There was no evidence to suggest that BUECI completed an incident report, Form G21, following the March 11, 2020, home explosion in Utqiagvik (Barrow), the 11 total line failures in 2019, the 4 line strikes in 2020, or the mainline failure in 2021. Accordingly, BUECI is in violation of § 192.615.

13. § 192.615 Emergency plans.

(a) . . . .
(c) Each operator must establish and maintain liaison 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, as well as 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.

BUECI did not maintain liaison with appropriate entities as is required by § 192.615. During the inspection, BUECI did not provide records of meetings, training sessions, or other related activities to indicate liaison was maintained with appropriate fire, police, and other public officials and utility owners.

BUECI's O&M manual states " 4) The GM, or designee, implements and coordinate this program. BUECI files a record of all meetings, training sessions, and other related activities. Annually (not to exceed 15 months), the GM, or designee, also performs a BUECI self-assessment on the progress of this program and make any necessary changes."[n] Because BUECI did not maintain liaison with appropriate entities as is required, BUECI is in violation of § 192.615.

[m] Exhibit A-1: O&M Manual, Section 8.2 Procedures [Investigation of Failures], page 47 of 125
[n] Exhibit A-1: O&M Manual, Section 12.4 Liaison with Public Officials, page 68 of 125, Paragraph 4

14. § 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…

BUECI had several violations of § 192.625 regarding the odorization of gas.

Item 1: BUECI did not document the odorization of gas for the year 2021. BUECI's own O&M manual indicated "Form G10 – Odorometer Recordings…Frequency…Weekly." The manual also indicated "Form G10 – Odorometer Recordings…Retention…5 years."[o]

Item 2: BUECI failed to follow its procedure to properly document the odorization of gas for the year 2020. Odorant (sniff-test) records for 2020[p] were reviewed and found inconsistent with procedures. Exhibit A-1, O&M manual, Section 5.5.1.2, Range of Measurement, clearly states when the concentration of the gas is between 0.04% and 0.4%, the Black (Glass Float) ball measurement is to be used. If the concentration of the gas is between 0.2% and 1.1% then the Silver (Metal float) ball measurement is to be used[q]. Records showed for the year 2020, every odorometer measurement contained a Black Float percentage of "0.1%" as well as a Silver Float percentage of "0.1%"[q]. BUECI did not follow its procedure and incorrectly recorded the concentration of gas when odor was detected within the gas because they didn't have knowledge of how to take accurate odorant measurements.

Item 3: Odorometer measurement records for the year 2020 illustrated each row of recorded data contained a "2" written into the far-right margin of the document. These numbers recorded on the far-right margin had no title, significance, or meaning attributed to them. PHMSA could not determine if this number "2" was to signify the odor intensity level per the O&M manual or if it was the number "2" taken from the Odorometer's graduated cylinder scale[r]. BUECI representatives were unable to explain the answer during the inspection. The operator representative wasn't able to clarify and verify with PHMSA inspectors what the data meant.

Item 4: Upon observation of the Odorometer equipment utilized by BUECI, PHMSA noted the equipment had no calibration sticker or any other indication the equipment had been recently calibrated. BUECI could not produce calibration records to demonstrate the equipment was recently calibrated and operating correctly. Exhibit D-8 is an operation

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[o] Exhibit A-1: O&M manual, Section 9.4, Schedule of Inspections and Reports, Table 9-1, page 49 of 125
[p] Exhibit D-1 through D-4: Photos of odorometer readings
[q] Exhibit A-1: O&M manual, Section 5.5.1.2, Range of Measurement, page 28 of 125
[r] Exhibit A-1: O&M manual, Section 5.5.1.1, Odor Characteristics at Standard Concentration, page 28 of 125, Item 3, 1) Ask the observers to sniff the effluent air stream and rate the odor intensity as one of the following: (1) Absent (2) Barely detectable (3) Readily detectable (4) Strong (5) Very strong (obnoxious)". BUECI utilized a Bacharach Odorometer with an analog graduated cylinder scale which goes up to 10 in increments of 2.

manual for a similar type of Bacharach Odorometer like the one used by BUECI. Bacharach odorometer manual states, "To ensure the instrument's continued accuracy and reliability, Bacharach recommends periodic calibration by an authorized Bacharach Service Facility. For best results, the instrument should be initially calibrated after no longer than one year of service. Thereafter, the calibration interval should be set as needed to ensure continued reliability."[s] BUECI personnel stated they have used the same Bacharach odorometer, as shown in Exhibit D-6, for decades; however, BUECI didn't have any records documenting calibration of its Odorometer.

