U.S. Department
of Transportation

Pipeline and Hazardous Materials
Safety Administration

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

WARNING LETTER

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

December 27, 2018

Mr. Daniel W. Britton
President/CEO
Fairbanks Natural Gas, LLC
3408 International Way
Fairbanks, Alaska 99701

CPF 5-2018-3002W

Dear Mr. Britton:

On August 7 through August 11, 2017 and September 18 through September 22, 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 Liquified Natural Gas facilities in Fairbanks, 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. **§ 193.2511 Personnel safety.**
   (a) Each operator shall provide any special protective clothing and equipment necessary for the safety of personnel while they are performing emergency response duties.

The Operator failed to have protective clothing available to protect employees from the effects of exposure to LNG. Operator's procedure SOP 1110 requires "Welding

leathers/Nomex gear" at each LNG storage site. NFPA 59A requires available and readily accessible protective clothing. Storage Site #2 was missing the required Nomex gear during the site visit in August 2017.

2. **§ 191.29 National Pipeline Mapping System.**
(a) Each operator of a gas transmission pipeline or liquefied natural gas facility must provide the following geospatial data to PHMSA for that pipeline or facility:
(1) Geospatial data, attributes, metadata and transmittal letter appropriate for use in the National Pipeline Mapping System. Acceptable formats and additional information are specified in the NPMS Operator Standards Manual available at www.npms.phmsa.dot.gov or by contacting the PHMSA Geographic Information Systems Manager at (202) 366-4595.

The Operator provided no records to demonstrate that the Operator made the NPMS initial submission for 2015 (which should have been made in 2016) or a subsequent NPMS submission for 2016 (which should have been made in 2017). The operator made the 2016 NPMS initial filing during the time of our 2017 inspection.

3. **§ 193.2505 Cooldown.**
(a) The cooldown of each system of components that is subjected to cryogenic temperatures must be limited to a rate and distribution pattern that keeps thermal stresses within design limits during the cooldown period, paying particular attention to the performance of expansion and contraction devices.

The Operator failed to ensure that the thermal stresses are kept within design limits during cooldown because they have not established these limits using the required parameters. Records were reviewed in conjunction with Operator's Standard Operating Procedures 6202 & 6203; design limits are not listed in the procedures, however, the procedure says to verify maximum allowable working pressure in step 3, and this value is not contained in any records. No other design limits were listed in the procedures or associated records to enable the Operator to keep thermal stresses within design limits.

4. **§ 193.2513 Transfer procedures.**
(a) Each transfer of LNG or other hazardous fluid must be conducted in accordance with one or more manuals of written procedures to provide for safe transfers.
(b) The transfer procedures must include provisions for personnel to:
(1) Before transfer, verify that the transfer system is ready for use, with connections and controls in proper positions, including if the system could contain a combustible mixture, verifying that it has been adequately purged in accordance with a procedure which meets the requirements of "Purging Principles and Practices (incorporated by reference, see § 193.2013)";

(2) Before transfer, verify that each receiving container or tank vehicle does not contain any substance that would be incompatible with the incoming fluid and that there is sufficient capacity available to receive the amount of fluid to be transferred;
(3) Before transfer, verify the maximum filling volume of each receiving container or tank vehicle to ensure that expansion of the incoming fluid due to warming will not result in overfilling or overpressure;
(4) When making bulk transfer of LNG into a partially filled (excluding cooldown heel) container, determine any differences in temperature or specific gravity between the LNG being transferred and the LNG already in the container and, if necessary, provide a means to prevent rollover due to stratification.
(5) Verify that the transfer operations are proceeding within design conditions and that overpressure or overfilling does not occur by monitoring applicable flow rates, liquid levels, and vapor returns.
(6) Manually terminate the flow before overfilling or overpressure occurs; and
(7) Deactivate cargo transfer systems in a safe manner by depressurizing, venting, and disconnecting lines and conducting any other appropriate operations.
(c) In addition to the requirements of paragraph (b) of this section, the procedures for cargo transfer must be located at the transfer area and include provisions for personnel to:
(1) Be in constant attendance during all cargo transfer operations;
(2) Prohibit the backing of tank trucks in the transfer area, except when a person is positioned at the rear of the truck giving instructions to the driver;
(3) Before transfer, verify that:
(i) Each tank car or tank truck complies with applicable regulations governing its use;
(ii) All transfer hoses have been visually inspected for damage and defects;
(iii) Each tank truck is properly immobilized with chock wheels, and electrically grounded; and
(iv) Each tank truck engine is shut off unless it is required for transfer operations;
(4) Prevent a tank truck engine that is off during transfer operations from being restarted until the transfer lines have been disconnected and any released vapors have dissipated;
(5) Prevent loading LNG into a tank car or tank truck that is not in exclusive LNG service or that does not contain a positive pressure if it is in exclusive LNG service, until after the oxygen content in the tank is tested and if it exceeds 2 percent by volume, purged in accordance with a procedure that meets the requirements of "Purging Principles and Practices (incorporated by reference, see §193.2013)".

