PG-16050

PUGET SOUND ENERGY

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Pipeline Safety Program

June 11, 2012

David Lykken, Director Pipeline Safety
Washington Utilities and Transportation Commission
PO Box 47250
Olympia, WA 98504-7250

RE: Temporary Pressure Authorization for the Salishan Supply and the Pierce Transit Supply

Dear Mr. Lykken:

Pursuant to WAC 480-93-020, Puget Sound Energy (PSE) requests approval to temporarily operate the Salishan Supply and the Pierce Transit Supply at a pressure in excess of 250 psig but not to exceed 268 psig for a total of 48 hours within a 30 day period.

The Salishan HP Uprate Project is scheduled to be completed in August 2012. The purpose of the uprate project is to increase the Maximum Allowable Operating Pressure (MAOP) in the Salishan system from the current 150 psig to 250 psig. The increase in pressure will improve the capacity of the south Tacoma area, including the Pierce Transit system. Timing of this project is in part necessitated by a Washington Department of Transportation freeway project involving the I-5 bridge widening at Portland Street in Tacoma, which will require the rerouting of a portion of the Salishan system. The rerouting project will result in the Salishan system connecting directly to the North Tacoma Supply upstream of the existing North Tacoma Limit Station (LS-2661).

To ensure that the entirety of the Salishan system will be subjected to a pressure no less than 250 psig during the fourth and final incremental pressure increase and subsequent leak survey, the pressure of the Salishan Supply may need to be raised up to 268 psig. Pressures into the system during the final increment will be controlled using CNG injection. Best efforts, including time of day and possible curtailment of loads, will be taken to minimize the elevated pressure required to achieve a successful uprate. At no time will the pressure exceed 268 psig. PSE Gas Control will monitor system pressures continuously throughout the process and maintain direct communication with on-site Pressure Control personnel.

In addition to the Salishan Supply, piping in the Pierce Transit Supply may also experience elevated pressures during the final pressure increment.

Following completion of the uprate process, a leak survey will be conducted on all piping in the two systems impacted by this procedure.

All other connected supply systems will be isolated or regulated by either closing or throttling a valve as reflected in Appendix A.

The Salishan Supply consists of 6.1 miles of 8" HP main. The MAOP of the supply is currently limited to 150 psig which is the highest operating pressure between 1965 and 1970. The supply has been previously tested to a pressure that would qualify the system for 300 psig operation when each main segment was originally installed. The supply will be uprated from 150 psig to 250 psig in accordance with the written uprate plan.

The Pierce Transit Supply consists of approximately 3.5 miles of 6" HP main. Piping in the system was pressure tested in November 1999 to a pressure that would qualify the system for 268 psig operation. However, the MAOP of this system is limited by several components that are rated for 250 psig.

The two HP systems that are included in this request have a Design Factor less than 0.2 which exceeds the 0.4 factor for Class 4 locations per CFR 49 192.111.

Sincerely,

Cheryl A. McGrath

Cheryl McGrath,
Puget Sound Energy
Manager Gas Compliance and Regulatory Audits

Enclosures:

cc: Jennifer Tada
Duane Henderson

APPENDIX B - GENERAL INFORMATION

MAOP:
The MAOP of the two supplies that require a Temporary Pressure Authorization are shown in the table below:

Supply Name	Test Pressure Divided the Test Pressure Factor	Supply MAOP	MAOP Basis
Salishan Supply	300 psig	250 psig (after uprate)	Component Rating
Pierce Transit Supply	268 psig	250 psig	Component Rating

Pipe Specifications:
The pipe specifications for the two supplies that require a Temporary Pressure Authorization with the corresponding percentage of specified minimum yield strength at 250 psig and 268 psig are shown in the table below.

Material Specifications	% SMYS at 250 psig	% SMYS & 268 psig
Salishan Supply		
12" x 0.250" Gr.B	18.22%	19.53 %
8" x 0.322" X-42	7.98%	8.55 %
8" x 0.322" Gr.B	9.57%	10.26 %
8" x 0.188" X-42	13.66%	14.64 %
8" x 0.188" Gr.B	16.39%	17.57 %
4" x 0.237" Gr.B	6.79%	7.27 %
Pierce Transit Supply		
8" x 0.188" X-42	13.66%	14.64 %
6" x 0.280" Gr.B	8.46%	9.06 %
6" x 0.188" X-42	10.49%	11.25 %
6"x 0.188" Gr.B	12.59%	13.50%
2" x 0.154" Gr.B	5.51%	5.91 %
2" x 0.125" Gr.A-25	9.50%	10.19 %

Construction Details:
All construction conforms to Class 4 Standards. Pipe segments that were installed prior to CFR 192 establishment met the requirements of ASME/ASA B31.8 at the time of construction.

Cathodic Protection:
The Salishan Supply and the Pierce Transit Supply comply with the following Corrosion Control Standards:

2600.1000 Cathodic Protection Requirements
2600.1100 Field Coatings for Pipe and Fittings
2600.1200 Test Station Requirements
2600.1300 Designing and installing Cathodic Protection Systems
2600.1400 Electrical Isolation and Grounding Requirements
2600.1500 Monitoring Cathodic Protection
2600.1700 Monitoring and Remedial Measures for Internal Corrosion
2600.1900 Remedial Measures for Corrosion Control
2600.2000 Galvanic Installation Requirements

Coating:
The Salishan Supply and the Pierce Transit Supply were constructed in accordance with PSE/WNG Operating Standards. In accordance with applicable standards, an external field-applied coating shall be applied to the pipeline, any field joints, and fittings not supplied with protective coatings.

Testing:
All main segments for the Salishan Supply were strength tested to a pressure when divided by the appropriate test pressure factor (1.4 or 1.5) equals or exceeds 300 psig. Segments for the Pierce Transit were strength tested to 403 psig which divided by 1.5 equals to 268 psig.

Welding:
All welding and welding inspection for the Salishan Supply and the Pierce Transit Supply conformed with PSE/WNG Operating Standards.

Pressure Monitoring:
The Salishan Supply and the Pierce Transit Supply are monitored by remote telemetry units (RTUs). The RTUs poll system pressures every 3 seconds. The pressures will be monitored 24 hours a day in PSE's 24-Hour Operations Center.

Leakage Surveys:
Leakage survey has been conducted in accordance with PSE Gas Operating Standard 2625.1100, Leakage Survey Program. The Operating Standard requires leak surveys to be conducted annually (once every calendar year not to exceed 15 months) for supply mains operating at or above 250 psig and once every three calendar years not to exceed 39 months for supply mains operating above 60 psig but less than 250 psig.

In addition, each supply which will experience a pressure above 250 psig but below 268 psig as part of the Salishan Uprate will be surveyed before the uprate procedure begins and after the uprate procedure is complete.

A leakage survey was completed on the Salishan Supply and the Pierce Transit Supply on March 23rd, 2012. All identified leaks will be classified, monitored, and repaired as necessary in accordance with Gas Operating Standards 2625.1300, Leakage Action Program and 2575.2500, Uprating and Downrating Pipelines.

ATTACHMENT A – SYSTEM OVERVIEW / UPRATE SCHEMATIC