

December 8, 2019

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State of Washington Utilities and Transportation Commission

RE: 2019 Liquid Petroleum Gas Pipeline System Inspection - The New Roche Harbor Resort-The New Roche Harbor Resort - (Insp. No. 7858)

Answers to each item are in “Blue Font”.

PROBABLE VIOLATIONS

1. 49 CFR S192.375fa) Service lines: Plastic

(a) Each plastic service line outside of a building must be installed below ground level, except that—

(2) It may terminate above ground level, if— (i) The above ground level part of the plastic service line is protected against deterioration and external damage;

Findings);

In the 2017 Technical Assistance Inspection report, staff noted that numerous active polyethylene (PE) service stubs from 2006 (not verified) were above ground, susceptible to UV exposure and damage. During the 2019 inspection, staff found some of these service stubs in the same condition.

NRH Staff have addressed each of the locations where the “Live gas service” lines had been stubbed up. These locations have been dug up and the exposed portion has ben buried.

2. 49 CFR S192.383(b) Excess flow valve installation

(b)Installation required. An EFV installation must comply with the performance standards in § 192.281. After April 14, 2017, each operator must install an EFV on any new or replaced service line serving the following types of services before the line is activated:

(1) A single service line to one SFR;

(2) A branched service line to a SFR installed concurrently with the primary SFR service line (i.e., a single EFV may be installed to protect both service lines);

(3) A branched service line to a SFR installed of a previously installed SFR service line that does not contain an EFV;

(4) Multifamily residences with known customer loads not exceeding 1,000 SCFH per service, at time of service installation based on installed meter capacity, and

(5) A single, small commercial customer served by a single service line with a known customer load not exceeding 1,000 SCFH, at the time of meter installation, based on installed meter capacity.

Findings);

NRH has service lines installed after Apr 14,2017 without EFV's.

NRH Staff have documentation showing proof of installation of EFV's in all new construction since receiving OQ Training.

3. 49 CFR S192.481 Atmospheric corrosion control: monitoring

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

(b) During inspections the operator must give particular attention to pipe at soil-to-air interfaces, under thermal insulation, under disbanded coatings, at pipe supports, in splash zones, at deck penetrations, and in spans over water.

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

Finding(s);

NRH failed to provide documentation to support that they had established intervals or

frequency for monitoring for atmospheric corrosion.

NRH Staff monitor atmospheric corrosion, per the O&M Plan, Page 24

4. 49 CFR S192.605 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.

Findings):

NRH failed to provide a procedure for polyethylene (PE) service stubs. (See item #1 and finding)

5. 49 CFR §192.615fbK31 Emergency Plans

(b) Each operator shall:

(3) Review employee activities to determine whether the procedures were effectively followed in each emergency.

Findings:

NRH failed to provide documentation this procedure is included in the Emergency Plan.

NRH Staff will send an electronic version of our O&M manual which will show our “Emergency Plan”. Pages 37, 38, 39

6. 49 CFR S192.615(c) Emergency Plans

(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 as pipeline emergency;

(2) Acquaint the officials with the operator's ability in responding to a pipeline emergency;

(3) Identify the types of as 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.

Findings);

NRH failed to provide documentation to support that they had maintained liaison with appropriate fire, police, and other public officials.

NRH Has established liaison with Emergency responders as per the O&M Plan

7. 49 CFR S192.616(i) Public awareness

(j) Unless the operator transports gas as a primary activity, the operator of a master meter or petroleum gas system is not required to develop a public awareness program as prescribed in paragraphs (a) through of this section. Instead the operator must develop and implement a written procedure to provide its customers public awareness messages twice annually. If the master meter or petroleum gas system is located on property the operator does not control, the operator must provide similar messages twice annually to persons controlling the property. The public awareness message must include:

(1) A description of the purpose and reliability of the pipeline;

(2) An overview of the hazards of the pipeline and prevention measures used;

(3) Information about damage prevention;

(4) How to recognize and respond to a leak; and

(5) How to get additional information.

