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February 27, 2012

David Lykken- Director of Pipeline Safety Program
State of Washington Utilities and Transportation Commission
1300 S. Evergreen Park
Dr. SW P.O. Box 47250
Olympia, WA 98504-7250

Subject: Response to Docket PG-110019

Dear Mr. Lykken,

This letter is intended to address all probable state and federal safety code violations and noted areas of concern. We specifically are addressing how and when we plan to bring the probable violations into full compliance. We also are covering our plan to address the areas of concern noted by your inspector, Ms. Zuehlke and expressed in Docket PG-110019. The inspection was conducted on October 17-20, 24-27 and November 7, 2011 at our facilities in Mt. Vernon, WA.

The following is in response to the twenty-one citations noted as probable violations:

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State of Washington
UTC
Pipeline Safety Program

1. WAC 480-93-018 Records

- (1) *Each gas pipeline company must maintain records sufficient to demonstrate compliance with all requirements of 49 CFR § 191, 192 and chapter 480-93WAC*
- (2) *Each gas pipeline company must give the commission access to records for review during an inspection and must provide the commission copies of records upon request.*
- (3) *Each gas pipeline company must maintain a list of forms and data bases, 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.*
- (4) *Each gas pipeline company must record and maintain records of the actual value of any required reads, tests, surveys or inspections performed. The records must include the name of the person who performed the work and the date the work was performed. The records must also contain information sufficient to determine the location and facilities involved. Examples of the values to be recorded include, but are not limited to, pipe to soil potential reads, rectifier reads, pressure test levels, and combustible gas indicator reads. A gas pipeline company may not record a range of values unless the measuring device being used provides only a range of values.*
- (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.*
- (6) *If a gas pipeline company believes a record provided to the commission is confidential as that term is defined in WAC 480-07-160(2), the gas pipeline company must follow the procedures in WAC 480-07-160 for designating and treating that record as confidential.*

1. Finding(s):

CNG failed to record both actual and accurate pressure test data on their High Pressure Line Project Record Sheet for Project#178132 Line 1 Anacortes Transmission Line Brickyard Creek Washout. The testing documentation noted on the CNG Strength Test Data Report is also inaccurate.

- a. Actual test duration is 14.7 hours. Test duration recorded is 8 hours.
- b. Actual test pressure is 860 psi but is also recorded as 750 psi.

2. **Finding(s):**
CNG failed to provide evidence of holiday detection and repair records for transmission pipeline construction at Line 1 Anacortes Similk Bay Golf Course Hwy 20 in October 2011.
3. **Finding(s):**
CNG failed to provide High Occupancy (HO) leak survey records for HO's outside business districts for the year 2009 that did not have a meter and/or a service. CNG completed HO leak surveys in 2010 and 2011.
4. **Finding(s):**
CNG failed to record leak survey records for reads taken at casing locations which failed Tinker Raser tests.
 - a. Survey method
 - i. Blackburn Rd. & St. Hwy I-5, Mt. Vernon- 2010
 - ii. Blackburn Rd. & St. Hwy I-5, Mt. Vernon- 2011
 - iii. La Conner Whitey Rd. & Flats Rd., La Conner-2010
 - b. Instrument tracking or identification number
 - i. Blackburn Rd. & St. Hwy I-5, Mt. Vernon- 2010
 - ii. Blackburn Rd. & St. Hwy I-5, Mt. Vernon- 2011
 - iii. La Conner Whitey Rd. & Flats Rd., La Conner- 2010
5. **Finding(s):**
CNG failed to provide IM HCA assessment records (including the timeline) for 2007. Pipeline casing assessment records were also part of this request.
6. **Finding(s):**
CNG failed to maintain a list of forms and/or databases that specify what records the company maintains for recording compressor station required data such as operations and maintenance information.
7. **Finding(s):**
CNG failed to provide evidence of compressor station maintenance records for the year 2008.

Cascade Response:

PV1-1

CNGC does not agree with Staff that this is a probable violation. The information stated in the Test pressure and Duration section of the CNGC Strength Test Data Report are the minimum design requirements as stated in CP665.045. However, the actual test results were recorded in the "Full Test" section of that report (see Exhibit A).

PV1-2

CNGC does not agree with Staff that this is a probable violation. CNGC did perform an Alternating Current Voltage Gradient (ACVG) coating survey that demonstrated there were no indications detected (see Exhibit B). This demonstrates the integrity and safety of the pipeline that was installed.

PV1-3

CNGC did perform a High Occupancy leak survey in 2009. CNGC acknowledges that we did not perform surveys on HOS with no meter and/or service. However, CNGC did perform HO leak surveys on these HOS in 2010 and 2011. CNGC believes that these types of situations will decrease as we implement the Quality Assurance Program as agreed to in the Settlement Agreement items number Three.

PV1-4

CNGC acknowledges that company procedures do not include the level of detail required for performing leak surveys associated with shorted casing failed Tinker Raser tests in CP755. This issue has been added to CNGC's company procedure discrepancy list and will be corrected. These types of issues will be addressed in Docket 110443 Settlement Agreement items numbers One, Two and Six.

PV1-5

During the inspection, Staff reviewed random examples of the 2007 HCA assessments. Staff did not request copies of the documentation. CNGC does have a timeline for the completion of the HCA assessments. The ECDA is scheduled to be completed on all HCA's except 170108-07 and 170208-01 by January 2012, with 170108-07 and 170208-01 to be completed in May 2012 (see Exhibit C). CNGC has also performed some casing assessments but not all have been assessed to date.

PV1-6

While CNGC acknowledges that we have not updated the compressor station procedure to include explicit instructions, the maintenance checklist for the compressor is located within CP 742 instructions. Procedural issues have been added to CNGC's company procedure discrepancy list and will be corrected. These types of issues will be addressed in Docket 110443 Settlement Agreement items numbers One, Two and Six.

PV1-7

While CNGC could not locate the completed forms documenting the compressor maintenance, CNGC has the Compressor log book that contains information demonstrating that CNGC performed the maintenance in 2008 (see Exhibit D). These types of issues will be addressed in the Settlement Agreement items number Two and Three.

2. WAC 480-93-160 Reporting requirements of proposed construction

(2) The report must describe the proposed route and the specifications for the pipeline and must include, but is not limited to, the following items:

- (a) Description and purpose of the proposed pipeline;*
- (b) Route map showing the type of construction to be used throughout the length of the line, and delineation of class location as defined in 49 CFR Part 192.5, and incorporated boundaries along the route. Aerial photographs must be submitted upon request;*
- (c) Location and specification of principal valves, regulators, and other auxiliary equipment to be installed as a part of the pipeline system to be constructed;*
- (d) MAOP for the gas pipeline being constructed;*
- (e) Location and construction details of all river crossings or other unusual construction requirements encountered en route, e.g., places where pipe will be exposed or it is impractical to provide required cover, bridge crossings, lines to be laid parallel to railroads or state highways, including encroachments, and any other areas requiring special or unusual design and construction considerations;*
- (f) Proposed corrosion control program to be followed including specifications for coating and wrapping, and the method to ensure the integrity of the coating using holiday detection equipment;*
- (g) Welding specifications; and*
- (h) Bending procedures to be followed if needed*

1. Finding(s):

CNG failed to identify welding specifications in their proposed construction report filed with the commission on June 13, 2011, for their Anacortes Phase I Project.

