



STATE OF WASHINGTON

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

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Ref. No. Docket PG-110039

CERTIFIED MAIL

June 20, 2011

The Honorable Pat Johnson
Mayor
City of Buckley
933 Main Street
PO Box 1960
Buckley, WA 98321

Dear Mayor Johnson:

RE: 2011 Standard Natural Gas Inspection – City of Buckley, Washington

We conducted a standard inspection from May 2-5, May 9-10, and May 17, 2011 of the City of Buckley's pipeline system in Buckley, Washington. The inspection included a records review and inspection of the pipeline facilities.

Our inspection indicates nine probable violations as noted in the enclosed report. We also noted three areas of concern, which unless corrected, could potentially lead to future violation of state and/or federal pipeline safety rules.

Your response needed

Please review the attached report and respond in writing by July 22, 2011. The response should include how and when you plan to bring the probable violations into full compliance.

What happens after you respond to this letter?

The attached report presents staff's decision on probable violations and does not constitute a finding of violation by the commission at this time.

After you respond in writing to this letter, there are several possible actions the commission, in its discretion, may take with respect to this matter. For example, the commission may:

- Issue an administrative penalty under RCW 81.88.040, or
- Institute a complaint, seeking monetary penalties, changes in the company's, practices, or other relief authorized by law, and justified by the circumstances, or
- Consider the matter resolved without further commission action.



City of Buckley
Docket PG-110039
June 20, 2011
Page 2

If you have any questions, or if we may be of any assistance, please contact Dave Cullom at (360) 664-1141. Please refer to Docket PG-110039 in any future correspondence regarding this inspection.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. Lykken', with a long horizontal flourish extending to the right.

David D. Lykken
Pipeline Safety Director

cc. David Schmidt, City Administrator

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION
2011 Intrastate Natural Gas Standard Inspection Report
City of Buckley Inspection
Docket No. PG-110039

Probable Violations

The following probable violations of Title 49, CFR Part 192 and WAC 480-93 were noted as a result of the inspection of the City of Buckley natural gas distribution system in Buckley, WA. The inspection included a random selection of records, operation and maintenance (O&M), emergency response and field inspection of the pipeline facilities.

1. **WAC 480-93-170 Tests and reports for pipelines.**

(10) *Pressure testing equipment must be maintained, tested for accuracy, or calibrated, in accordance with the manufacturer's recommendations. When there are no manufacturer's recommendations, then pressure testing equipment must be tested for accuracy at an appropriate schedule determined by the gas pipeline company. Test equipment must be tagged with the calibration or accuracy check expiration date. The requirements of this section also apply to equipment such as pressure charts, gauges, dead weights or other devices used to test, monitor or check system pressures or set-points.*

Finding(s):

Records were not available demonstrating that pressure charts had been inspected for proper functioning within the required time frames. A record was provided during the exit interview for 5/16/2011, but not for calendar years 2009 or 2010.

2. **WAC 480-93-018 Records.**

(5) *Each gas pipeline company must update its records within six months of when it completes any construction activity and make such records available to appropriate company operations personnel.*

Finding(s):

There were several maps that denoted the pipeline in the wrong location. Hand written changes were made to the quarter section map, but the maps used for the leak survey were not updated. As a result of having maps with errors and/or omissions, the leak surveys were not complete. Areas noted that had errors, omissions, or map updates were not completed within the six month time period include, but are not limited to:

- a. Rainier School – Quinault Ct (Map E-13)
- b. The White River bridge (Map A-8)
- c. South Sergeant St (D-10)

These examples are not all inclusive, but provide a general starting point for improving the update process.

3. **WAC 480-93-185 Gas leak investigation.**

- (1) *Each gas pipeline company must investigate any odor, leak, explosion, or fire, which may involve its gas pipelines, promptly after receiving notification. Where the investigation reveals a leak, the gas pipeline company must grade the leak in accordance with WAC 480-93-186, and take appropriate action. The gas pipeline company must retain the leak investigation record for the life of the pipeline.*

Finding(s):

There were two leak investigation report forms for 157 E. Mason where the response to an odor call required 20hrs 10 min to respond on 2/17 and 2hrs 45min to respond on 3/18/2011. Additionally, the leak investigation report form for 1408 Main St shows the leak graded at 10% gas/air for a leak detected on 3/10/09 by Heath Consultants. The leak was deferred until 4/7/2010. The LEL of Buckley's system has been identified as 5-15% of gas/air and this leak, as indicated, is within the explosive range. It was deferred for over a year and was graded as a Grade 3 leak. This grading appears to be inconsistent with the guidelines for leak grading as outlined in pg 116-118 of the City of Buckley's O&M manual. The first responder definitions and procedures provided in the O&M manual on pages 143, 144, and 146 also need to be clarified.

4. **49 CFR §192.616 Emergency plans.**

- (h) *Operators in existence on June 20, 2005, must have completed their written programs no later than June 20, 2006. The operator of a master meter or petroleum gas system covered under paragraph (j) of this section must complete development of its written procedures by June 13, 2008. Upon request, operators must submit their completed programs to PHMSA or, in the case of an intrastate pipeline facility operator, the appropriate State agency.*

Finding(s):

The City of Buckley was unable to demonstrate they had evaluated the effectiveness of their public awareness program within the required time period. They did state that they had some data collected, but had never performed a study.