Finding(s);

NRH failed to provide documentation to support that they had developed a public awareness message and had implemented

NRH Staff have established atmospheric corrosion monitoring policy and procedures in the O&M Plan. Page 24

8. 49 CFR S192.707 Line markers for mains and transmission lines

(a) Buried pipelines. Except as provided in paragraph (b) of this section, a line marker must be placed and maintained as close as practical over each buried main and transmission line:

(1) At each crossing of a public road and railroad; and

(2) Wherever necessary to identify the location of the transmission line or main to reduce the possibility of damage or interference.

Finding(s);

Staff noted there were no line markers at public road crossings or other places necessary to identify the location of the main.

NRH Staff have ordered line markers and will install them as expeditiously as work load allows.

9. 49 CFR 8192.723fb) (If Distribution systems: Leakage surveys

(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 2as, 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.

Finding(s);

NRH failed to provide documentation to support that they had developed a leakage control program and procedures that state intervals or frequency.

NRH Staff have been checking at locations where access is available such as valve boxes etc. for leakage using their CGI. NRH Staff have arranged for ATI units to be installed along the entirety of the underground pipeline facilities at approximate 20' intervals.

10. 49 CFR S192.727fd) Abandonment or deactivation of facilities

(d) Whenever service to a customer is discontinued, one of the following must be complied with:

(1) The valve that is closed to prevent the flow of gas to the customer must be provided with a locking device or other means designed to prevent the opening of the valve by persons other than those authorized by the operator.

(2) A mechanical device or fitting that will prevent the flow of gas must be installed in the service line or in the meter assembly.

(3) The customer's piping must be physically disconnected from the gas supply and the open pipe ends sealed.

Finding(s);

NRH failed to provide documentation to support that they had developed procedures for abandonment or deactivation of facilities.

NRH Staff have established abandoning and deactivating facilities policy and procedures in the O&M Plan. Page 32

11. 49 CFR S192.747 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.

(b) Each operator must take prompt remedial action to correct any valve found inoperable, unless the operator designates an alternative valve.

Findings;

NRH failed to provide documentation to support that they had established intervals or frequency for checking and servicing valves.

NRH staff have documentation for when testing was done on underground valves

12. 49 CFR §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:

(c) 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.

(b) Gas or electric welding or cutting may not be performed on pipe or on pipe components that contain a combustible mixture of gas and air in the area of work.

© Post warning signs, where appropriate.

Findings);

NRH failed to provide documentation to support that they had procedures that outline the steps to be taken to address prevention of accidental ignition.

In the O&M Manual Page 41

13. WAC 480-93-018(31 Records

(3) Each gas pipeline company must maintain a list of forms and databases, including examples where applicable, that specify what records the company maintains. Each gas pipeline company must make this list available to the commission upon request.

Findings:

NRH failed to provide documentation to support the type of records the company maintains, and do not have maps or drawings of the pipeline system available for appropriate personnel or the commission upon request.

NRH Staff have created maps highlighting the location of Key Valves, location of important fittings etc. in addition to an Overall system Map.

14. WAC 480-93-100(31 Valves

(3) All service valves selected for inspection in the program required in subsection (2) of this section must be operated and maintained at least once annually, but not to exceed fifteen months between operation and maintenance.

Findings:

NRH failed to provide documentation to support that they had procedures that outline the frequency of when services valves would be operated and maintained, and failed to provide valve O&M records for 2018.

NRH Staff have been operating and inspecting the valves annually, inspecting for debris, signs of gas leakage, operation of the valve.