2. Finding(s):

CNG failed to identify specifications regarding the method using ensure the integrity of the coating using holiday detection equipment in their proposed construction report filed with the commission on June 13, 2011, for their Anacortes Phase I Project.

Cascade Response:

PV2-1

CNGC does not agree with Staff that there is a probable violation. This line is classified as H.P. Main running at 16.35% SMYS and is not a transmission line. Therefore, CNGC was not required to file a proposed construction report to the WUTC. The report referred to in the probable violation was not a proposed construction report. The report submitted to the WUTC was a proximity request of the installation of the new 12" pipeline.

PV2-2

As stated in PV2-1, CNGC was not required to submit a report to the WUTC for the Anacortes Phase 1 Project.

3. WAC 480-93-160 Reporting requirements of proposed construction.

(1) Each gas pipeline company must file a proposed construction report with the commission at least forty five days prior to construction or replacement of any segment of a gas transmission pipeline equal to or greater than one hundred feet in length. Emergency repairs are exempt from this section.

1. Finding(s):

CNG failed to file proposed construction reports with the commission prior to construction or replacement of Line 1 Anacortes (Golf Course & Hwy 9) at Brickyard Creek- approx. 363ft and operating at 21.85% SMYS in 2010.

2. Finding(s):

CNG failed to file proposed construction reports with the commission prior to construction or replacement of Line 1 Anacortes Similk Bay Golf Course Hwy 20 approx. 117ft and operating at 21.85% SMYS in 2011.

Cascade Response:

PV3-1

CNGC does not agree with Staff that there is a probable violation. The line installed is classified as H.P. running at 16.35% SMYS and is not a transmission line. Therefore, CNGC was not required to file a proposed construction report to the WUTC.

PV3-2

CNGC does not agree with Staff that there is a probable violation. The line installed is classified as H.P. running at 16.35% SMYS and is not a transmission line. Therefore, CNGC was not required to file a proposed construction report to the WUTC.

4. 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.

1. Finding(s):

CNG failed to follow procedures in CP 665 for testing Line 1 8" Anacortes Transmission, Mt. Vernon.

- a. Evidence of engineering approval and designation for the high pressure main tests at this location.
- b. CNG tested this segment of pipe above 20% SMYS (actual test > 28% SMYS-860psig). No line walk records checking for leaks during testing accompanied test records.

- c. No analysis of pressure test data approving or rejecting pressure this 14.7 hour test or the associated 2 psig pressure loss during test
2. **Finding(s):**
CNG failed to follow leak survey procedures required by procedure CP 755.063. CNG has indicated that personnel complete a leak survey for shorted casing conditions by taking a gas reading at the vent only- this procedure does not meet leak survey requirements of WAC 480-93-188.
3. **Finding(s):**
CNG failed to follow procedure CP 745.10 by installing vents in a downward position to protect from water. The following vents were found installed in a horizontal orientation:
a. Regulator Station R-116 – 1 horizontal vent. The last two annual maintenance records identify rainwater in the relief.
b. Regulator Station R-89, 90, 91, 134-5 horizontal vents.
c. Regulator Station R-41, 220, 149-2 horizontal vents.
d. Regulator Station R-83-2 horizontal vents.
4. **Finding(s):**
CNG failed to follow leak survey procedures for shorted casings.
a. Blackburn Rd. & St. Hwy I-5, Mt. Vernon- 2010
b. Blackburn Rd. & St. Hwy I-5, Mt. Vernon- 2011
c. La Conner Whitey Rd. & Flats Rd., La Conner- 2010
5. **Finding(s):**
CNG procedures fail to include the following in their compressor station procedures (CP 742):
a. Procedures for compressor station maintenance,
b. Procedures for compressor station monitoring, and
c. Procedures for compressor station operating.
6. **Finding(s):**
CNG failed to correct their compressor station procedures CP 742.06 after the disconnection and/or notification that their remote controlled shut-off valves were no longer operative and/or became inactive.
7. **Finding(s):**
CNG failed to follow their remote shutdown device procedure CP 742.063 and only operate the compressor with qualified personnel on-site until the controls are repaired.
8. **Finding(s):**
CNG failed to correct their compressor station procedures CP 742.091. This procedure references the use of an Ellipse software format. The format CNG uses is JDE asset maintenance management software.

Cascade Response:

PV4-1a

CNGC acknowledges that we do not have formal written approval of the testing. Only verbal approval was obtained from Engineering as the test design did not deviate from those stated in CP665 Table 4 Pressure Tests for High Pressure Lines.

PV4-1b

CNGC does not agree with Staff that this is a probable violation. The pressure test record indicates that a leak test was performed on the new pipe. Per CP665.046, either a leak test or a line walk is required. As the leak test was performed, a line walk is not required.

PV4-1c

CNGC does not agree with Staff that this is a probable violation. Per CP665.046 #3, Engineering analysis is only required if the pipe 500 feet in length. The pipe cited in this probable violation is less than 500 feet.

PV4-2

CNGC is currently taking steps to resolve this issue. Please refer to CNGC response to PVI-4 as this was a same issue.

PV4-3a-d

Corrective action has been taken and all vents at the cited locations have been turned in a downward direction. CNGC has performed refresher training at the Mt. Vernon District to have all vents in a downward direction. CNGC would like to note that two of the regulator stations cited, R-220 and R-149 do not exist in the Mt. Vernon district. These types of issues will be addressed in Docket 110443 Settlement Agreement items numbers Three and Eight.

PV4-4

CNGC is currently taking steps to resolve this issue. Please refer to CNGC response to PVI-4 as this was a same issue.

PV4-5

CNGC acknowledges that we have not updated the compressor station procedures. These issues have been added to CNGC's company procedure discrepancy list and will be corrected. These types of issues will be addressed in Docket 110443 Settlement Agreement items numbers One, Two and Six.

PV4-6

CNGC is currently taking steps to resolve this issue. Please refer to CNGC response to PV4-5 as this is the same issue.

PV4-7

CNGC is currently taking steps to resolve this issue. Please refer to CNGC response to PV4-5 as this is the same issue.

PV4-8

CNGC is currently taking steps to resolve this issue. Please refer to CNGC response to PV4-5 as this is the same issue.

5. **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.*

1. **Finding(s):**

CNG failed to follow their procedure CP 605.0491 Holiday Detection and Repair by not jeeping newly installed transmission pipeline for Line 1 Anacortes Similk Bay Golf Course Hwy 20 in October 2011.

