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CERTIFIED MAIL

February 18, 2016

Eric Martuscelli
Vice President, Operations
Cascade Natural Gas Corporation
8113 West Grandridge Blvd
Kennewick, WA 99336

Dear Mr. Martuscelli:

RE: **Cascade Natural Gas Corporation (CNGC) MAOP Determination and Validation Plan (Plan), Docket PG-150120 (Insp. No. 2655)**

We have received your Plan dated January 29, 2016. Staff from Pipeline Safety have reviewed the Plan which resulted in additional questions and information requests which we've addressed in the attached Data Request (DR).

We are concerned with CNGC's responsiveness to this issue. The lack of supporting documentation for validating maximum allowable operating pressure (MAOP) on your high pressure pipelines, was brought to your attention as a result of inspections completed in late 2013. You will recall, this issue began with a notice of probable violation following our 2013 inspection and culminated in an agreed settlement approved by Commission Order. Further, CNGC failed to respond timely as required by that Order. As the attached DR illustrates, we still have many questions which will lead to revisions to the Plan. We believe having joint meeting to discuss the Plan and our concerns is warranted.

We request CNGC attend a meeting at our office on March 4, 2016, to discuss the Plan and the information requested in the DR. Please provide us with your response to the DR in advance of the meeting via e-mail to Dcrawfor@utc.wa.gov by March 1, 2016. We would hope to have yourself, Steve Kessie and Jeremy Ogden in attendance (as well as any others CNGC would like to attend).

Thank you in advance for you attending. Please be sure to have a written response to the DR at the meeting.

If you have any questions, please contact Dennis Ritter at (360) 664-1159 or dritter@utc.wa.gov.
Sincerely,

Alan E. Rathbun
Pipeline Safety Director

cc: Steve Kessie, Director, Operations Services, CNGC
Jeremy Ogden, Director, Engineering Services, CNGC
Mike Eutsey, Manager, Standards and Compliance, CNGC

Enclosure (2): Data Request
PHMSA Guidance Material and Interpretations

DATA REQUEST:

1. Page 2 of 7, Summary of HP Systems, Table 1. CNGC notes that for the items highlighted in yellow on this table (wall thickness, yield strength) that the "most stringent criteria" has been assumed. Why are there differing wall thicknesses (0.188", 0.156", 0.154") if CNGC has assumed the most stringent? Wouldn't the most stringent be the thinnest wall, or 0.154"?

2. Page 2 of 7, Summary of HP Systems, Table 1. There are cells left blank under "Test Pressure." Does this mean CNGC does not have a documented pressure test for these lines?

3. Page 2 of 7, Summary of HP Systems, Table 2. There are several lines on this table that do not have highlighted cells for "wall thickness" and "yield strength." Does this mean CNGC does have documentation for those segments? Also, some of these lines have pressures well below 20% SMYS and yet they are included on this table for transmission. Please explain.

4. Page 3 of 7, Summary of HP Systems. CNGC states for the 8" Bellingham HP Line #1, 8" and 12" Bremerton Line #2 and the 8" Anacortes HP Line #1, that "testing up to this point indicates that this pipeline has a yield strength of 46000 (42000 for Anacortes) psi." What testing was done on these pipelines to validate this statement?

5. Page 3 of 7, Summary of HP Systems, 8" March Point HP Line #2. How and why did this line become CNGC's "highest priority?"

6. Table 1. CNGC has identified several high pressure (HP) lines without pressure tests and which are pre-code (constructed prior to November 11, 1970). Subpart L of 49 CFR 192 is titled "Operations." 192.603 (a) states, "No person may operate a segment of pipeline unless it's operated in accordance with this subpart." So it's clear that the operations section is applicable regardless of when a pipeline was put into operation (pre-code or post). Therefore, the requirements 192.619 and 192.621 apply to all pipelines. 192.619 gives the maximum allowable operating pressure (MAOP) requirements for pipelines subject to Part 192 and 192.619(c) gives an allowance for operators of pre-code pipelines to use a documented operating pressure in lieu of a pressure test as an acceptable MAOP. Additionally, PHMSA **Interpretation PI-ZZ-012 Date: 05-30-1974 (below),** determined that a pressure test is required to establish MAOP under 192.619(a) unless 192.619(c) applies. Therefore, either a pressure test or 192.619(c) documentation are necessary. Do any of CNGC's pre-code pipelines have the 192.619(c) documentation? How did CNGC determine MAOP for those lines without a pressure test?