15. WAC 480-93-124 Pipeline markers

(1) Each gas pipeline company must place pipeline markers at the following locations:

(a) Where practical, over pipelines operating above two hundred fifty psig;

(b) Over mains and transmission lines crossing navigable waterways (custom signage may be required to ensure visibility);

(c) Over mains and transmission lines at river, creek, drainage ditch, or irrigation canal

crossings where hydraulic scouring, dredging, or other activity could pose a risk to the pipeline (custom signage may be required to ensure visibility);

- (d) Over gas pipelines at railroad crossings;
- (e) At above ground gas pipelines except service risers, meter set assemblies, and gas pipeline company owned piping downstream of the meter set assembly. The minimum lettering size requirements located in 49 C.F.R. § 192.707 (d)(1) do not apply to services; (ft Over mains located in Class 1 and 2 locations;
- (^ Over transmission lines in Class 1 and 2 locations, and where practical, over transmission lines in Class 3 and 4 locations; and
- (h) Over mains and transmission lines at interstate, U.S. and state route crossings where practical.

(2) Practical, the gas pipeline company must place markers on both sides of any crossing listed in subsection (l) of this section.

(3) Where markers are required on buried gas pipelines, they must be placed approximately five hundred yards apart and at points of horizontal deflection if practical.

(4) Where gas pipelines are attached to bridges or otherwise span an area, each gas pipeline company must place pipeline markers at both ends of the suspended pipeline. Each gas pipeline company must conduct surveys of pipeline markers required by this subsection at least annually, not to exceed fifteen months.

(5) Each gas pipeline company must replace markers that are reported damaged or missing within forty-five days.

(6) Surveys of pipeline markers not associated with subsection (4) of this section must be conducted at least every five calendar years but not to exceed sixty-three months, to ensure that markers are visible and legible.

- (a) Each gas pipeline company must keep on file the last two surveys, or all surveys for the past five years, whichever number of surveys is greater.
- (b) Survey records must include a description of the system and area surveyed.

(7) Each gas pipeline company must have records such as maps or drawings sufficient to indicate class locations and other areas where pipeline markers are required.

Finding(s);

Staff noted that there were no markers placed at road crossings or at locations where main was located above ground.

NRH have found a source of suitable line markers and will get them and are installing them.

16. WAC 480-93-140 Service regulators

(1) To ensure proper operation of service regulators, each gas pipeline company must install, operate, and maintain service regulators in accordance with federal and state regulations, and in accordance with the manufacturer's recommended installation and maintenance practices.

(2) Each gas pipeline company must inspect and test service regulators and associated safety devices during the initial turn-on, and when a customer experiences a pressure problem. Testing must include determining the gas regulator's outlet set pressure at a specified flow rate. Each gas pipeline company must use pressure gauges downstream of the regulator during testing. Safety devices such as fracture discs are not required to be tested.

Findings:

Staff noted a meter set and regulator located underneath an enclosed stairway.

NRH Staff have piped this regulator vent out to a safe location with suitable product.

17. WAC 480-93-188(21 Gas leak surveys

(2) Each gas pipeline company must maintain, test for accuracy, calibrate and operate gas detection instruments in accordance with the manufacturer's recommendations. If there are no written manufacturer's recommendations or schedules, then the gas pipeline company must test such instruments for accuracy at least monthly, but not to exceed

forty-five days between testing, and at least twelve times per year. The gas pipeline company must recalibrate or remove from service any such instrument that does not meet applicable tolerances. Records of accuracy checks, calibration and other maintenance performed must be maintained for five years.

Finding(s):

NRH failed to provide documentation to support that they had procedures for checking gas detection instruments for accuracy, calibration intervals and operation.

18. WAC 480-93-188(31) Gas leak surveys

(3) Each gas pipeline company must conduct gas leak surveys according to the following minimum frequencies:

- (a) Business districts - At least once annually, but not to exceed fifteen months between surveys. All mains in the right of way adjoining a business district must be included in the survey;
- (b) High occupancy structures or areas - At least once annually, but not to exceed fifteen months between surveys;
- (c) Gas pipelines operating at or above two hundred fifty psig - At least once annually, but not to exceed fifteen months between surveys;
- (d) Where the gas system has cast iron, wrought iron, copper, or non cathodically protected steel - At least twice annually, but not to exceed seven and one-half months between surveys; and
- (e) Unodorized gas pipelines - At least monthly.

