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May 10, 2013

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

RECEIVED  
MAY 10 2013  
State of Washington  
UTC  
Pipeline Safety Program

Subject: Response to 2103 Natural Gas Standard Inspection – Longview District

Dear Mr. Lykken,

This letter is intended to address all probable state safety code violations and areas of concern. We specifically are addressing how and when we plan to bring the probable violations and areas of concern into full compliance. The inspection was conducted on March 25-28, 2013, in Longview, Washington.

The following is in response to two probable violations and four areas of concern:

**PROBABLE VIOLATIONS**

**1. 49 CFR §192.619 Maximum allowable operating pressure (MAOP) - Steel or plastic pipelines**

- (a) *No person may operate a segment of steel or plastic pipeline at a pressure that exceeds a maximum allowable operating pressure determined under paragraph (c) or (d) of this section, or the lowest of the following:*

- (1) *The design pressure of the weakest element in the segment, determined in accordance with subparts C and D of this part.*

**Finding(s):**

During the records review to confirm MAOP of HP lines, the 6" Kalama HP replacement project" constructed in 1995 was evaluated. As part of the record review, as-builts, invoices, bills of lading and other information from the job file were reviewed. The pipe used in this project was FBE coated, 6-inch steel. What strength pipe was actually put in the ground is unclear. CNG procures their own materials for construction. They order materials based on CNG part numbers identified in their CNG Parts Catalogue. For the Kalama project, one record, "Cost Analysis Sheet for Expenditure Requisition", identified the pipe as part No. PXW-650X42. According to the CNG Part Numbering system, this would be X42 (42000 psi yield strength) pipe. However on all "Material Transfer Records" and as-built records it's listed as PXW-650, without the X42 designation. This is significant as CNG has several pipe specifications listed in their part numbering system, each with different designations for pipe strength. For example, if listed as PXW-650, its class B pipe, with 35,000 for yield strength. If listed as PXW-650X42, then pipe strength is 42,000. The actual construction related documents-Material Transfer Records and as-builts do not have the X42 designation shown. CNG is searching their records for any additional information on this project, however, the records available during this inspection are inconsistent and do not allow confirmation of MAOP according to this subpart.

Whether the pipe is X42 or Class B, CNG's current MAOP would be satisfactory. However, CNG is not sure what pipe specification is in the ground in Kalama, and therefore, not sure of what the MAOP should be. Records (and their management), especially of MAOP confirming documents, must be complete, accurate and readily available. CNG must confirm the MAOP of the 6" Kalama HP line. If pipe material cannot be ascertained, then 49 CFR 192.105 requires using 24,000 as the pipe strength in the design pressure formula to calculate MAOP.

**Cascade Response**

Cascade Natural Gas Corporation (CNGC) recognizes that there was a discrepancy between "Cost Analysis Sheet for Expenditure Requisition" and the "As-Built" on the pipe grade used in the 6" Kalama HP Line; E.R. No. 1070-482-49627. The Cost Analysis Sheet is a preliminary project document that is created prior to ordering and installing pipe. CNGC has located the Purchase Order and the Material Test Reports for the pipe used in this project which identify it as Grade B pipe. This documentation agrees with the "As-built" documentation for this project. These

documents have been added to this project folder for future reference and MAOP has been recalculated using Grade B pipe information. The validated MAOP is at 300 psig and produces a SMYS of 15.10%. See Exhibit A-Original "As Built" and Purchase Order.

**2. WAC 480-93-188 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;*

**Finding(s):**

CNG CP 716 has the following definition: **High Occupancy Structure or Area (HOS/A)**- *A building or an outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by twenty or more persons on at least five days a week for ten weeks in any twelve-month period (The days and weeks need not be consecutive).*

Additionally, CNG CP 715 defines the following: **Public Building or Area (PB/A) -Washington**-*A building or an outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by twenty or more persons on at least five days a week for ten weeks in any twelve-month period. (The days and weeks need not be consecutive).* WAC, 480-93-005(14) also uses this same language to define "High occupancy structures or areas".