7. Table 1. CNGC has identified lines which are post code and which do not have a pressure test record (purple cells). Per 49 CFR 192.503, all new (post code) pipelines must be tested per subpart J and 192.619. There is no allowance for operating a segment of pipeline without a pressure test. Please confirm CNGC does not have a pressure test for these lines. How did CNGC determine MAOP for these lines?

8. Page 3 of 7, Determination of MAOP. Table 3. See No. 6 above. If CNGC does not have documented operating pressures between the years July 1, 1965 and July 1, 1970, then it would appear per PHMSA **Interpretation PI-ZZ-012 Date: 05-30-1974 (below)**, that a pressure test is required to establish MAOP under 192.619(a) unless 192.619(c) applies. See No. 6 above. How did CNGC establish MAOP on these lines?

9. Page 3 of 7, Determination of MAOP, Table 4. See No. 8 above.

10. Page 3 of 7, Determination of MAOP, Table 4, 6" West Wheeler HP line. This line has a "Year Installed" date of 1997. Per 49 CFR 192.503, all new (post code) pipelines must be tested per subpart J and 192.619. There is no allowance for operating a new segment of pipeline without a pressure test. Please confirm CNGC does not have a pressure test for this line. How did CNGC establish the current MAOP for this line?

11. Page 4 of 7, Determination of MAOP, Table 5. This table represents pipeline segments which have an established MAOP which is not confirmed by the pressure test. In fact, it appears the pressure test is inadequate for the current MAOP. How did CNGC establish the MAOP on these lines?

12. Page 4 of 7, Determination of MAOP, Table 6. See No.'s 6, 7 and 8 above.

13. Page 4 of 7, Determination of MAOP, Table 7. This table has pipelines with documented test pressures. However, 192.619(a) requires the lowest of the values calculated shall be used to establish MAOP. Two lines, Bellingham HP Distribution (MAOP 155) System and the 4" Olympic View HP line (MAOP 499) appear to have MAOPs established higher than 192.619 (a)(2)(ii) would allow. Using the derating factors in the table yields an MAOP of 150 psi for the Bellingham HP Distribution and 333 psi for the 4" Olympic View HP line. Please confirm the existing MAOP on these lines and how did CNGC establish the MAOP. Additionally, please note the conditions outlined in No. 6, 7 and 8 above regarding MAOP determination.

PHMSA Guidance Material and Interpretations:

a. **Interpretation: PI-ZZ-053 Date: 05-31-2001**

Following is our response to a question that a local distribution company (LDC) wants to up rate a steel pipeline in a Class 3 location to a pressure that will produce a hoop stress of less than 30 percent of specified minimum (SMYS). In 1957, the pipe was pressure tested to 465 psig and the LDC established a maximum allowable operating pressure (MAOP) of 190 psig based on the highest operating pressure during the five-years prior to July 1, 1970. The LDC proposes to raise the pressure from 190 psig to 250 psig in four increments of 15 psig.

The assertion was made that the up rating procedure described above does not meet the minimum requirement of 49 CFR §192.553(d), which states that

"...a new maximum allowable operating pressure established under this subpart may not exceed the maximum that would be allowed under this part for a new segment of pipeline constructed of the same materials in the same location."