Findings:

NRH failed to provide documentation to support that they had procedures for conducting gas leak surveys according to minimum frequencies.

NRH Staff have been checking at locations where access is available such as valve boxes etc. for leakage using their CGI. As soon as the ATI units are installed the documentation will reflect them being used. Locations where the technician tests where the ATI is not available i.e. "storm drain" this location will be described in the documentation.

19. WAC 480-93-188(51) Gas leak surveys

(5) Each gas pipeline company must keep leak survey records for a minimum of five years. At a minimum, survey records must contain the following information;

- (a) Description of the system and area surveyed (including maps and leak survey logs);
- (b) Survey results;
- (c) Survey method;
- (d) Name of the person who performed the survey;
- (e) Survey dates; and
- (f) Instrument tracking or identification number.

Findings:

NRH failed to provide documentation to support that they had procedures for keeping leak survey records or any actual leak survey records.

NRH Staff have received Automatic Test Inserts, which have been installed at approximate 20' intervals along all the underground facilities to accommodate testing. Locations where the technician decides to test an additional location such as Storm Sewer, that additional location will be described in the documentation.

20. NFPA 58 5.2.8.3 (5) Container markings

The markings specified for ASME containers shall be on a stainless steel metal nameplate attached to the container, located to remain visible after the container is installed.

(5) The wording "This container shall not contain a product that has a vapor pressure in excess of psig at 100 degree F"(see Table 5.2.4.2.)

Findings:

Staff noted this was missing from the nameplate.

21. NFPA 58 5.2.8.3 (6) Container marking

The markings specified for ASME containers shall be on a stainless steel metal nameplate attached to the container, located to remain visible after the container is installed.

(6) Outside surface area in square feet

Findings;

Staff noted this was missing from the nameplate.

NRH Staff have contacted the tank manufacturer. The firm that installed the tank has sent a representative that permanently attached an additional data plate that completed the required information.

22. NFPA 58 5.2.8.3 (8) Container marking

The markings specified for ASME containers shall be on a stainless steel metal nameplate attached to the container, located to remain visible after the container is installed.

(8) Shell thickness and head thickness

Findings:

Staff noted this was missing from the nameplate.

23. NFPA 58 5.2.8.3 Container marking

The markings specified for ASME containers shall be on a stainless steel metal nameplate attached to the container, located to remain visible after the container is installed.

(9) OL (overall length), CD (outside diameter), HD (head design)

Finding

Staff noted this was missing from the nameplate.

24. NFPA 58 5.7.2.4 (a) Pressure Relief Devices

ASME containers for LP-Gas shall be equipped with direct spring-loaded pressure relief valves conforming with applicable requirements of UL132, Standard on Safety Relief Valves for Anhydrous Ammonia and LP-Gas, or other equivalent pressure relief valve standards.

(A) The start-to-leak setting of such pressure relief valves, in relation to the pressure rating of the container, shall be in accordance with Table 5.7.2.4(A).

Findings;

NRH failed to provide documentation to support that there are direct spring-loaded pressure relief valves conforming with the applicable requirements.

NRH Staff have contacted the tank manufacturer. The firm that installed the tank is sending a representative to permanently attach an additional data plate that will complete the required information.

25. NFPA 58 5.7.2.5 Pressure Relief Devices

The minimum rate of discharge of pressure relief valves shall be in accordance with Table 5.7.2.5 or shall be calculated using the following formula:

Flow Rate (ft³/min air) - $53.632 \times A$ to the power of 0.82

where:

A = total outside surface area of container in square feet

Findings):

NRH failed to provide documentation to support that the minimum rate of discharge of pressure relief valves were in accordance with these requirements.