CNG CP 716.04 gives the survey type and schedule for these areas as: **Public Building Inspection (PBI)** *At least once each calendar year, but at intervals not exceeding 15 months*

During the records review, CNG attempted to locate annual leak survey records for several Public Buildings/Areas identified by WUTC prior to the inspection. These were the Woodland Intermediate School, Castle Rock Community Church and St. Mark's Episcopal Church (both in Castle Rock). CNG could not locate annual survey records for these areas. According to the leak survey, these areas were in fact surveyed on a 3 year basis, typical of non-business district surveys done in this district. This might be indicative of a larger CNG issue.

According to Tina Beach, when CNG changed from a paper based work order system to a new computer based system in 2010, some of the public building inspections (PBIs) which CNG checked annually did not make it into the new system. CNG attempted to go back and rectify this by hand, but according to Tina Beach and Tom Wilson, some were missed. Exactly how many is unknown, in this district or all of CNG's service area districts. As such, UTC will require CNG to evaluate, for each of their districts, how many of these structures/areas are in each district and compare this with what is actually being surveyed on an annual basis. A listing of these structures/areas, by district with addresses, will be sent to UTC after completion of this evaluation. Any structure/areas identified which are not on the current listing of such facilities in CNG's system will be immediately surveyed and added to the annual survey. These "new" facilities will be noted on the listing to be sent to WUTC as newly identified. Please identify when these tasks will be completed.

Note during the inspection there was some confusion regarding non-customers whose property fronts a street which has a buried gas main. UTC's position is there is no difference between non-customers and customers in the definition of HOS/PBs. CNG is to survey the right-of-way fronting these areas on an annual basis, regardless of whether they are a customer or not. If there is a service to the property, CNG is to survey the service to the building wall per 480-93-188 (1) (d)."

**Cascade Response**

CNGC concurs that the three High Occupancy Structure/Areas identified were not listed on the Longview district's HOS/A (PBI) list. Woodland Intermediate School, Castle Rock Community Church and St. Mark's Episcopal Church have been placed on our HOS/A list and will be surveyed annually. These locations were all surveyed during the normal outside business district leak survey rotations, which in Longview District occurs every three years exceeding State and Federal requirements of 5 calendar years at intervals not exceeding 63 months. Presently CNGC is comparing the 2010 PBI paper list's to present identified HOS/A's electronically for validation again in each CNGC's district which shall be completed by August 1, 2013. In addition, CNGC has contacted a third party consultant to research further verification and validation of CNGC's present HOS/A(PBI) list and identification of any non-conformities within the present process.

## AREAS OF CONCERN

### **1. WAC 480-93-170-Tests and Reports for Pipelines**

(7) *Each gas pipeline company must keep records of all pressure tests performed for the life of the pipeline and must document the following information:*

- (a) *Gas Pipeline Company's name;*
- (b) *Employee's name;*
- (c) *Test medium used;*
- (d) *Test pressure;*
- (e) *Test duration;*
- (f) *Line pipe size and length;*
- (g) *Dates and times, and*
- (h) *Test results.*

#### **Finding(s):**

CNG's 2012, 12" V90 Replacement Project included a pressure test of the installation after completion. After inspecting the data sheet from the pressure testing, it was noted that CNG failed to identify the test medium used on the record document per procedure CP 665.036. In response, CNG pointed out that CP 665 also states that valve installations may only use nitrogen for the test medium. CNG also produced an Airgas invoice for nitrogen supplied for the test dated 8/7/2012-which is the date of the first test.