2. **Finding(s):**

CNG failed to update their procedure CP 605.0491 and failed to inform employees of the mandatory requirement of electronic jeeping in accordance with Docket 082195.

3. **Finding(s):**

CNG failed to update their Holiday Detection and Repair procedure CP 605.0491 in 2010 and 2011. CNG provided UTC with an interpretation/clarification (dated May 5, 2010) of this procedure regarding the mandatory requirement of electronic jeeping as follows: "Going forward we will jeep, with a jeeping machine, all new coated steel pipe 4" and larger."

4. Finding(s):

CNG failed to follow procedures CP 710.133 or CP 710.141 Coating and Painting Standards by not recording 'jeeped at' settings in relation to pipe size and coating thickness requirements for the transmission pipeline Line 1 Anacortes Similk Bay Golf Course Hwy 20 in October 2011.

Cascade Response:

PV5-1

CNGC acknowledges that CP 605 states that standard practice for Holiday Detection is with jeeping equipment for pipeline construction of 4" or larger. On this particular project, PRITEC coated pipe was utilized. This pipe is typically used for bore pipe installations in which holiday detection is performed after the bore is completed. CNGC installed this pipe in an open trench with rock free native soil and lowered the pipe and observed shading and backfill. CNGC then performed holiday detection on the PRITEC pipe after installation (see Exhibit B). CNGC would like to note that PRITEC is a two layer anti-corrosion coating designed to protect pipes. It is an industry standard for use in natural gas pipelines as the two layer coating protects the pipe from the stresses of handling, laying and backfilling. PRITEC also resists cathodic disbondment. This pipe complies with the following minimum standards and specifications: CSA Z245.21, AWWA C215, AS/NZL 1518, NACE SP0185, ISO 10080 and ISO 9001:2008.

PV5-2

CNGC acknowledges that we failed to update CP 605 with the jeeping requirements. This issue has been added to CNGC's company procedure discrepancy list and will be corrected. These types of issues will be addressed in Docket 110443 Settlement Agreement items numbers one, two and six.

PV5-3

CNGC is currently taking steps to resolve this issue. Please refer to CNGC response to PV5-2 as this is the same issue.

PV5-4

CNGC acknowledges that we did not perform holiday detection via jeeping on the pipeline that was installed and therefore would have not recorded settings for jeeping. These records were provided to Staff regarding holiday detection on 11/07/11 (see Exhibit B).

6. 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;*
 - (b) *Through cracks in paving and sidewalks;*
 - (c) *On all above ground piping (may be checked with either a gas detection instrument or with a soap solution);*
 - (d) *Where a gas service line exists, the gas pipeline company must conduct a leak survey at the building wall at the point of entrance, using a bar hole if necessary; and*
 - (e) *Within all buildings where gas leakage has been detected at the outside wall, at locations where escaping gas could potentially migrate into and accumulate inside the building.*

1. Finding(s):

CNG failed to provide records which identify leak surveys were completed over the following pipeline in Section 1 of 2010:

- a. 100 Gilkey Rd., Burlington
- b. 102 Gilkey Rd., Burlington
- c. 107 Gilkey Rd., Burlington
- d. 108 Gilkey Rd., Burlington
- e. 112 Gilkey Rd., Burlington
- f. 202 Gilkey Rd., Burlington
- g. 304 Gilkey Rd., Burlington
- h. 306 Gilkey Rd., Burlington
- l. 310 Gilkey Rd., Burlington

- j. 1010 Spruce St., Burlington
- k. 1020 Spruce St., Burlington
- l. 1026 Spruce St., Burlington
- m. 1170 Spruce St., Burlington
- n. 1180 Spruce St., Burlington
- o. 1192 Spruce St., Burlington
- p. Intersection on E side Burlington Northern Santa Fe Railroad R/W at Gilkey Rd

2. **Finding(s):**

CNG failed to demonstrate that leak surveys were conducted over the pipeline at or near locations where severely overgrown vegetation (blackberry bushes) occurs over their pipeline and/or the right-of-way remains un-cleared.

- a. R-18
- b. R-19
- c. R-83

Cascade Response:

PV6-1

CNGC acknowledges that records do not indicate that the leak surveys for these specific locations were completed in 2010. However, CNGC believes that these locations were surveyed in 2010. These locations were also surveyed in 2011 and no leaks were identified for any of these locations. Furthermore, CNGC believes that these types of situations will decrease as we implement the Quality Assurance Program as agreed to in the Settlement Agreement item number Two.

PV6-2

CNGC does not agree with Staff that this is a probable violation. CNGC did perform leak surveys at these locations. CNGC is aware of the potential for overgrowth in these right-of-way locations and will continue to monitor overgrowth.

7. **WAC 480-93-188 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.*

Finding(s):

CNG failed to record and/or failed to maintain records for the following leak survey casing surveys:

- a. Blackburn Rd. & St. Hwy I-5, Mt. Vernon 01.06.10-02.03.10
 - i. Survey maps
 - ii. Survey method
 - iii. Instrument tracking or identification number
- b. La Conner Whitney Rd. & Flats Rd., La Conner 01.06.11 –03.10.11
 - i. Survey maps
 - ii. Survey method
 - iii. Instrument tracking or identification number
- c. Blackburn Rd. & St. Hwy I-5, Mt. Vernon 01.06.11 –03.10.10
 - i. Survey maps
 - ii. Survey method
 - iii. Instrument tracking or identification number

Cascade Response:

PV7-a

CNGC is currently taking steps to resolve this issue. Please refer to CNGC response to PV1-4 as this is the same issue.

PV7-b

CNGC is currently taking steps to resolve this issue. Please refer to CNGC response to PV1-4 as this is the same issue.

PV7-c

CNGC is currently taking steps to resolve this issue. Please refer to CNGC response to PV1-4 as this is the same issue.

8. 49 CFR §192.461 External corrosion control: Protective coating.

- (a) *Each external protective coating, whether conductive or insulating, applied for the purpose of external corrosion control must-*
 - (1) *Be applied on a properly prepared surface;*
 - (2) *Have sufficient adhesion to the metal surface to effectively resist underfilm migration of moisture;*
 - (3) *Be sufficiently ductile to resist cracking;*
 - (4) *Have sufficient strength to resist damage due to handling and soil stress; and,*
 - (5) *Have properties compatible with any supplemental cathodic protection.*
- (b) *Each external protective coating which is an electrically insulating type must also have low moisture absorption and high electrical resistance.*
- (c) *Each external protective coating must be inspected just prior to lowering the pipe into the ditch and backfilling, and any damage detrimental to effective corrosion control must be repaired.*
- (d) *Each external protective coating must be protected from damage resulting from adverse ditch conditions or damage from supporting blocks.*
- (e) *If coated pipe is installed by boring, driving, or other similar method, precautions must be taken to minimize damage to the coating during installation*

Finding(s):

CNG failed to properly inspect the external protective coating prior to lowering the pipeline into the ditch at Line 1 Anacortes Similk Bay Golf Course Hwy 20 in October 2011.