Accordingly, BUECI is in violation of § 192.625.

15. § 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…

BUECI's odorant test station environment was inadequate and failed to comply with the requirements of § 192.625. Specifically, two different conversion charts/graphs were adjacent to the testing station. A conversion chart is required to convert the odorometer's analog graduated cylinder reading, scaled from 0 to 10, into a % of odorant present within the gas distribution system. The converted % of odorant present in the gas is then documented onto Form G10, Odorometer Readings.

BUECI's demonstrated sampling of % odorant within the combustible gas was not adequate. During the field inspection, a BUECI representative escorted PHMSA personnel to the Odorometer at the "Garage" building, where the odorization sampling is normally conducted. The "Garage" is a large warehouse building located near the southwest corner of the airport runway in Utqiagvik. The BUECI representative turned on the Odorometer machine, allowed gas to flow, and proceeded to demonstrate to PHMSA personnel how BUECI operators normally take readings. The representative adjusted the Odorometer until they could smell gas. The black (glass float) ball, within the graduated glass measuring tube, hovered just below the number "2" level marking as shown on Exhibit D-5 and D-6. After reviewing prior records, Exhibit D-1 through D-4, and observing the current recording chart at the Odorometer location, it was observed that all the charts were filled out as "0.1%" for the black (glass float) and "0.1%" for

[s] Exhibit D-8, Bacharach odorometer manual, page 8 of 9, Section 9 Service

the metallic (silver float). The representative could not describe how the Odorometer reading of "2" was estimated/calculated to be "0.1%" for the black (glass float) and also "0.1%" for the metallic (silver float). At the location of the odorometer reading station there were two different "conversion" charts/graphs, as shown in Exhibit D-5. One conversion chart/graph was located on the inside door of the Odorometer, as shown in Exhibit D-6, while the other conversion chart/graph was located on the wall just behind the Odorometer, as shown in Exhibit D-7. The representative was not familiar with either of the conversion charts/graphs nor knew which one was correct. These conversion charts appear similar; however, they are dissimilar with respect to their respective curves. Furthermore, the representative could not describe the significance of the percent gas recorded, what the difference between the glass float (black) and the metal float (silver) was, nor at what percent would require immediate action to be taken for an AOC or even an emergency.

16. § 192.707 Line markers for mains and transmission lines.

(a) . . . .
(c) *Pipelines aboveground.* Line markers must be placed and maintained along each section of a main and transmission line that is located aboveground in an area accessible to the public.

BUECI failed to provide adequate signage for aboveground piping infrastructure as is required by § 192.707

There were two observed system inadequacies:

Item 1: Barrow distribution system:

BUECI failed to include mandatory information containing the name of the operator and a telephone number where the operator can be reached at all times. Inadequate signage for various aboveground valve stations illustrated signage absent of the operator's name and telephone contact number[t].

The Barrow PRV station, had signage which stated, "Warning Gas Pipeline Owner Contact info: NSB school district maintenance & operations 907-852-4710"[u]. This signage is incorrect, BUECI is the current operator and their phone number for the office is (907) 852-6166, and the after-hours emergency number is (907) 852-3176.

PHMSA observed the Browerville PRV station, the Yugit Street PRV station, and the A street PRV station. Each PRV station contained signage with BUECI's current contact information; however, as required by the code, the area code was absent from all phone numbers displayed[v].

Item 2: NARL distribution system:

[t] Exhibit E-1 through E-4: Photos of various valve stations
[u] Exhibit E-5 through E-6: Photos of Barrow PRV station
[v] Exhibit E-7 through E-9: Photos of various PRV stations

BUECI failed to provide adequate signage outside of their NARL PRV station building. The signage at the NARL PRV station did not contain the minimum information required by code[w]. Signage displayed at the NARL PRV station building did not contain the operator's name. The signage also displayed an outdated phone number of "852-4887", and the phone number was without the area code. BUECI is the current operator for the NARL PRV station and, the current phone number for the BUECI office is (907) 852-6166, and the after-hours emergency number is (907) 852-3176.

Accordingly, BUECI is in violation of § 192.707.

17. § 192.721 Distribution systems: Patrolling.