The issue, however, is not whether nitrogen was used, as it appears that it was, but rather the record document for a critical component of the distribution system which confirms MAOP was incomplete. Given the series of recent catastrophic events relating to pipelines and the subsequent investigation noting that records management of these critical MAOP confirming documents was less than satisfactory, it is surprising to find these records for a very recent construction project to be compromised. The WUTC and PHMSA believe this to be a critical issue which must be emphasized at all levels of CNG's organization. Records (and their management), especially of MAOP confirming documents, must be complete, accurate and readily available. Please ensure that CNG places the appropriate level of scrutiny on this situation so that a future violation, incident or loss of life or property does not occur.

#### **Cascade Response**

CNGC does place a high level of scrutiny on our records and management of said records placing system safety at the very top of our priorities. CNGC concurs the test medium used was not indicated on the Division Test Data Report on 08-07-12 rather CNGC employee DW listed pressure range instead. On 08-10-12 CNGC employee DW did note Nitrogen as the test medium for this particular project. A review of projects completed by CNGC employee DW in 2012 indicates this was an isolated incident.

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

(4) *Each gas pipeline company must conduct special leak surveys under the following circumstances:*  
(c) *Unstable soil areas where active gas pipelines could be affected*

#### **Finding(s):**

During a pre-inspection site visit, it was noted that a section of Mt. Brynion Road near the intersection of Williams Finney Road appeared to have recent pavement work completed. It appeared that Mt. Brynion Road was moving downhill due to movement of the underlying land-i.e. a landslide. When CNG staff was asked about this situation, they did not know of any landslide issues in this area and said all landslide issues are handled by CNG's engineering department. The District Manager also added that they currently do a special leak survey on a portion of the high pressure 12-inch line that feeds Longview Fibre whenever they get a "heavy rain". This location was located on UTC's mapping system which has historic landslides plotted. The location corresponds to a historic landslide area near the pipeline. CNG staff indicated that landslide training is not part of the OQ program and that landslide occurrences are handled on a case by case basis by CNG's engineering department.

UTC is concerned that in areas, such as Longview, where known and potentially still active, historic landslide areas could affect CNG's pipelines, that a program is not in place to alert CNG's personnel of potential dangers. UTC believes CNG should train their staff to be cognizant of potential landslide indicators to identify and potentially prevent future catastrophic incidents from occurring. Procedures should be developed to identify and manage this threat.

#### **Cascade Response**

CNGC's training program does include instructions for personnel to be cognizant of potential landslide indicators. These instructions are included in the 1600DOT Line Patrolling, Leak Survey and Pipeline Marker training module. CNGC personnel are required to complete 1600DOT prior to performing quarterly patrols, leak surveys or pipeline marker surveys. CNGC employee DS advised WUTC staff, "We complete special leak surveys on landslide areas after heavy rains or areas where we see land movement." CNGC employees have

identified areas of land movement on various leak surveys and other CNGC forms. In addition, CNGC offered to show WUTC staff special leak surveys which validate employees have been properly trained.

**3. 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 evaluations that individuals performing covered tasks are qualified;*
- (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;*

**Finding(s):**

During the field OQ evaluation, an employee was asked to take rectifier reads at GB02 Kalama. The employee responded that he was not "comfortable" performing this covered task as he does not perform it routinely— one other employee routinely performs this task. According to CNG OQ records, this employee is qualified to perform this task. If he employee is properly qualified per CNG's OQ qualification program, they should not be "uncomfortable" in performing covered tasks. CNG needs 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 needs to determine what additional training or other appropriate methodology needs to be employed to ensure its employees are qualified and competent to perform OQ covered tasks.

**Cascade Response**

CNGC requires that all employees assigned to specific OQ tasks notify their supervisor if they are assigned work they are not comfortable performing. The supervisor will then elect to reassign the task, disqualify the employee, and choose to retrain and/or re-qualify. During the audit, the CNGC employee performed as required by acknowledging that he does not routinely take rectifier reads at GB02.