Cascade Response:

CNGC is currently taking steps to resolve this issue. Please refer to CNGC response to PV5-2 as this is the same issue.

9. 49 CFR §192.471 External corrosion control: Test leads.

- (a) *Each test lead wire must be connected to the pipeline so as to remain mechanically secure and electrically conductive.*
- (b) *Each test lead wire must be attached to the pipeline so as to minimize stress concentration on the pipe.*
- (c) *Each bared test lead wire and bared metallic area at point a, (connection to the pipeline must be coated with an electrical insulating material compatible with the pipe coating and the insulation on the wire.*

Finding(s):

CNG failed to attach test lead wire to the pipeline so as to minimize stress concentration on the pipe. The use of the metal disk and fillet welding clearly does not minimize stress to the pipe - especially, considering the commonly used practice of cad welding.

Per PHMSA, the method CNG has chosen to attach test leads is not best practice and may increase the risk of a pipeline failure such as, in-service cracking of the fillet weld; any defects in the fillet weld can be subjected to hoop stresses leading to failure, and if the fillet weld is not all way around or has defects that allows moisture in shielded corrosion can develop between the pipe and steel attachment.

CNG must take prompt action to address the identified conditions at all locations where test lead coupons have been installed. CNG's action and response shall be in accordance with 49 CFR 192 Subpart O. This issue will be addressed under Docket 110443 Settlement Agreement item numbers Two, Three, Four, and Six.

Cascade Response:

As advised by the WUTC, CNGC is currently developing a cadweld procedure and training module. At a 02/03/12 meeting between the WUTC (Mr. Subsits and Mr. Lykken) and CNGC, agreement was reached that no issue or review is required for the coupons installed prior to the implementation of the new CNGC cadweld procedure and that CNGC will continue to install coupons using their current procedure until the new CNGC cadweld procedure is implemented. As stated in the finding, this issue will be addressed under Docket 110443 Settlement Agreement item numbers Two, Three, Four and Six.

10. WAC 480-93-110 Corrosion control.

- (5) *Each gas pipeline company must conduct inspections or tests for electrical isolation between metallic pipeline casings and metallic pipelines at/least once annually, but no/to exceed fifteen months between inspections or tests. The test or inspection must also determine whether the pipeline has adequate levels of cathodic protection at the casing to pipeline interface. These requirements do not apply to unprotected copper inserted in ferrous pipe.*
- (a) *For each casing installed prior to September 5, 1992, that does not have test leads, the gas pipeline company must be able to demonstrate that other test or inspection methods are acceptable and that test lead wires are not necessary to monitor for electrical isolation and adequate cathodic protection levels.*
- (b) *Whenever electrical isolation tests or inspections indicate that a possible shorted condition exists between a casing and a pipeline, the gas pipeline company must conduct a follow-up test within ninety days to determine whether an actual short exists. The gas pipeline company's procedures manual must have a level or threshold that would indicate a potential shorted condition and must also detail the method of determining whether the casing is actually shorted to the pipeline.*
- (c) *The gas pipeline company must clear the shorted condition where practical.*
- (d) *Whenever a short exists between a line pipe and casing, the gas pipeline company must perform a leak survey within ninety days of discovery and at least twice annually thereafter, but not to exceed seven and one-half months between leak surveys until the shorted condition is eliminated*

Finding(s):

CNG failed to provide required leak survey records for shorted casings.

- a. Blackburn Rd. & St. Hwy 1-5, Mt. Vernon 01.06.10-02.03.10
b. Blackburn Rd. & St. Hwy 1-5, Mt. Vernon 01.06.11 -02.03.11

Cascade Response:

PV10-a and b

CNGC is currently taking steps to resolve this issue. Please refer to CNGC response to PV1-4 as this is the same issue.

11. 49 CFR §192.603 General provisions.

- (a) *No person may operate a segment of pipeline unless it is operated in accordance with this subpart.*
- (b) *Each operator shall keep records necessary to administer the procedures established under § 192.605.*
- (c) *The Administrator or the State Agency that has submitted a current certification under the pipeline safety laws, (49 U.S.C. 60101 et seq.) with respect to the pipeline facility governed by an operator's plans and procedures may, after notice and opportunity for hearing as provided in 49 CFR 190.237 or the relevant State procedures, require the operator to amend its plans and procedures as necessary to provide a reasonable level of safety.*

Finding(s):

CNG has failed to correct and/or update their company compressor station procedures manual. CNG is using an on-site start-up procedure for their compressor station that are not part of the company procedures manual

Cascade Response:

CNGC acknowledges that the O&M manual reviews were not properly updated and documented. CNGC believes that this issue will be addressed under Docket I 10443 Settlement Agreement item number Six.

12. **49 CFR §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 one 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.*

Finding(s):

CNG failed to provide records showing updates for procedural manual(s) for operations, maintenance, and emergencies updates (including OQ procedures) at intervals not exceeding 15 months.

Cascade Response:

CNGC is currently taking steps to resolve this issue. Please refer to CNGC response to PV11-1 as this is the same issue.

13. **49 CFR §192.605 Procedural manual for operations, maintenance, and emergencies.**

- (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.*
- (1) *Operating, maintaining, and repairing the pipeline in accordance with each of the requirements of this subpart and Subpart M of this part.*
 - (2) *Controlling corrosion in accordance with the operations and maintenance requirements of Subpart I of this part.*
 - (3) *Making construction records, maps, and operating history available to appropriate operating personnel.*
 - (4) *Gathering of data needed for reporting incidents under Part 191 of this chapter in a timely and effective manner*
 - (5) *Starting up and shutting down any part of the pipeline in a manner designed to assure operation within the MAOP limits prescribed by this part, plus the build-up allowed for operation of pressure-limiting and control devices.*
 - (6) *Maintaining compressor stations, including provisions for isolating units or sections of pipe and for purging before returning to service.*
 - (7) *Starting, operating and shutting down gas compressor units.*
 - (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 procedure when deficiencies are found.*
 - (9) *Taking adequate precautions in excavated trenches to protect personnel from the hazards of unsafe accumulations of vapor or gas, and making available when needed at the excavation, emergency rescue equipment, including a breathing apparatus and, a rescue harness and line.*
 - (10) *Systematic and routine testing and inspection of pipe-type or bottle-type holders including-*

- (i) *Provision for detecting external corrosion before the strength of the container has been impaired;*
- (ii) *Periodic sampling and testing of gas in storage to determine the dew point of vapors contained in the stored gas which, if condensed, might cause internal corrosion or interfere with the safe operation of the storage plant; and,*
- (iii) *Periodic inspection and testing of pressure limiting equipment to determine that it is in safe operating condition and has adequate capacity.*
- (11) *Responding promptly to a report of a gas odor inside or near a building, unless the operator's emergency procedures under §192.615(a)(3) specifically apply to these reports.*
- (12) *Implementing the applicable control room management procedures required by § 192.631.*

1. Finding(s):

CNG Fredonia compressor station procedures fail to include provisions for purging before returning to service.