(a) The frequency of patrolling mains must be determined by the severity of the conditions which could cause failure or leakage, and the consequent hazards to public safety.…

BUECI did not follow its procedure requiring patrols in business districts on a quarterly basis as is required by § 192.721

BUECI's O&M manual stated, "BUECI maintains a record of surveillance for all gas system components per 49 CFR 192.721. Patrols are documented on Form G17 – Quarterly Distribution System Patrol Report (for PRV station) and Form G18 – Quarterly Distribution System Patrol Report (for valve stations)."[x] BUECI did not provide any records of Form G17 or Form G18 for any year.

BUECI's O&M manual stated "Patrols…49 CFR 192.721…Frequency…Quarterly and Retention… 5 years."[y]

Because BUECI did not follow its own procedures regarding patrolling, BUECI is in violation of § 192.721.

[w] Exhibit E-10: Photo of NARL PRV station
[x] Exhibit A-1: O&M manual, Section 16.2.1 Record of Distribution System Patrolling, page 94 of 125,
[y] Exhibit A-1, O&M manual, Section 9.4, Schedule of Inspections and Reports, Table 9-1, page 49 of 125

18. § 192.723 Distribution systems: Leakage surveys.

(a) Each operator of a distribution system shall conduct periodic leakage surveys in accordance with this section.
(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.

Item 1: BUECI failed to complete leakage surveys within business districts at intervals not exceeding 15 months but at least once each calendar year as is required by § 192.723

BUECI's O&M manual listed the valve stations and critical infrastructure within the business districts of Utqiagvik to be surveyed annually.[z]

Upon review of the leakage survey records from 2022 & 2021, numerous records for locations and valve stations listed within the O&M manual were absent.[aa]

BUECI could not provide any other supplemental documentation indicating the Barrow distribution system, within the business district was surveyed annually.

Part C of the 2019 BUECI Annual Report stated 11 total leaks existed within the year. Part C of the 2020 BUECI Annual Report stated 2 total leaks existed within the year. During the 2022 records inspection, BUECI could not provide records documenting these leaks as reported on their 2019 and 2020 annual reports.

Annual Reports for 2019 indicated unaccounted for gas was 1.9%, while Annual Reports for 2020 & 2021 indicated unaccounted for gas was 4.7%

Item 2: BUECI's leakage survey documents were inadequate. All the distribution leakage survey documents stated BUECI utilized a "Gas Laser." No other explanatory verbiage or information was given to know the make, model, capability, or last calibration date. PHMSA could not determine the adequacy of the leakage detection equipment from the records provided.

Accordingly, BUECI is in violation of § 192.723.

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[z] Exhibit A-1: O&M manual, Section 16.3. Business District Leak Surveys, page 94 thru 95 of 125
[aa] Exhibit K-6 through K-11: Photos of leak survey records

19. § 192.747 Valve maintenance: Distribution systems.

(a) Each valve, the use of which may be necessary for the safe operation of a distribution system, must be checked and serviced at intervals not exceeding 15 months, but at least once each calendar year.

BUECI failed to properly document annual valve inspections for the valve associated with House 3320 as is required by § 192.747. Per records provided, Blowdown Inspection Form G06, BUECI failed to document the date the annual valve inspection occurred for the valve associated with Barrow, Block 13, Lot 6, House 3320. A record[bb] was physically discovered in the manila folder labeled "2022 Blowdown Inspection Form 06" and adjacent to similar Blowdown Inspection Forms, G06, for 2022, indicating the record was possibly completed in 2022.

BUECI's documented annual valve inspection records for the valves associated with the NARL distribution system were incomplete. Valve station numbers were absent from BUECI's Form G06, and only cardinal direction coordinates (N, S, E, W) were noted[cc]. A map of the NARL distribution system, illustrated valve stations 1 through 6, cannot be uniquely identified by only cardinal direction coordinates[dd]. PHMSA could not confirm each valve station within the NARL distribution system was included in the annual inspection during the year 2022.

Additionally, multiple valves exist within a single valve station, BUECI's Form G06 did not indicate which specific valves were inspected and operated during each valve inspection.

PHMSA could not determine from records if the valve station numbers were attributed to the Barrow distribution system or the NARL distribution system[ee]. Due to the fragmented documentation, PHMSA personnel could not confirm which emergency valves were inspected because documentation of the inspections on Forms G05 and G06 were incomplete and didn't include all necessary information to indicate which valves were inspected and operated.

