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January 12, 2018

Sean Mayo - Pipeline Safety Director
 State of Washington Utilities and Transportation Commission
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 Pipeline Safety Program

Subject: Additional Segments Operating over 30% SMYS

Dear Mr. Mayo,

This letter is in response to the additional pipeline segments identified in the Maximum Allowable Operating Pressure (MAOP) Determination & Validation Plan submitted December 29, 2017 as operating over 30% Specified Minimum Yield Strength (SMYS) with a low frequency electric resistance welded (ERW) or an unknown seam type. The segments that are currently operating over 30% SMYS are associated with the following pipelines:

- 8" and 12" Kitsap HP and Transmission Lines
- 16" March Point Transmission Line
- 16" North Whatcom Transmission Line
- East Stanwood Odorizer Station (017-O-003)

Each of these systems were modeled to determine if a 20% pressure reduction could be performed. From the modeling, it was determined a 20% pressure reduction would put Cascade in a position of not being able to meet the design day requirements on each of these systems. The specific additional pipeline segments currently over 30% SMYS are listed in the table below:

District	Work Order #	Segment Name	Existing MAOP (psig)	Max Pipe % SMYS	Max Fitting % SMYS	Install Date (Year)	Pipe Length (Feet)
Aberdeen	50202	009-V-043, 044, 047, 048, 049, 050	499	53.02%	53.02%	1996	62.93
Aberdeen	50202-T	009-V-045, 046, 051, 053	499	47.69%	47.69%	1996	192.98
Aberdeen	44000-T	8" Kitsap Line (Shomocker Creek)	499	47.69%	16.03%	1995	15.16
Bellingham	18736	005-V-145, 005-O-002	600	53.75%	53.33%	1971	38.75
Bremerton	50203	8" Kitsap Line (008-V-156)	499	47.69%	NA	1996	0.00
Mount Vernon	60209	Fredonia Compressor Station	500	59.56%	66.67%	2001	483.12
Mount Vernon	45730	16" March Point Transmission Line	500	45.71%	NA	1993	3.01
Mount Vernon	16049	017-O-003	960	21.84%	32.45%	1970	120.66

8" and 12" Kitsap HP and Transmission System (50202, 50202-T, 44000-T, 50203)

Modeling showed system pressure could possibly be reduced by 10%, if temperatures remain above the design temperature for Bremerton. With the possibility of cold weather, a pressure reduction would put Cascade in a position of not being able to meet design day requirements on the system during this time of year. Segments currently operating over 30% SMYS are post-code and were all installed in 1996 or later. Cascade material specifications post-1991 would indicate pipe used would have been API 5L with a minimum yield strength of 35,000 psig and ERW or seamless seam type. Fittings would have a minimum yield strength of 35,000 psig and standard wall thickness.

16" March Point Transmission System (60209, 45730)

Modeling showed system pressure could possibly be reduced by 6% if the pressure on the 8" Anacortes and 8" March Point Lines, which are currently under a 20% pressure reduction, were increased back to 360 psig. Any further pressure reductions on this system would put Cascade in a position of not being able to meet the design day requirements on the system. Segments currently operating over 30% SMYS are post-code and were all installed in 1993 or later. Cascade material specifications post-1991 would indicate pipe used would have been API 5L with a minimum yield strength of 35,000 psig and ERW or seamless seam type. Fittings would have a minimum yield strength of 35,000 psig and standard wall thickness.

16" North Whatcom Transmission System (18736)

Modeling showed system pressure could only be reduced by 4%. This pipeline is currently operating at 535 psig (with a MAOP of 600 psig) based on 49 CFR 192.917 (3) requirements for considering manufacturing and construction defects to be stable. In addition, the 8" Central Whatcom Line is currently operating under a 20% pressure reduction and further pressure reductions would put Cascade in a position of not being able to meet the design day requirements on the system. The segment is currently operating over 30% SMYS, and is post-code installation with a post-installation pressure test of 900 psig.

East Stanwood Odorizer Station (16049)

This pipeline segment is at the odorizer station east of Stanwood which is where Cascade currently odorizes the gas directly from William's Pipeline (William's) at the take-off of William's pipeline to Stanwood. This site currently has no way to directly regulate pressure to perform a pressure reduction without requiring William's to lower the pressure on their system. Pipe fittings are the only piece of this pipeline segment that are currently over 30% SMYS. Fittings are standard wall, Grade B, and the seam type is unknown.

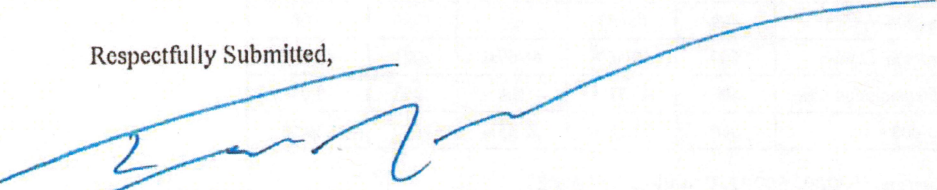
To address the pipeline segments identified over 30% SMYS, CNGC is currently coordinating with our consultants and contractors to begin in-situ testing as soon as possible. In-situ testing will allow CNGC to determine yield strength and wall thickness to accurately calculate and determine if the segment shall remain over 30% SMYS. CNGC anticipates having in-situ testing completed by the end of February barring any unforeseen challenges with permitting, construction, etc. Priority for addressing these segments will be primarily based on access to the segment (above ground or below ground) and location of the segment.

The segment at the East Stanwood Odorizer is currently scheduled for replacement in 2018, with anticipated construction occurring in summer. Replacement of this segment will also need to be coordinated with William's.

Each segment will be leak surveyed quarterly until the segment is validated per MAOP Determination & Validation Plan or segments percent SMYS is less than 20%.

If you have any questions, please do not hesitate to contact me directly.

Respectfully Submitted,



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