**4. 49 CFR §192.616 Public Awareness**

- (e) The program must include activities to advise affected municipalities, school districts, businesses, and residents of pipeline facility locations.*
- (f) The program and the media used must be as comprehensive as necessary to reach all areas in which the operator transports gas.*

**Finding(s):**

In their Public Awareness plan, CNG identified, "Affected public-non customers" as a stakeholder audience but did not send them targeted information as required. As noted in the 2012 PA Plan effectiveness review, they failed to use targeted brochures, pamphlets etc. to inform this group. Instead, they used TV, radio etc. CNG needs to ensure the PA plan (CNG plans on updating its plan by April, 2012) reaches its intended audience by targeting its identified stakeholders with specific information for that group.

**Cascade Response**

This issue was identified in the Public Awareness Program inspection conducted in May 2012 in the Kennewick General Office and will be addressed in the Public Awareness Program inspection to be conducted in June 2013.

Please contact Steven Kessie at 509-734-4575 with questions or comments.

Respectfully Submitted,



Eric Martuscelli,  
Vice President, Operations  
Cascade Natural Gas Corporation

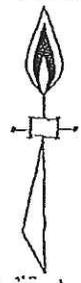
# DISTRIBUTION LINE REPORT

Item No.	Quantity		Stock No.	Description	DESCRIPTION	
	Proposed	"As Built"			E.R. No.	City
1.			PWX-350	2" X-TRU COAT PIPE	1070-482-45627	KALAMA
2.			<del>EL-360</del>	<del>2" 90° WELD ELL</del>	WASH	Grid No. 1-A 1-B
3.			NP-213	1" Save-A-Valve nipple		
4.			SP-352	2" Weld line stopper fitting		
5.			SP-354	2" Extension stopper fitting		
6.			<del>SP-356</del>	<del>line stopper fitting (L.P.)</del>		
7.			TE-351	2"x2"x2" Weld Tee		
8.			H-7	2" Cold Applied Tape		
9.			<del>H-8</del>	<del>4" Cold Applied Tape</del>		
10.			<del>H-12</del>	<del>Primer</del>		
11.			H-47	2" Thermofill Sleeve		
12.			None	2" End plate		
13.			<del>PE-350</del>	<del>2" Driscopipe</del>		
14.			PCA-350	2" Driscopipe cap		
15.			H-115	Copper tracer wire		
61.	3537		PWX-650	6" X-TRU COAT 118ft wt		
131.	1		CA-651	6" WELD CAP		
16.	6		EL-360	2" 90° WELD ELL		
18.	1		EL-555	4" 90° WELD ELL		
19.	4		EL-656	6" 45° WELD ELL		
20.	4		EL-657	6" 90° WELD ELL		
25.	1		RE-652	6" X 4" WELD REDUCER		
36.	1		TE-651	6" X 6" X 6" WELD TEE		
57.	1		SP-553	4" LINE STOPPER H-11256		
60.	3		NP-210	1" SAVE-A-VALVE H-11491		
41.	52		H-8	4" COLD apply TAPE		
43.	3		H-12	PRIMER		
49.	19		H-25	6" X 10" CASE INS.		
53.	4		H-42	2" VENT CAP		
54.	4		H-43	9" X 12" PIPELINE SIGN		
55.	8		H-44	1/4" BOLTS		
67.	3		H-105	CARSOITE MARKER		
68.	4		H-119	CANUSATUBE SLEEVE		
69.	40		H-300	LINK SEALS		
71.	63		PD-350	2" BARE PIPE		
76.			EL-360	2" WELD ELL 90°		
70.			H-NONE	BIG FINK TEST STATION		
75.	2		H-3	2" POLYKEN TAPE		