(6) Verify that all transfer lines have been disconnected and equipment cleared before the tank car or tank truck is moved from the transfer position; and
(7) Verify that transfers into a pipeline system will not exceed the pressure or temperature limits of the system.

The Operator could not demonstrate that they followed the Standard Operating Procedures for transferring LNG. Operator's Standard Operating Procedure's (6240 – 6244) records LNG Trailer Offload Data Sheets for July 2017 were reviewed during the inspection. Records and forms to show compliance do not follow or record all Standard Operating Procedures steps and requirements in § 193.2513.

5. § 193.2639 Maintenance records.
(a)....
(c) Each of the following records must be retained for as long as the LNG facility remains in service:
(1)....
(2) Records of each test, survey, or inspection required by this subpart in sufficient detail to demonstrate the adequacy of corrosion control measures

The Operator failed to maintain maintenance records for infrastructure inspections. Support System and Dike Inspection forms are missing for August 2017 for Storage Site #1. Also, the Operator provided no annual records for 2016 and 2017 for LNG Storage Tank and Impoundment Inspections. Operator's Standard Operating Procedures 7101 and 7105 cover these inspections.

6. § 193.2619 Control systems.
(a)....
(c) Control systems in service, but not normally in operation, such as relief valves and automatic shutdown devices, and control systems for internal shutoff valves for bottom penetration tanks must be inspected and tested once each calendar year, not exceeding 15 months, with the following exceptions:
(1)....
(2) Control systems that are intended for fire protection must be inspected and tested at regular intervals not to exceed 6 months. (Control system means a component, or system of components functioning as a unit, including control valves and sensing, warning, relief, shutdown, and other control devices, which is activated either manually or automatically to establish or maintain the performance of another component.)

The Operator did not maintain required records for control systems. Records relating to Operator's Standard Operating Procedure 7150 "Fire and Gas Detection Equipment Maintenance" and Standard Operating Procedure 7155 "Fire Control Equipment Maintenance" were reviewed. Standard Operating Procedure 7150 requires inspecting fire eyes in two intervals: not to exceed 6 months and also annually. The procedure additionally

requires methane detectors to be inspected and tested at intervals not to exceed 6 months and annually. Portable gas detectors are required to be checked monthly for battery, charge, and calibration. The Operator produced no 2017 records for 6 or 12 month tests for fire eyes or methane detectors. Storage Site Monthly Maintenance and Inspection Logs show monthly inspections of fire extinguishers, but portable gas detectors were not checked monthly (2011 - 2016). The Operator produced annual fire eye (IR) and Methane detector inspections at Storage Site #1 and Storage Site #2 for 2012 to 2016 (except for Storage Site #1 2015 Methane detector inspections).

Operator's Standard Operating Procedure 7155 "Fire Control Equipment Maintenance" requires monthly inspection of extinguishers as well as an annual maintenance for extinguishers by a contractor with specialized training. An annual service of fire extinguishers, wheeled units, and skid units was performed on August 28, 2012. Monthly checks for 2017 were available in the field. Aside from those dates, there are no consistent records for annual or monthly checks.

7. §193.2619 Control systems.
(a)....
(c) Control systems in service, but not normally in operation, such as relief valves and automatic shutdown devices, and control systems for internal shutoff valves for bottom penetration tanks must be inspected and tested once each calendar year, not exceeding 15 months, ...

The Operator failed to inspect and test emergency control systems. Emergency Shutdown Device inspection and test records provided by the Operator for Storage Site #1 and Storage Site #2 are only for 2016. The inspection and test records for 2015 and 2017 years were provided.

8. § 193.2711 Personnel health.
Each operator shall follow a written plan to verify that personnel assigned operating, maintenance, security, or fire protection duties at the LNG plant do not have any physical condition that would impair performance of their assigned duties. The plan must be designed to detect both readily observable disorders, such as physical handicaps or injury, and conditions requiring professional examination for discovery.

The Operator failed to verify that the physical condition of the LNG workers would not impair them from performance of their duties. The Operator produced medical exam cards for personnel for Department of Transportation driving. The Operator's Standard Operating Procedure 1160 says "LNG Storage site operators shall comply with the minimum of an Interstate Commerce Commission (ICC) physical examination Baseline Physical." No ICC physical exam records were produced.