2. Finding(s):

CNG did not have an emergency plan for the Fredonia compressor station on-site.

Cascade Response:

PV13-1

CNGC is currently taking steps to resolve this issue. Please refer to CNGC response to PV4-5 as this is the same issue.

PV13-2

CNGC is currently taking steps to resolve this issue. Please refer to CNGC response to PV4-5 as this is the same issue.

14. 49 CFR §192.609 Change in class location: Required study.

Whenever an increase in population density indicates a change in class location for a segment of an existing steel pipeline operating at a hoop stress that is more than 40 percent of SMYS, or indicates that the hoop stress corresponding to the established maximum allowable operating pressure for a segment of existing pipeline is not commensurate with the present class location, the operator shall immediately make a study to determine;

- (a) *The present class location for the segment involved.*
- (b) *The design, construction, and testing procedures followed in the original construction, and a comparison of these procedures with those required for the present class location by the applicable provisions of this part.*
- (c) *The physical condition of the segment to the extent it can be ascertained with available records;*
- (d) *The operating and maintenance history of the segment;*
- (e) *The maximum actual operating pressure and the corresponding operating hoop stress, taking pressure gradient into account, for the segment of pipeline involved; and,*
- (f) *The actual area affected by the population density increase, and physical barriers or other factors which may limit further expansion of the more densely populated area.*

Finding(s):

CNG failed to provide class location study records that demonstrate compliance. The record provided to staff as CNG's class location study record was titled "Transmission Mains-by Class Location" and dated 12.31.09, identifies footages of main. CNG compliance hand wrote "Class Location Study" on the top of the document at the time of inspection. Staff is concerned that compliance is providing documents to staff whose purpose and use is not what has been represented to staff during the inspection.

Cascade Response:

CNGC's practice is to design and operate all of its pipeline systems to class location 4 standards which are the most restrictive design and operating standards. A class location study for all of CNGC's transmission pipelines is planned to be completed by December 31, 2012. CNGC does not agree that Staff was provided documentation that did not represent a Class Location Study. The hand written notation was for clarity purposes and did not change the information provided in the document.

15. **49 CFR §192.613 Continuing Surveillance.**

- (a) *Each operator shall have a procedure for continuing surveillance of its facilities to determine and take appropriate action concerning changes in class location, failures, leakage history, corrosion, substantial changes in cathodic protection requirements, and other unusual operating and maintenance conditions.*
- (b) *If a segment of pipeline is determined to be in unsatisfactory condition but no immediate hazard exists, the operator shall initiate a program to recondition or phase out the segment involved, or, if the segment cannot be reconditioned or phased out, reduce the maximum allowable operating pressure in accordance with §192.619 (a) and (b).*

Finding(s):

CNG failed to complete and failed to provide class location studies in response to staff request for Integrity Management (IM) Class Location and Class Location Change records and documentation for the following Transmission Pipelines:

- a. 16" Fredonia Pipeline #14
- b. 16" March Point Pipeline#16
- c. 8" Anacortes Pipeline# 1
- d. 8" March Point Pipeline #2

Cascade Response:

CNGC is currently taking steps to resolve this issue. Please refer to CNGC response to PV14 as this is the same issue.

16. **49 CFR §192.739 Pressure limiting and regulating stations: Inspection and testing.**

- (a) *Each pressure limiting station, relief device (except rupture discs), and Pressure regulating station and its equipment must be subjected at intervals not exceeding 15 months, but at least once each calendar year, to inspections and tests to determine that it is-*
 - (1) *In good mechanical condition;*
 - (2) *Adequate from the standpoint of capacity and reliability of operation for the service in which it is employed;*
 - (3) *Except as provided in paragraph (b) of this section, set to control or relieve at the correct pressure consistent with the pressure limits of §192.201(a); and*
 - (4) *Properly installed and protected from dirt, liquids, or other conditions that might prevent proper operation.*

1. **Finding(s):**

CNG failed to properly install and protect Regulator Station R-83 from dirt or other conditions that might prevent proper operation. Staff found a horizontally installed regulator vent completely plugged with dirt.

2. **Finding(s):**

CNG failed to maintain Regulator Station R-83 in good mechanical condition. Staff found a horizontally installed regulator vent missing a screen and was plugged with dirt.

Cascade Response:

PV16-1

Corrective action has been taken. R-83 has been mitigated to protect it from dirt or other conditions and the vent has been turned in a downward direction. CNGC believes that this issue will be addressed under Docket 110443 Settlement Agreement item numbers Three and Eight.

CNGC took steps to resolve this issue. Refer to CNGC response to PV16-1 as this is the same issue.

17. 49 CFR §192.805 Qualification program.

Each operator shall have and follow a written qualification program. The program shall include provisions to:

- (a) Identify covered tasks;*
- (b) Ensure through evaluation that individuals performing covered tasks are qualified;*
- (c) Allow individuals that are not qualified pursuant to this subpart to perform a covered task if directed and observed by an individual that is qualified;*
- (d) Evaluate an individual if the operator has reason to believe that the individual's performance of a covered task contributed to an incident as defined in Part 191;*
- (e) Evaluate an individual if the operator has reason to believe that the individual is no longer qualified to perform a covered task;*
- (f) Communicate changes that affect covered tasks to individuals performing those covered tasks; and*
- (g) Identify those covered tasks and the intervals at which evaluation of the individual's qualifications is needed.*
- (h) After December 16, 2004, provide training, as appropriate, to ensure that individuals performing covered tasks have the necessary knowledge and skills to perform the tasks in a manner that ensures the safe operation of pipeline facilities; and*
- (i) After December 16, 2004, notify the Administrator or a state agency participating under 49 U.S.C. Chapter 601 if the operator significantly modifies the program after the Administrator or state agency has verified that it complies with this section*

Finding(s):

CNG does not have an Operator qualification plan for compressor station operation that meets with regulatory requirements.

- a. CNG failed to identify a comprehensive list of compressor station covered tasks in operator qualification documents: 1700DOT731, 1720DOT731, and 1740DOT731.
CNG identified they have been working with Interflux Training to enhance and expand the level of maintenance they presently complete and improve skill levels of employees.
- b. CNG failed to update their operator qualification plan. CNG's DIF Analysis Decision Tree for Operator Qualification Task form identifies the qualification evaluator as Director of Field Operations, E.W. who retired in 2009.
- c. CNG does not have a subject matter expert on staff and has not established and documented provisions to ensure contractors hired to perform covered tasks at compressor stations is consistent with the operator's requirements.
- d. CNG failed to provide training, as appropriate, to ensure that individuals performing covered tasks have the necessary knowledge and skills to perform the tasks in a manner that ensures the safe operation of pipeline facilities.
CNG employees have been unqualified to perform covered tasks on compressor station due to only having been qualified by the method of on-the-job performance.
- e. CNG failed to provide training to individuals performing leak surveys required by procedure CP 755.063. CNG has indicated that personnel complete a leak survey for shorted casing conditions by taking a gas reading at the vent only this procedure does not meet leak survey requirements of WAC 480-93-188.