5. **WAC 480-93-185 Gas leak investigation.**

- (3) *When leak indications are found to originate from a foreign source (for example, a gasoline tank, a sewer, a marsh or customer-owned piping), and the situation is ongoing and potentially hazardous, the gas pipeline company must:*
- (a) *Take appropriate action regarding its own facilities to protect life and property; and*
 - (b) *Report the leak promptly to the source facility owner or operator and, where appropriate, to the police department, fire department, or other appropriate governmental agency. If the property owner or an adult person occupying the premises is not available, the gas pipeline company must, within twenty-four hours of the leak investigation, send by first-class mail, addressed to the person occupying the premises, a letter explaining the results of the investigation. The gas pipeline company must keep a record of each letter sent for five years.*

Finding(s):

No records were available or provided that demonstrated that the foreign leaks identified at 1707 Ryan Rd and 28280 Hwy 410 had the owner or occupant(s) notification completed in accordance with the rule.

6. **WAC 480-93-187 Gas leak records.**

Each gas pipeline company must prepare and maintain permanent gas leak records. The leak records must contain sufficient data and information to permit the commission to assess the adequacy of the gas pipeline company's leakage program. Gas leak records must contain, at a minimum, the following information:

- (1) Date and time the leak was detected, investigated, reported, and repaired, and the name of the person conducting the investigation;*
- (2) Location of the leak (sufficiently described to allow ready location by other qualified personnel);*
- (3) Leak grade;*
- (4) Pipeline classification (e.g., distribution, transmission, service);*
- (5) If reported by an outside party, the name and address of the reporting party;*
- (6) Component that leaked (e.g., pipe, tee, flange, valve);*
- (7) Size and material that leaked (e.g., steel, plastic, cast iron);*
- (8) Pipe condition;*
- (9) Type of repair;*
- (10) Leak cause;*
- (11) Date pipe installed (if known);*
- (12) Magnitude and location of CGI readings left; and*
- (13) Unique identification numbers (such as serial numbers) of leak detection equipment.*

Finding(s):

There were several instances where leak survey information was incomplete on the leak survey investigation forms. Some examples are provided below:

- a. 1554 Collins 2/24/2010 – There was no indication of the percent (%) gas/air on the operator's form before the leak was repaired. The Heath Consultants' Survey shows this leak having 80% gas and it was classified as a Class II leak. The Heath consultant also has 50 LEL indicated on the bar hole map, but the text states "80% gas is present".
- b. 126 Naches St N 2/25/2010 - This leak has 65% gas over the service line listed on the Heath Consultants' Survey. It was graded as a Class II leak by Heath and listed as a Class III by the operator on the leak survey investigation form. The percent (%) gas/air on the operator's form was missing.
- c. 151 B Street 3/11/2009 – The leak was graded as a Class III leak, but it was indicated that there was 25% gas present.
- d. 1408 Main St 3/10/2009– This leak has 10% gas listed on the leak investigation form and the Heath Consultants' Survey. It was graded as a Class III leak.

7. **WAC 480-93-188 Gas leak surveys.**

- (1) *Each gas pipeline company must perform gas leak surveys using a gas detection instrument covering the following areas and circumstances:*
- (a) *Over all mains, services, and transmission lines including the testing of the atmosphere near other utility (gas, electric, telephone, sewer, or water) boxes or manholes, and other underground structures;*

Finding(s):

The mapping accuracy and currency issue identified in probable violation 2 resulted in the leak surveys not being performed over the services and mains as required.

8. **WAC 480-93-180 Plans and procedures.**

- (1) *Each gas pipeline company must have and follow a gas pipeline plan and procedure manual (manual) for operation, maintenance, inspection, and emergency response activities that is specific to the gas pipeline company's system. The manual must include plans and procedures for meeting all applicable requirements of 49 CFR §§ 191, 192 and chapter 480-93 WAC, and any plans or procedures used by a gas pipeline company's associated contractors.*
- (2) *The manual must be filed with the commission forty-five days prior to the operation of any gas pipeline. Each gas pipeline company must file revisions to the manual with the commission annually. The commission may, after notice and opportunity for hearing, require that a manual be revised or amended. Applicable portions of the manual related to a procedure being performed on the pipeline must be retained on-site where the activity is being performed.*
- (3) *The manual must be written in detail sufficient for a person with adequate training to perform the tasks described. For example, a manual should contain specific, detailed, step-by-step instructions on how to maintain a regulator or rectifier, conduct a leak survey or conduct a pressure test.*

Finding(s):

1. The operator is using an ultrasonic thickness gauge to evaluate the wall thickness of its pipelines. It is also suggested on pg. 106 of their O&M manual to be used when tapping pipelines under pressure. No operator qualification or procedures in the operations and maintenance manual for the use of this equipment were provided. Additionally, the operator indicated they use the ultrasound to ensure the pipe is schedule 40 and not a thinner wall pipe.
2. No records were produced to verify they checked the casings, on the annual cathodic protection survey in accordance with their procedures detailed on Pg. 86 of the O&M manual. It states: "*Tests for electric isolation from the carrier pipe shall be performed annually on all encased gas pipelines. The casing will be checked in the using the interrupter. The on and off potentials will be compared. If the casing exhibits a difference from the carrier pipes "on" and "off" reading, the casing shall be considered shorted. These readings are recorded on the Annual CP Survey form.*" The "on" reading was documented, but not the "off" reading.