We agree that the word "part" as used in §192.553(d) refers to 49 CFR Part 192, rather than just to Subpart K. Therefore, **any uprating is limited by the provisions of §192.619.**

The uprating regulations in Subpart K do not require that a new pressure test be conducted at the time of uprating. And, §192.555(c), which covers uprating to a pressure that will produce a hoop stress 30 percent or more of SMYS, explicitly allows the use of a previous pressure test as the basis for MAOP, even if the pipeline was not operated to the MAOP during the five years prior to July 1, 1970. Although the use of a previous pressure test is not mentioned in §192.557, which covers up rating to a pressure that will produce a hoop stress less than 30 percent of SMYS, it makes no sense to rely on a previous pressure test for high-stress pipe and to disallow it for low-stress pipe. And, in any case, §192.553(d) clearly states that the new MAOP may not exceed the maximum that we would allow for new pipe of the same material at the same location. **Therefore, reliance on a previous pressure test is allowable for uprating to a higher MAOP, providing that the pressure test, de-rated for class location as specified in §192.619, allows for a maximum allowable operating pressure equal to or greater than the proposed uprated pressure.**

In response to your specific questions:

Do you agree with our interpretation that the LDC must up rate to a pressure using the table and factors found in 49 CFR §192.619(a)(2)(ii)?
Answer: No. The LDC may follow the uprating procedure in 49 CFR Part 192, Subpart K. The uprated pressure will be limited to the maximum pressure that can be supported by a current or previous pressure test, as de-rated for class location using the factors found in 49 CFR §192.619(a)(2)(ii).

b. **Interpretation: PI-85-002 Date: 03-20-1985**

A system was designed for 40 psi but was operated at a maximum of 10 psi for 5 years prior to 07-01-1970. Per OPS, the system MAOP is 10 psi.

c. **Interpretation: PI-ZZ-017 Date: 06-19-1975**
Subject to the requirements of Sections 192.621 or 192.623, as the case may be, **the maximum allowable operating pressure for a pipeline may not be increased above the lowest pressure determined under Section 192.619(a)**. For a steel pipeline operated at 100 psig or more, in uprating under Section 192.557 to a pressure permitted by Section 192.619(a)(2)(ii), a pressure test must be performed under that section. Steel pipelines operated at less than 100 psig may be uprated under Section 192.557 to a pressure permitted by Section 192.619(a) without conducting a pressure test.

d. **Interpretation: PI-ZZ-012 Date: 05-30-1974**
To comply with Part 192, an operator who acquires an existing plastic pipeline other than one relocated or replaced after November 12, 1970, need not know what pressure test was made after installation of the line. However, since the line's MAOP cannot be determined under §192.619(a)(2)(i) without this information, **the operator must establish an MAOP by testing the line, unless the exception of §192.619(c) applies**.
An operator who acquires a new steel pipeline or one relocated or replaced after November 12, 1970, must obtain or establish the test record required by §192.517, if applicable to the line acquired. Irrespective of this recordkeeping requirement, in the case of a new steel pipeline or a relocated or replaced one, to comply with Subpart J an operator must know what pressure test was made after installation or conduct a proper test. In the case of an existing steel pipeline operated at 100 psig or more, other than one relocated or replaced, to establish an MAOP under §192.619(a)(2)(ii), an operator must know what test was made after installation **or conduct a proper test**, unless the exception in §192.619(c) applies. Where such an existing line is operated at less than 100 psig, an MAOP may be established under §192.619(a) in the absence of a post installation test.

e. **Interpretation: PI-73-008 Date: 02-13-1973**
The requirements of §192.195 and §192.197 are contained in Subpart D of Part 192 which prescribes minimum requirements for the design and installation of pipeline components and facilities. **Sections 192.619 and 192.621, on the other hand, are operational requirements contained in Subpart L. Section 192.603(a) makes clear that no person may operate a segment of pipeline unless it is operated in accordance with the requirements of Subpart L.** Subpart L sets forth the continuing requirements necessary to insure safe operation of a pipeline independent of the initial design, installation and construction requirements that were applicable to that pipeline. **Sections 192.619(b) and 192.621(b) prescribe requirements for the operation of pipeline facilities regardless of when these pipelines were installed. Therefore, compliance is required with both of these sections in the operation of the gas facilities.**

f. **Interpretation: PI-ZZ-001 Date: 12-03-1970**
Section 192.619 establishes a maximum allowable operating pressure for all steel and plastic pipelines. **The requirements of Section 192.621 are additional requirements which apply to high-pressure distribution systems**, defined in Section 192.3 as those systems in which the gas pressure in the is higher than the pressure provided to the customer.