26. NFPA 58 5.7.2.8 Pressure Relief Devices

Each pressure relief valve shall be plainly marked with the following:

(1) The pressure psig at which the valve is set to start-to-leak

Findings);

NRH failed to provide documentation to support that this information is located on the pressure relief valves.

NRH Staff have a “Cut sheet” that has the required data on it in their file.

27. NFPA 58 5.7.5.1 Pipe for Regulator Venting

Pipe or tubing used to vent regulators shall be one of the following:

(1) Metal pipe and tubing in accordance with 5.8.3

(2) PVC meeting the requirements of UL 651, Schedule 40 or SO Rigid PVC Conduit

Findings):

NRH failed to provide documentation for the PVC tubing used to vent regulators.

NRH Staff are formulating a plan to replace all PVC Pipe that was used to pipe away regulator vents with material that meets code.

28. NFPA 58 5.7.8.2 Liquid Level Gauging Devices

5.7.8.2 The gauging devices shall be either fixed maximum liquid level gauges or variable gauges of the slip tube, rotary, or float types (or combinations of such gauges).

Findings):

NRH failed to provide documentation to support this information.

NRH Staff have a “Cut sheet” for the liquid outage valve used on the tank.

NFPA 58 6.4.5.2 Other Container Location Requirements

Loose or piled combustible material and weeds and long dry grass shall be separated from containers by a minimum of 10 ft (3 m)?

Findings;

Staff noted that a stack of empty LP-Gas containers and a large wooden support were located within 10ft. of the container.

Harbor Propane Staff have moved the combustible materials and empty storage tanks away from the tank.

30* NFPA 58 6.10.9 Emergency Shutoff Valves

Emergency shutoff valves and back flow check valves required by the code

shall be tested annually for the functions required by 5.10.4. The results of the test documented.

Findings);

NRH failed to provide documentation to support that emergency valves were tested annually.

NRH Staff were not aware this needed to be documented. Moving forward it will be done and documented annually.

31. NFPA 58 6.11.1 Hydrostatic Relief Valves

A hydrostatic relief valve or a device providing pressure-relieving protection shall be installed in each section of piping and hose in which liquid LP-Gas can be isolated between shut off valves so as to relieve the pressure that could develop from the trapped liquid to a safe atmosphere or product-retaining section.

Findings);

Staff noted that there was no hydrostatic relief valve installed on the liquid flow pipeline between the container and the direct-fired vaporizer.

Harbor Propane Personnel has caused that a properly sized Hydrostatic relief valve be installed in the gas line where liquid propane could potentially be trapped between two valves if they were to be shut off simultaneously, between the tank and the direct fired vaporizer.

AREAS OF CONCERN AND FIELD OBSERVATIONS

Related to the probable violation item #1, staff noted that some previously identified active PE service stubs that were found above ground, and susceptible to UV exposure and damage, had been put into service. NRH failed to provide documentation that the exposed portions of the service lines had been removed.

NRH Staff have dug by hand immediately adjacent the service Stubbs and buried them to insure they are no longer exposed to the sun. When the time comes for these locations to be put into service, the Procedure is to dig the material up either by hand or pneumatic excavation as to not damage the Gas line. At that time the service line will be squeezed off to stop the flow of gas so the old material can be cut out and accommodate the installation of a "Curb Valve" Excess Flow Valve as per our policy and procedures. In no case will any of the old PE Tubing that was exposed to the UV Light be used or left in service. It will all be removed and discarded.

2. Related to checklist item #201, staff noted that NRH has no verifiable documentation to establish the existing pipeline system or when it was installed.

NRH Staff has been working to obtain historic documentation from the previous operators of the system. AmeriGas has told Staff and the Consultant working for NRH that AmeriGas has no historic documents for the system.

NRH has exhausted every possible avenue to obtain "Historic documents" from previous owner(s), operator(s) and contractors. Any of those records have been obtained and are in the file.

Regards,