Cascade Response:

PV17-a

The covered tasks for the operator qualification are documented in Task Sheets 1700DOT, 1720DOT and 1740DOT. CNGC reviewed the Task Sheets and believe that they provide the required level of detail for training purposes of the

covered tasks. As stated in the finding, Enerflex Training was completed in September 2011 to enhance and expand our employee skill levels.

PV17-b

CNGC is revising the DIF Analysis Decision Trees for 1700DOT, 1720DOT and 1740DOT to remove EW as the Director of Field Operations.

PV17-c

CNGC is currently identifying the Subject Matter Expert. However, CNGC has district employees that are fully qualified to operate and maintain the compressor. CNGC has established and documented provision that ensures contractors are qualified per CP503, Operator Qualifications.

PC17-d

All employees were trained by Enerflex training in Sept 2011. This training included classroom training followed by written examination. Employees became qualified after passing the written test. Additionally, CNGC attended external training programs (see Exhibit E).

PV17-e

This probable violation is not affiliated with the compressor operation as stated in the finding as CP755 is for Casing Surveys which is the same issue as identified in PV1-4. Regarding training for CP755.063, it is covered by Task 1320DOT Pipe to Soil Reads and Leak survey training is covered by Task 1600DOT Leak Survey. This training is provided to employees who are required to perform these tasks.

18. 49 CFR §192.809 General.

- (a) *Operators must have a written qualification program by April 27, 2001. The program must be available for review by the Administrator or by a state agency participating under 49 U.S.C. Chapter 601 if the program is under the authority of that state agency.*
- (b) *Operators must complete the qualification of individuals performing covered tasks by October 28, 2002.*
- (c) *Work performance history review may be used as a sole evaluation method for individuals who were performing a covered task prior to October 26, 1999.*
- (d) *After October 28, 2002, work performance history may not be used as a sole evaluation method*
- (e) *After December 16, 2004, observation of on-the-job performance may not be used as the sole method of evaluation*

Finding(s):

CNG failed to qualify their compressor station operators in accordance with this regulation since December 17, 2004. CNG uses observation of on-the-job performance as their sole method of evaluation as identified in their operator qualification documents: 1700DOT731, 1720DOT731, and 1740DOT731.

Staff recommends that CNG correct their OQ program/plan to include two methods of evaluation and immediately obtain properly qualified individuals to operate and maintain their compressor station until their staff is properly trained and qualified in accordance with this regulation.

Cascade Response:

PV18

CNGC does not solely utilize on-the-job performance as the method of evaluation. The 2011 Enerflex training included classroom instruction and a written examination as stated in CNGC response to PV17-d. CNGC is revising the Task Sheets to reflect this requirement. As stated in PV17-d, CNGC has had district employees qualified in accordance with this regulation by attending external training.

19. **49 CFR §199.101 Anti-drug plan.**

- (a) *Each operator shall maintain and follow a written anti-drug plan that conforms to the requirements of this part and the DOT Procedures. The plan must contain-*
- (1) *Methods and procedures for compliance with all the requirements of this part, including the employee assistance program;*
 - (2) *The name and address of each laboratory that analyzes the specimens collected for drug testing; and*
 - (3) *The name and address of the operator's Medical Review Officer, and Substance Abuse Professional; and,*
 - (4) *Procedures for notifying employees of the coverage and provisions of the plan.*
- (b) *The administrator or the State Agency that has submitted a current certification under the pipeline safety laws (49 U.S.C. 60101 et seq.) with respect to the pipeline facility governed by an operator's plans and procedures may, after notice and opportunity for hearing as provided in 49 CFR 190.237 or the relevant State procedures, require the operator to amend its plans and procedures as necessary to provide a reasonable level of safety.*

Finding(s):

CNG failed to maintain and follow their Alcohol Misuse Prevention Plan. CNG procedure CP72A XII.A. requires the EAP information will be displayed on bulletin boards, employee break rooms, locker rooms, etc. and distributed to employees. It was not.

Cascade Response:

EAP posters and pamphlets have been posted at the Mt. Vernon district office.

20. **49 CFR §199.245 Contractor employees.**

- (a) *With respect to those covered employees who are contractors or employed by a contractor, an operator may provide by contract that the alcohol testing, training and education required by this subpart be carried out by the contractor provided:*
- (b) *The operator remains responsible for ensuring that the requirements of this subpart and part 40 of this title are complied with; and*
- (c) *The contractor allows access to property and records by the operator, the Administrator, any DOT agency with regulatory authority over the operator or covered employee, and, if the operator is subject to the jurisdiction of a state agency, a representative of the state agency for the purposes of monitoring the operator's compliance with the requirements of this subpart and part 40 of this title*

Finding(s):

CNG failed to provide records showing that contractor employees from Northwest Inspections completing NDT Drug and Alcohol documentation has been reviewed and is on file.

Cascade Response:

CNGC is working with Northwest Inspection to obtain records on their Drug and Alcohol program.

21. **49 CFR §192.905 How does an operator identify a high consequence area?**

- (a) *General. To determine which segments of an operator's transmission pipeline system are covered by this subpart, an operator must identify the high consequence areas. An operator must use method (1) or (2) from the definition in § 192.903 to identify a high consequence area. An operator may apply one method to its entire pipeline system, or an operator may apply one method to individual portions of the pipeline system. An operator must describe in its integrity management program which method it is applying to each portion of the operator's pipeline system. The description must include the potential impact radius when utilized to establish a high consequence area. (See appendix E.I. for guidance on identifying high consequence areas.)*
- (b)(1) *Identified sites. An operator must identify an identified site, for purposes of this subpart, from information the operator has obtained from routine operation and maintenance*

activities and from public officials with safety or emergency response or planning responsibilities who indicate to the operator that/hey know of locations that meet the identified site criteria. These public officials could include officials on a local emergency planning commission or relevant Native American tribal officials.

(2) If a public official with safety or emergency response or planning responsibilities informs an operator that it does not have the information to identify an identified site, the operator must use one of the following sources, as appropriate, to identify these sites.

(i) Visible marking (e.g., a sign); or

(ii) The site is licensed or registered by a Federal, State, or local government agency; or

(iii) The site is on a list (including a list on an internet web site) or map maintained by or available from a Federal, State, or local government agency and available to the general public.