E.R. No. 1070-482-45627 City KALAMA  
 State WASH Grid No. 1-A 1-B  
 Ft. Blacktop \_\_\_\_\_ Ft. Concrete \_\_\_\_\_  
 Ft. Gravel, Rock \_\_\_\_\_ Ft. Sod, Dirt 736  
 Initiated by ENGINEERING Date 8-31-95  
 Prepared by GENERAL OFFICE Date 8-31-95  
 Approved by *Tom [Signature]* Date 8-31-95  
 Constructed by MID-MAN Date 10-18-95  
 Test pressure \_\_\_\_\_ by \_\_\_\_\_  
 "As-Built" by PAUL GARDNER Date 2-15-96  
 Checked by *Tom [Signature]* Date 3-4-96  
 Const. problems *1-6" WELD CAP - SCRAP*  
 Pipe P.O. No. 09510503 3-23-95

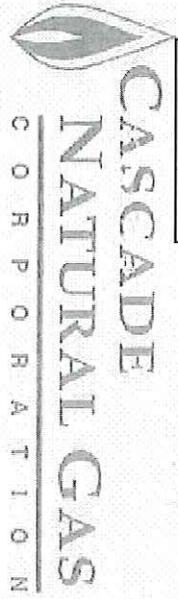
**FOR GENERAL OFFICE USE ONLY**  
 Tax Code No. 30 Date 5-1-96 by *BN*  
 Posted Grid  Operating:  Orig.  Print

PIPE CONDITION  GOOD  FAIR  POOR



1st E' A' 1. p CILLI  
 SHEET

EXHIBIT A



C O R P O R A T I O N

P.O. BOX 24464  
SEATTLE, WASHINGTON 98124-0464  
PHONE: 206/624-3900  
FAX: 206/654-4024

PURCHASING

PURCHASE ORDER

SHOW THIS PURCHASE ORDER NO  
ON ALL INVOICES, PACKAGES  
AND SHIPPING PAPERS

NUMBER

PAGE

05/18/99

TERMS  
30 DAY NET 30 DAYS  
SHIP VIA TRUCK  
DEPT NO  
FOB  
COLTON, CA

ORDER DATE: 05/18/99  
ORDER TYPE: AMENDMENT  
ACCT NO  
1541 GENERAL STORES  
REF

VENDOR NO: 7113400

SHIP TO:

BILL TO:

TAXABLE

TO: FUGET SOUND PIPE AND SUPPLY  
2220 3RD AVE SE  
SEATTLE WA 98134-1595

CASCADDE NATURAL GAS CORP  
701 51 FIRST AVE  
YACHTA WA 98902-4602

CASCADDE NATURAL GAS CORP  
P O BOX 24464  
SEATTLE WA 98124-0464

CONFIRMING  
ORDER

NOTE: ATTN: HOWARD PERSSON

USER #

USER #

LINE	ITEM NUMBER	DESCRIPTION	UOM	QUANTITY	DUE DATE	PRICE PER UOM	TOTAL
001	PIPE 4" X 20'	4" X 20' TRU PIPE, GR. B. 1/2" WT. SCHED. 40	EA	1	05/21/99	3.0530	3.0530
002	PIPE 6" X 20'	6" X 20' TRU PIPE, GR. B. 1/2" WT. SCHED. 40	EA	1	05/21/99	5.2100	5.2100
PIPE TO BE COATED BY SUPPLIER. 2,000 FT OF 4" IN STOCK AT CSI AND AVAILABLE FOR IMMEDIATE SHIPMENT TO SCENIC. REMAINING 8,000 FT. OF 4" AND ALL OF 6" TO ROLL MID APRIL BY TEX TUBE.							
SPECIAL INSTRUCTIONS:		METALLURGICAL PAPERS ARE REQUIRED.		REQUISITIONER		PR NO	
		BUYERS NAME		TOWN CRT		NONE	
		AUTHORIZATION		FOR HEADLINE			
		X					
THIS ORDER SUBJECT TO TERMS AND CONDITIONS ON REVERSE				PAGE TOTAL		28554.00	
				ADJUSTMENT			
				TAX		2374.94	
				PURCHASE ORDER TOTAL \$		29127.94	