9. **§ 193.2707 Operations and maintenance.**
(a)....
(c) Corrosion control procedures under §193.2605(b), including those for the design, installation, operation, and maintenance of cathodic protection systems, must be carried out by, or under the direction of, a person qualified by experience and training in corrosion control technology.

The Operator did not have corrosion inspections performed by qualified individuals. Operator's Standard Operating Procedure 7205 states "[a]ll corrosion inspections shall be performed by a person Qualified to perform Corrosion inspections as certified by National Association of Corrosion Engineers (NACE)." Several of the Operator's personnel performed atmospheric, external cathodic protection for buried facilities, and intermediate corrosion inspections. None of the Operator's personnel are NACE certified.

10. **§193.2713 Training: operations and maintenance.**
(a)....
(b) A written plan of continuing instruction must be conducted at intervals of not more than two years to keep all personnel current on the knowledge and skills they gained in the program of initial instruction.

The Operator failed to give proper exams for qualification and keep appropriate records for such tests and qualifications. Operator's Standard Operating Procedure 6001 states "5. A written plan of operator qualification training to instruct on LNG Storage and Vaporization Facilities and Distribution systems will be required for all staffed operators. 6. The written plan of continuing instruction will be conducted at intervals of not more than (2) two years, to ensure that the staffed operators maintain the knowledge and skills they acquired in their initial instruction and are kept current with updates."

An employee's original training documents from 2012 are inapplicable because all the answers in the multiple choice tests are italicized while the wrong answers were in a plain font. There are no dates on many documents for the review of Standard Operating Procedures. Certain Operator personnel records for Red Cross first aid credentials do not exist for 2016. There are first aid certificates for most employees in 2012, 2014, and 2017, but none for 2016.

11. **§ 193.2715 Training: security.**
(a)....
(b) A written plan of continuing instruction must be conducted at intervals of not more than two years to keep all personnel having security duties current on the knowledge and skills they gained in the program of initial instruction.

The Operator's security training was not sufficient to qualify employees. For example, records show that one of the Operator's personnel completed a security review of Standard Operating Procedures 1220, 1215, 1211, 1205 on March 3, 2017. Generic undated memos in

previous years (2016 – 2012) regarding review of Standard Operating Procedures as training don't appear to meet code because they are undated and lack specificity of the security training topics covered.

12. § 193.2717 Training: fire protection.
(a) All personnel involved in maintenance and operations of an LNG plant, including their immediate supervisors, must be trained according to a written plan of initial instruction, including plant fire drills, to:
(1) Know the potential causes and areas of fire;
(2) Know the types, sizes, and predictable consequences of fire; and
(3) Know and be able to perform their assigned fire control duties according to the procedures established under § 193.2509 and by proper use of equipment provided under § 193.2801.
(b) A written plan of continuing instruction, including plant fire drills, must be conducted at intervals of not more than two years to keep personnel current on the knowledge and skills they gained in the instruction under paragraph (a) of the section.
(c) Plant fire drills must provide personnel hands-on experience in carrying out their duties under the fire emergency procedures required by § 193.2509.

The Operator's April 6, 2016 "Live LNG Situational walk through training for an emergency situation" appears to meet the standards in § 193.2717, however, there is no evidence that the training was offered to the two initial hires who started work for the Operator in approximately February 2017, as per Standard Operating Procedure 1112.

13. § 193.2717 Training: fire protection.
(a)....
(b) A written plan of continuing instruction, including plant fire drills, must be conducted at intervals of not more than two years to keep personnel current on the knowledge and skills they gained in the instruction under paragraph (a) of the section.

Personnel records for one of the Operator's employees for "LNG fire training," dated March 6, 2016, does not meet the requirements of the regulation. Specifically, the employee's emergency training folder shows Fire Drill Training at LNG Storage site without a date. The memos from May 20, 2015 and June 10, 2013 for "Emergency recognition and response" do not show that 193.2717 standards to include plant fire drills have been met.

Under 49 U.S.C. § 60122 and 49 CFR § 190.223, you are subject to a civil penalty not to exceed $209,002 per violation per day the violation persists, up to a maximum of $2,090,022 for a related series of violations. 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

conduct additional enforcement action or penalty assessment proceedings at this time. We advise you to correct the items identified in this letter. Failure to do so will result in Fairbanks Natural Gas being subject to additional enforcement action.

No reply to this letter is required. If you choose to reply, in your correspondence please refer to **CPF 5-2018-3002W.** 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).

Sincerely,

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

cc: PHP-60 Compliance Registry
PHP-500 J. Owens (# 155562)