(c) *Newly identified areas.* When an operator has information that the area around a pipeline segment not previously identified as a high consequence area could satisfy any of the definitions in §192.903, the operator must complete the evaluation using method (1) or (2). If the segment is determined to meet the definition as a high consequence area, it must be incorporated into the operator's baseline assessment plan as a high consequence area within one year from the date the area is identified.

Finding(s):

CNG failed to follow IM procedure 4.1.4 in 2010 for Mt. Vernon District which requires a review of field survey, patrolling, surveillance, etc. records for the purposes of re-evaluating their HCA's. CNG did complete a re-evaluation in 2011 which revealed no corrections or changes to existing program were required. CNG has identified they have since corrected the process and will provide additional procedures training to all applicable district employees.

Cascade Response:

CNGC does not agree with Staff that there is a probable violation. CNGC performed and documented the HCA review in 2010 (see Exhibit F).

The following is in response to the six areas of concern or field observations noted by the inspector:

1. 49 CFR §192.16 Customer notification.

CNG was unable to provide evidence that notices have been sent to customers within 90 days for 2009 and 2010. CNG identified that customer notification occurred twice in 2011 and online for customer responsibility under paysite. CNG identified that this information will be retained and is available in their Premise Customer Information database system dated July 6, 2010. Corrective action regarding this AOC will be addressed under Docket 110443 Settlement Agreement item number Six.

Cascade Response:

As stated in the finding, this issue will be addressed under Docket 110443 Settlement Agreement item number Six.

2. WAC 480-93-170 Tests and reports for pipelines.

CNG failed to include the employee's name for the pressure test completed at 106 Talcott St., Sedro Woolley.

Cascade Response:

CNGC acknowledges that the employee's name was not indicated on the pressure test. However, CNGC was able to identify the employee who performed the test. Furthermore, CNGC believes that these types of situations will decrease as we implement the Quality Assurance Program as agreed to in the Settlement Agreement item number Two.

3. 49 CFR §192.615 Emergency Plans.

CNG failed to provide records showing they had made contact with all public officials for 2009, 2010 and 2011.

Cascade Response:

CNGC has documentation from 2009, 2010 and 2011 showing that contact was made with public officials. CNGC recognizes that the documentation is not ideal. CNGC believes that these types of situations will decrease as we implement the Quality Assurance Program as agreed to in the Settlement Agreement item number Two.

4. 49 CFR §192.616 Public Awareness.

CNG Emergency and Public Officials records are incomplete. Corrective action regarding this item will be addressed under Docket 110443 Settlement Agreement item numbers Three and Six. Staff will conduct an in depth inspection of CNG's Public Awareness program, including a review of CNG's program effectiveness, under a separate docket during 2012.

Cascade Response:

As stated in the finding, corrective action for this AOC will be addressed under Docket 110443 Settlement Agreement item numbers Three and Six.

5. WAC 480-93-140(2) Service regulators.

CNG failed to record (Form 305) odorant as perceptible during safety device testing at time of turn-on at 1605 E. Rio Vista Ave., Burlington. Corrective action regarding this item will be addressed under Docket 110443 Settlement Agreement item numbers Three and Six.

Cascade Response:

As stated in the finding, corrective action for this AOC will be addressed under Docket 110443 Settlement Agreement item numbers Three and Six.

6. WAC 480-93-188 Gas leak surveys.

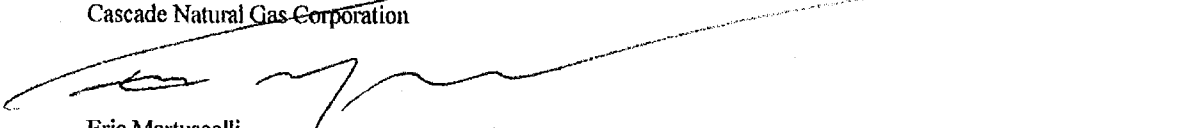
CNG had not yet completed a self-audit of their leak survey program at the time of this inspection. The last audit was completed in 2008. Corrective action regarding this item will be addressed under Docket 110443 Settlement Agreement item numbers One and Three.

Cascade Response:

CNGC does not agree with Staff that this was an Area of Concern at the time of this inspection as CNGC had not exceeded the three year requirement and this self-audit has since been completed.

Please contact Tina Beach at 206-445-4121 with questions or comments. Thank you.

Sincerely,
Cascade Natural Gas Corporation



Eric Martuscelli,
Vice President, Operations

C.N.G. STRENGTH TEST DATA REPORT

PROJECT NAME

WO# 178132

Pre-test
One hour

Date on- 10/22/10
Time on- 2:43 PM
Pressure on- 120 PSIG

Date off- 10/22/10
Time off- 3:43 PM
Pressure off- 120 PSIG

Medium Nitro

Ambient temp. 56°F

Recording
Instrument
Or gage

Reynolds chart Recorder

Calibration date- 12/18/09
SERIAL 9181PR

Verified

Vastrix Ele. Dead weight tester 0 - 2000 lb.

Installed By

C.N.G. Adrian Sed

Attested C.N.G. Bill Ranko

Full test

Date on- 10/22/10
Time on- 4:45 PM
Pressure on- 860 PSIG

Date off- 10/22/10
Time off- 7:28 AM
Pressure off- 858 onrise

Design 500

Test pressure 750

Duration 8 hours

Medium Nitro

Ambient temp. 50°F

Recording
Instrument
Or gage

Reynolds chart Recorder

Calibration date- 12/18/09
SERIAL 9181PR

Verified

Vastrix Ele. Dead weight tester 0 - 2000 lb.

Installed By

C.N.G. Adrian Sed

Attested C.N.G. B.U. Ranko

Comments

TESTED 36.3' @ 858 X 52.25' ... 4.8 50'
2 - 8' BOTTOM NET LIFE STRIPES 3 - 12' ...

Camant, Ted

cc: Knowles, Dustin
Monday, November 07, 2011 12:24 PM
Subject: McCamant, Ted; Beach, Tina; Kessie, Steve
Chartrey, Patti; Grunhurd, Dave; Grissom, Christopher
Anacortes 8" Similk Bay re-route coating survey
Attachments: Anacortes 8in Similk Bay Re-Route coating survey 11-02-11.pdf

Good afternoon,

Attached is the coating survey I performed on the Anacortes 8" Similk Bay re-route. There were no indications detected during the ACVG survey. Please let me know if I can be of any more assistance on this project.