BUECI did not exclusively document valve inspections on its annual distribution system valve inspection/external corrosion, Form G05, as directed by BUECI's O&M manual. Documentation for annual valve inspections was not complete and the valve inspections were not recorded on the G05 forms.

Accordingly, BUECI is in violation of § 192.747.

[bb] Exhibit C-1: Photo of BUECI Form G06, Annual distribution system blowdown/inspection report
[cc] Exhibit C-2 through C-6: Photos of BUECI's Form G06, Annual distribution system blowdown/inspection reports
[dd] Exhibit K-1: Photo of BUECI's map for the NARL gas distribution system
[ee] Exhibit C-7 through C-9: Photos of BUECI's Form G06, Annual distribution system blowdown/inspection reports

20. § 192.751 Prevention of accidental ignition.

Each operator shall take steps to minimize the danger of accidental ignition of gas in any structure or area where the presence of gas constitutes a hazard of fire or explosion, including the following:
(a) When a hazardous amount of gas is being vented into open air, each potential source of ignition must be removed from the area and a fire extinguisher must be provided.

BUECI failed to minimize the danger of possible ignition within a building as is required by § 192.751. BUECI's O&M manual stated, "BUECI takes steps to minimize the danger of accidental ignition of gas in any structure or area where the presence of gas constitutes a hazard of fire or explosion by requiring the following… [Paragraph] 2) Provide a fire extinguisher."[ff]

Upon PHMSA inspection, each of the 5 total visited Pressure Reduction Valve (PRV) buildings (Barrow PRV Station, Yugit PRV Station, A street PRV Station, Browerville PRV Station, & the NARL PRV Station) had expired fire extinguishers as shown in Exhibit B. These fire extinguishers did not appear to have been maintained or serviced for a significant amount of time. The fire extinguisher at the Browerville PRV Station had a tag indicating it came into service in July 1989. The fire extinguisher at the Yugit PRV Station had a tag which stated "VOID 1 YR. FROM MO. PUNCHED" with a punched date of March 2016. The fire extinguisher at the NARL PRV Station had a tag with no identifying information or dates indicating when it was manufactured, serviced, or recharged.

Accordingly, BUECI is in violation of § 192.751.

21. § 192.807 Recordkeeping.

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

BUECI failed to ensure that qualifications for individuals performing covered tasks were verified through evaluation as is required by § 192.807.

During the November 18, 2022, inspection PHMSA was provided a folder with operator qualification (OQ) records for BUECI personnel. Upon review of the OQ records, it was observed that the majority of the records were missing a signature above the "Qualified Tester Signature." Similarly, the "Qualified" or "Not Qualified" fields were both left blank on various records. These discrepancies were communicated to BUECI's operations supervisor. PHMSA personnel were not able to document the as-found condition of these OQ records. After these

[ff] Exhibit A-1: O&M manual, Section 5.12 Prevention of Accidental Ignition, page 32 of 125

discrepancies were discovered by PHMSA and communicated to the operations supervisor, the operations supervisor began to sign each unsigned "Qualified Tester Signature" and mark the "Qualified" portion of each record in front of PHMSA personnel. PHMSA personnel verbally told the operations supervisor that altering records without proper revision practices is not an ethical or good practice, as most of the qualification records were from 2021 and early 2022. The operations supervisor then gathered the documents into a folder and stated they would review each record to assure that each document was signed and marked as qualified. No other employee qualification records were provided to PHMSA thereafter.

Accordingly, BUECI is in violation of § 192.807.

22. § 192.1007 What are the required elements of an integrity management plan?

(a) . . . .
(f) *Periodic Evaluation and Improvement*. An operator must re-evaluate threats and risks on its entire pipeline and consider the relevance of threats in one location to other areas. Each operator must determine the appropriate period for conducting complete program evaluations based on the complexity of its system and changes in factors affecting the risk of failure. An operator must conduct a complete program re-evaluation at least every five years. The operator must consider the results of the performance monitoring in these evaluations.

BUECI failed to re-evaluate its Distribution Integrity Management Plan (DIMP) every five years as is required by § 192.1007.

Specifically, BUECI could not provide documentation indicating the DIMP manual was reviewed and evaluated at least every five years. No supplemental DIMP manual revision log was provided, and the revision log within the DIMP only documented changes from 2012. The last known version of the DIMP manual BUECI provided was updated on September 3, 2015.