3. The atmospheric corrosion survey form shows several sites graded as "4" which, given the operators grading scale, translates to "Heavy Pitting, Pipe Loss." There were no pit gauge measurements or prompt remediation taken on multiple services. The survey was performed in 2007 and several of the services were not remediated until 2010. It appears that pages 94 and 95 of the O&M manual were not followed.
 4. As identified in probable violation 5, no records were available or provided that demonstrated that the foreign leaks identified at 1707 Ryan Rd and 28280 Hwy 410 had the notification to the owner or occupant(s) completed in accordance with pg. 120 of the O&M manual.
9. **49 CFR §192.614 Damage prevention program.**
- (c) *The damage prevention program required by paragraph (a) of this section must, at a minimum:*
 - (1) *Include the identity, on a current basis, of persons who normally engage in excavation activities in the area in which the pipeline is located.*

Finding(s):

The operator provided a list, pg. 106 Table X.B of the O&M manual, which only contained the names of six excavators. After reviewing a local phone directory, it was determined that this was not a current or complete list. The operator provided a hand written updated list at the time of the exit interview and another list that contained excavators. Those records are inconsistent with the list described on pg. 106.

Areas of Concern

The following areas of concern of Title 49, CFR Part 192 and WAC 480-93 were noted as a result of the inspection of the City of Buckley natural gas distribution system in Buckley, WA. These items, if left uncorrected, could potentially lead to future probable violations.

1. **49 CFR §192.617 Investigation of failures.**
Each operator shall establish procedures for analyzing accidents and failures, including the selection of samples of the failed facility or equipment for laboratory examination, where appropriate, for the purpose of determining the causes of the failure and minimizing the possibility of a recurrence

Finding(s):

The operator has an entry on pg. 147 of its O&M manual that states: "*If deemed appropriate, an investigation shall be made to determine the causes of the emergency and steps taken to minimize the possibility of a recurrence. Outside experts should be consulted if necessary.*" The City of Buckley currently has no O&M manual threshold criteria or procedures for determining what will initiate an investigation. Additionally, a process for properly selecting, documenting, and transporting the type(s) of samples or evidence required to conduct an accident or failure investigation is also needed.

2. **WAC 480-93-188 Gas leak surveys.**

- (6) *Each gas pipeline company must perform self audits of the effectiveness of its leak detection and recordkeeping programs. Each gas pipeline company must maintain records of the self audits for five years. Self audits must be performed as frequently as necessary, but not to exceed three years between audits. At a minimum, self audits should ensure that:*
- (a) *Leak survey schedules meet the minimum federal and state safety requirements for gas pipelines;*
 - (b) *Consistent evaluations of leaks are being made throughout the system;*
 - (c) *Repairs are made within the time frame allowed;*
 - (d) *Repairs are effective; and*
 - (e) *Records are accurate and complete.*

Finding(s):

The 2010 and 2011 leak self audits were reviewed. The self audits did not find any issues with the leak program. Several areas for improvement were found during this inspection as indicated in several probable violations related to the leak survey program and leak response. The leak program audit process needs review because issues were found during the inspections that were overlooked by the current self audit process.

3. **WAC 480-93-180 Plans and procedures.**

- (1) *Each gas pipeline company must have and follow a gas pipeline plan and procedure manual (manual) for operation, maintenance, inspection, and emergency response activities that is specific to the gas pipeline company's system. The manual must include plans and procedures for meeting all applicable requirements of 49 CFR §§ 191, 192 and chapter 480-93 WAC, and any plans or procedures used by a gas pipeline company's associated contractors.*
- (2) *The manual must be filed with the commission forty-five days prior to the operation of any gas pipeline. Each gas pipeline company must file revisions to the manual with the commission annually. The commission may, after notice and opportunity for hearing, require that a manual be revised or amended. Applicable portions of the manual related to a procedure being performed on the pipeline must be retained on-site where the activity is being performed.*
- (3) *The manual must be written in detail sufficient for a person with adequate training to perform the tasks described. For example, a manual should contain specific, detailed, step-by-step instructions on how to maintain a regulator or rectifier, conduct a leak survey or conduct a pressure test.*

Finding(s):

- 1. The definitions and guidance for grading internal and external corrosion could not be located in the O&M manual. Classifications like "Good" or "Great" are very subjective and vary from person to person.
- 2. The pressure table 6.B on Pg 66 of the O&M manual needs to be followed when pressure testing. If there is an error with the table, it needs to be corrected.