Respectfully,

Dustin Knowles | Corrosion Technologist
Cascade Natural Gas Corporation | *A Subsidiary of MHI Resources Group, Inc.*
NACE Senior Corrosion Technologist | CP Technologist | Internal Corrosion Technologist
1520 S. Second Street | Mt. Vernon, WA 98273
360-941-5986 | Dustin.Knowles@cngc.com

ANACORTES 8" SIMILK BAY RE-ROUTE (WO#186092) COATING SURVEY

Performed 11/1/11-11/2/11 by Dustin Knowles, NACE Senior Corrosion/CP Technologist Cert#8555
5 ft survey intervals directly over re-route 8"

Distance (from start of re-route)	Pipe to Soil Potential (volts DC)	Fault Signal (dB micro volts)	Fault Direction	Comments
0	-1.050	38	Upstream	Upstream start of re-route
5	-1.051	38	Upstream	
10	-1.042	36	Upstream	90 deg turn
15	-1.031	33	Upstream	
20	-1.028	33	Upstream	
25	-1.027	31	Upstream	
30	-1.023	30	Upstream	
35	-1.024	28	Upstream	
40	-1.025	26	Upstream	
45	-1.024	28	Upstream	
50	-1.024	26	Upstream	
55	-1.026	25	Upstream	
60	-1.027	25	Upstream	
65	-1.031	26	Upstream	
70	-1.029	24	Upstream	
75	-1.022	24	Upstream	
80	-1.020	23	Upstream	
85	-1.022	24	Upstream	
90	-1.024	23	Upstream	
95	-1.025	23	Upstream	
100	-1.019	24	Upstream	
105	-1.023	22	Upstream	
110	-1.025	23	Upstream	
115	-1.028	22	Upstream	
120	-1.028	22	Upstream	90 deg turn
125	-1.027	22	Upstream	Isolation fitting
130	-1.055			Downstream end of re-route fittings exposed during ACVG

Survey notes: On 11/1/11, performed ACVG coating survey on Anacortes Similk Bay 8" re-route per NACE TM0109-2009. RD PCM+ Tx at isolation flange, 600mA, 20V. Test fault was verified at location 5 with greater than 50dB micro volts. Surveyed upstream starting at isolation fitting and ending at upstream tie-in. No indications detected. On 11/2/11, performed pipe-to-soil potential survey at 5 foot intervals.

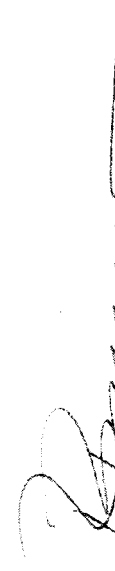
Exhibit E


Certificate of Participation

Presented to

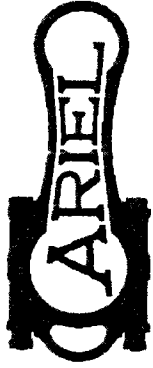
Roy DeLeon
Cascade Natural Gas

In recognition of having attended the
Gas Compression Instrumentation & Process School
As Presented by Enerflex Systems Ltd.
October 2-3, 2001 **Enerflex Training Centre**


Richard Bosomworth, Account Manager
Spartan Controls


Karen Hayward, Manager
Enerflex Training Centre

Certificate of Participation



This Certificate Has Been Awarded To

Roy DeLeon

For Completion of
Ariel Basic Service School

October 19, 2001

Dan Toth

Dan Toth
Training Manager

John P. Wright

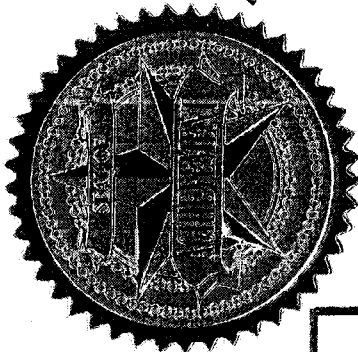
John P. Wright
President

Certificate of Training

Roy DeLeon

has successfully completed training for

**OPERATION AND MAINTENANCE
OF DIVIDER BLOCK LUBRICATION SYSTEMS**



ARIEL Training Facility
Mount Vernon, Ohio



CT Instructor: CURTIS ROYS
CT C. C. Technology Inc.

C. C. Technology Inc.

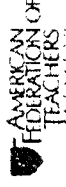
808 W. Missouri Midland, TX 79701 • 1-800-664-4033 • fax 915-741-8003

Certificate

AWARDED BY THE
INTERNATIONAL CHEMICAL WORKERS UNION COUNCIL
Center for Worker Health and Safety Education

In cooperation with

United Steelworkers of America - International Association of Machinists and Aerospace Workers
USWA Rubber/Plastics Industry Conference - USWA Aluminum, Brick and Glass Division
American Flint Glass Workers Union - Coalition of Black Trade Unionists
United Food and Commercial Workers Union - American Federation of Teachers
University of Cincinnati - Greater Cincinnati Occupational Health Center



Roy DeLeon

TO

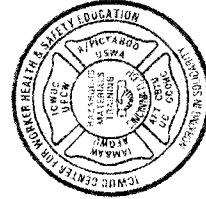
for having attended a five-day course for
Train-the-Trainer held March 10-14, 2003.

Larry V. Hugovic

Center Executive Director ICWU President

W. S. Stewart

ICWU Center Director



This training has been made possible in part by a grant from the National Institute for Environmental Health Sciences, a federal government agency to the International Chemical Workers Union a Council of the UFCW.

McCammant, Ted

From: McCammant, Ted
Sent: Friday, December 17, 2010 8:48 AM
To: Lindblom, Ryan
Subject: RE: HCA Reevaluation
Attachments: Mount Vernon 2010 HCA Re-evaluation.pdf

FYI.

From: Lindblom, Ryan
Sent: Thursday, December 16, 2010 10:53 AM
To: Kelln, Rick; Iverson, Russell; Sorensen, Sven; McCammant, Ted; Grant, Sam; Bossard, Chris; Harris, Dan; Wilson, Tom
Cc: Raschkow, Kevin; Kessie, Steve; Grunhurd, Dave; Marek, Chanda; Clapp, Mike; Martuscelli, Eric; Beach, Tina
Subject: HCA Reevaluation

All,

Our annual requirement to reassess any potential High Consequence Areas is upon us again. Attached is the spreadsheet with the transmission lines in each of your districts. Please select your district from the tabs at the bottom, print out, and complete the form. This evaluation should reflect any new construction near (within 400 feet of) a transmission line during 2010 so please review the quarterly patrol logs for the entire year. Even if you are sure that no new construction has taken place near our transmission lines in the past year please send a printed copy of the attached form with that noted on it. If you have any questions or concerns, please let me know. Also if you need any reprinted copies of the aerial photographs of the transmission lines for this survey to show locations of new construction please let me know as soon as possible.

Thank you,
Ryan Lindblom

REEVALUATION OF COMPANY HCAs

COMPLETION DATE:

12-17-10

GENERAL MANAGER SIGNATURE:



Check the box next to each transmission line below to indicate the field review for that line was completed:

<u>Name</u>	<u>Line #</u>	<u>Check:</u>
8" Anacortes	1	<input checked="" type="checkbox"/>
8" March Point	2	<input checked="" type="checkbox"/>
16" Fredonia	14	<input checked="" type="checkbox"/>
16" March Point	16	<input checked="" type="checkbox"/>

Number	Transmission Line	Describe Type of Building or Area Identified	Dist. From Trans. Line to Site
1		* No New Known activity *	
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			