BUECI began operating the NARL distribution system in 2016 and has failed to include the NARL distribution system in their DIMP.

In addition, BUECI failed to follow its DIMP manual in violation of § 192.605(a). BUECI did not provide documentation demonstrating the DIMP manual was refined and improved on an annual basis. BUECI's Distribution Integrity Management Plan states, "This Plan will be reviewed at least every 1 year to continually refine and improve this Plan."[gg] The last known version of the DIMP manual BUECI provided was updated on September 3rd, 2015.

Accordingly, BUECI is in violation of § 192.1007.

[gg] Exhibit A-2: BUECI DIMP manual, Chapter 3, paragraph 4, page 9 of 86.

Proposed Civil Penalty

Under 49 U.S.C. § 60122 and 49 CFR § 190.223, you are subject to a civil penalty not to exceed $257,664 per violation per day the violation persists, up to a maximum of $2,576,627 for a related series of violations. For violation occurring on or after March 21, 2022, and before January 6, 2023, the maximum penalty may not exceed $239,142 per violation per day the violation persists, up to a maximum of $2,391,412 for a related series of violations. For violation occurring on or after May 3, 2021, and before March 21, 2022, the maximum penalty may not exceed $225,134 per violation per day the violation persists, up to a maximum of $2,251,334 for a related series of violations. For violation occurring on or after January 11, 2021, and before May 3, 2021, the maximum penalty may not 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 violations and recommend that you be preliminarily assessed a civil penalty of $81,800 as follows:

Item number	PENALTY
5	$ 35,300
6	$ 46,500

Proposed Compliance Order

With respect to items **1** through **8**, **10** through **14**, **16** through **19**, **21**, and **22** pursuant to 49 U.S.C. § 60118, the Pipeline and Hazardous Materials Safety Administration proposes to issue a Compliance Order to Barrow Utilities and Electric Corporation. Please refer to the *Proposed Compliance Order*, which is enclosed and made a part of this Notice.

Warning Items

With respect to items **9, 15,** & **20,** 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 items. Failure to do so may result in additional enforcement action.

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. All material you submit in response to this enforcement action may be 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 your receipt of this Notice, you have 30 days to respond as described in the enclosed *Response Options*. 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. The Region Director may extend the period for responding upon a written request timely submitted demonstrating good cause for an extension.

In your correspondence on this matter, please refer to **CPF 5-2023-046-NOPV,** 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

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

cc: PHP-60 Compliance Registry
PHP-500 M. Yeager, H. Keogh (#22-257275)
Herman Reich, Natural Gas Distribution Superintendent, BUECI,
herman.reich@bueci.org

PROPOSED COMPLIANCE ORDER

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

A. In regard to item **1** of the Notice pertaining to annual reports, Barrow Utilities and Electric Corporation must review all excavation tickets for the year 2021 and amend the annual report for the year 2021 within **60** days of receipt of the Final Order and submit documentation that this action was completed to the Western Regional Director.

B. In regard to item **2** of the Notice pertaining to combustible material supporting pipeline infrastructure, Barrow Utilities and Electric Corporation must replace all combustible material pipeline supports with noncombustible material within **365** days of receipt of the Final Order and submit documentation that this action was completed to the Western Regional Director.

C. In regard to item **3** of the Notice pertaining to plastic joining written procedures, Barrow Utilities and Electric Corporation must provide written procedures for plastic joint fabrications within **90** days of receipt of the Final Order and submit documentation that this action was completed to the Western Regional Director.

D. In regard to item **4** of the Notice pertaining to the inspector qualification for inspecting plastic pipe, Barrow Utilities and Electric Corporation must provide training records of all currently qualified plastic joint inspectors as well as ensure all prior plastic joining inspections were completed by a qualified inspector or identify all plastic joints that were not inspected by a qualified inspector within **270** days of receipt of the Final Order and submit documentation that this action was completed to the Western Regional Director.

E. In regard to item **5** of the Notice pertaining to the metering and service-regulator box for the Ilisagvik College, Barrow Utilities and Electric Corporation must provide adequate ventilation for the metering and service-regulator box within **365** days of receipt of the Final Order and submit documentation that this action was completed to the Western Regional Director.

F. In regard to item **6** of the Notice pertaining to atmospheric corrosion monitoring, Barrow Utilities and Electric Corporation must provide records demonstrating both the BUECI and NARL systems were completely and adequately inspected for atmospheric corrosion over a 5 year period as well as clean and coat all indicated instances of active atmospheric corrosion identified within **365** days of receipt of the Final Order and submit documentation that this action was completed to the Western Regional Director.

G. In regard to item **7** of the Notice pertaining to gas composition sampling, Barrow Utilities and Electric Corporation must provide current gas composition records within **90** days of receipt of the Final Order and submit documentation that this action was completed to the Western Regional Director.

H. In regard to item **8** of the Notice pertaining to the O&M manual revisions, Barrow Utilities and Electric Corporation must provide records of prior manual revisions for the past 5 years within **90** days of receipt of the Final Order and submit documentation that this action was completed to the Western Regional Director.

I. In regard to item **10** of the Notice pertaining to periodic reviews of work, Barrow Utilities and Electric Corporation must provide records demonstrating a recent review of the work done by personnel was conducted to determine the effectiveness and adequacy of its procedures or conduct a review of the work done by personnel to determine the effectiveness and adequacy of the procedures within **270** days of receipt of the Final Order and submit documentation that this action was completed to the Western Regional Director.

J. In regard to item **11** of the Notice pertaining to emergency procedure training, Barrow Utilities and Electric Corporation must provide records demonstrating employees are trained on emergency procedures or conduct an employee training on emergency procedures within **180** days of receipt of the Final Order and submit documentation that this action was completed to the Western Regional Director.

K. In regard to item **12** of the Notice pertaining to employee activities during an emergency, Barrow Utilities and Electric Corporation must provide records of the March 11, 2020, emergency response or conduct an emergency drill to determine whether employee activities during a simulated emergency are effective within **365** days of receipt of the Final Order and submit documentation that this action was completed to the Western Regional Director.

L. In regard to item **13** of the Notice pertaining to maintain liaison with appropriate public entities, Barrow Utilities, and Electric Corporation must provide records of maintained liaison with public entities or conduct a meeting, training session, or other related activity to indicate liaison was made with appropriate public entities within **365** days of receipt of the Final Order and submit documentation that this action was completed to the Western Regional Director.

M. In regard to item **14** of the Notice pertaining to records for odorization of gas, Barrow Utilities and Electric Corporation must ensure the odorization records contain clear and objective data from this point forward and ensure the Bacharach Odorometer is properly calibrated within **365** days of receipt of the Final Order and submit documentation that this action was completed to the Western Regional

Director.

N. In regard to item **16** of the Notice pertaining to line markers, Barrow Utilities and Electric Corporation must correct all signage to include the proper verbiage required by code within **365** days of receipt of the Final Order and submit documentation that this action was completed to the Western Regional Director.

O. In regard to item **17** of the Notice pertaining to patrolling, Barrow Utilities and Electric Corporation must conduct quarterly patrols of the distribution systems per the O&M manual from this point forward after the Final Order.

P. In regard to item **18** of the Notice pertaining to leakage surveys, Barrow Utilities and Electric Corporation must provide documentation demonstrating all locations within the business district were surveyed or conduct a survey which includes all locations within the business district within **365** days of receipt of the Final Order and submit documentation that this action was completed to the Western Regional Director.

Q. In regard to item **19** of the Notice pertaining to valve maintenance, Barrow Utilities, and Electric Corporation must document valve maintenance exclusively on the Annual Distribution System Valve Inspection/External Corrosion Control, Form G05, as per the O&M manual, with clear and objective data demonstrating each valve and each location were identified properly, from this point forward after the Final Order.

R. In regard to item **21** of the Notice pertaining to operator qualifications, Barrow Utilities, and Electric Corporation must provide documentation demonstrating all employees are currently qualified or conduct training to demonstrate all employees are currently qualified within **365** days of receipt of the Final Order and submit documentation that this action was completed to the Western Regional Director.

S. In regard to item **22** of the Notice pertaining to the DIMP manual, Barrow Utilities and Electric Corporation must review and update as necessary its DIMP manual and incorporate any new distribution systems within **90** days of receipt of the Final Order and submit documentation that this action was completed to the Western Regional Director.

T. It is requested (not mandated) that Barrow Utilities and Electric Corporation maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Dustin Hubbard, 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.