

**BEFORE THE WASHINGTON STATE  
UTILITIES AND TRANSPORTATION COMMISSION**

In the Matter of the Petition of	)	DOCKET PG-141535
	)	
PUGET SOUND ENERGY,	)	ORDER 01
	)	
Petitioner,	)	
	)	ORDER GRANTING PETITION
Seeking Authorization to Operate a	)	
Facility with a Maximum Operating	)	
Pressure Greater than 250 psig, up to and	)	
including 500 psig, Pursuant to WAC	)	
480-93-020	)	
.....	)	

**BACKGROUND**

- 1 On July 30, 2014, Puget Sound Energy (PSE or Company), filed with the Washington Utilities and Transportation Commission (Commission) a petition requesting approval to operate a pipeline and associated facilities at greater than 250 psig (pounds per square inch gauge), up to and including 500 psig, pursuant to Washington Administrative Code (WAC) 480-93-020. PSE requested approval to increase the Maximum Operating Pressure (MOP) of the existing South Tacoma Supply #2 pipeline to 490 psig.
- 2 A gas pipeline company must have permission from the Commission to operate a pipeline at greater than 250 psig, up to and including 500 psig, within one hundred feet of certain buildings or areas described in WAC 480-93-020.
- 3 The Company proposes to increase the operating pressure of the existing South Tacoma Supply #2 (12-inch distribution main) from 250 psig to 490 psig. The South Tacoma Supply #2 is approximately 5.2 miles of 12-inch pipe constructed in 1995 and designed and tested for a MOP of 500 psig. The pipeline extends from the Clover Creek Limit Station (128<sup>th</sup> Street E. and Waller Road) west along 128<sup>th</sup> Street E., northwest along Aqueduct Dr., and west along 112<sup>th</sup> Street S. to the intersection of 112<sup>th</sup> Street S. and Interstate 5.
- 4 The Commission has adopted the Code of Federal Regulations, Title 49, Part 192 and WAC 480-93 as minimum standards for natural gas pipeline construction. Pipeline pressure for the South Tacoma Supply #2 cannot be increased from the current 250 psig until several upgrades are made to existing facilities and new facilities planned as part of

this project are designed and installed. All of the new facilities that are part of this project will be designed, constructed, installed, and tested pursuant to the requirements set forth in 49 CFR 192 for an MOP of 500 psig.

- 5 The project will increase system capacity in the Tacoma/Pierce County supply system in order to better serve the needs of the JBLM customer base because increasing the maximum operating pressure to 490 psig will increase gas supply without requiring the installation of miles of new high pressure pipeline. Although the 12-inch South Tacoma Supply #2 route is classified as a Class 3 location, all construction was performed in accordance with Class 4 construction standards.
- 6 Commission Staff reviewed the Company's request and made the following findings:
  - 1) PSE requested a maximum operating pressure of 490 psig for the South Tacoma Supply #2 to prevent the hoop stress for any portion of the pipeline from exceeding 20 percent of the Specified Minimum Yield Strength (SMYS) of the pipeline material. Most of the pipeline was constructed with 12-inch API 5L X-52 pipe. A small portion of the pipeline was constructed with 12-inch API 5L X-42 pipe, and this portion would exceed 20 percent SMYS if the MOP was 500 psig. This is less than half of the hoop stress allowed in highly populated areas.
  - 2) The 12-inch pipe has had two minor leaks, both from fittings attached to the pipe; one was a leaking save-a-valve, the other was a leaking flange gasket. The line history does not show indicators of poor performing pipe such as corrosion, leaking welds, or manufacturing defects. Company records demonstrate that PSE has maintained adequate Cathodic protection levels for the life of the pipeline.
  - 3) The pipeline is located in a suburban area of single family houses and apartments (a Class 3 location). The pressure increase is necessary for the Company to meet peak demand supply into the South Tacoma area.
- 7 Commission Staff recommends the Commission grant the petition subject to the following conditions:
  - (a) PSE will design and construct a new 12-inch pipeline segment to tie over the existing Frederickson Supply Main to the South Tacoma Supply #2 at the Clover

Creek Limit Station (RS-2733) to the transmission standards set forth in 49 CFR 192, including the use of full radius bends and full open valves to provide for the use of in-line inspection equipment.

- (c) PSE will retire RS-2619. (Currently in the design phase).
- (d) PSE will design, construct, and test a new I-5 Limit Station near the intersection of 112<sup>th</sup> Street S. and I-5 to an MOP of 500 psig, per 49 CFR 192. (Currently in the design phase).
- (e) PSE will replace a 12-inch by 8-inch Tee fitting just north of RS-2619 with a pretested section of 12-inch pipe.
- (f) All circumferential welds (100 percent) on the new segments will be nondestructively tested (NDT) by radiograph. All other welds (100 percent) on the new sections and in Regulator/Limit Stations will be nondestructively tested in accordance with 49 CFR 192.243, and shall meet the standards set forth in Section 9 of API Standard 1104.<sup>1</sup>
- (g) PSE will leak-survey the pipeline prior to the system pressure increase, and repair any leaks found prior to raising the pressure in incremental steps.
- (h) Any leaks found during leak surveys conducted between incremental pressure increases will be repaired prior to proceeding to the next incremental pressure increase.
- (i) An additional leak survey will be conducted one week after the pressure increase.
- (j) PSE will conduct a coating survey using electronic holiday detection equipment for the new segments of 12-inch pipeline.
- (k) PSE will survey the right-of-way along the pipeline and replace any required pipeline markers.
- (l) PSE will have all required procedures onsite during construction.

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<sup>1</sup> Incorporated by reference in 49 CFR 192.7.

- (m) PSE will notify Commission pipeline safety staff 48 hours before commencing construction and 48 hours before increasing system pressure.

**FINDINGS AND CONCLUSIONS**

- 8 (1) The Washington Utilities and Transportation Commission is an agency of the State of Washington vested by statute with the authority to adopt and enforce rules for gas pipeline safety.
- 9 (2) PSE is a gas pipeline company and subject to Commission jurisdiction.
- 10 (3) In WAC 480-93, the Commission has adopted minimum standards for gas pipeline construction. Pursuant to these standards, gas pipelines are designed to withstand higher pressure than the MOP prescribed by these rules. The most restrictive gas pipeline safety rules specify that pipelines in a highly populated area must be operated at pressures producing a hoop stress of no greater than 40 percent of the SMYS of the pipe.
- 11 (4) PSE is proposing to increase the operating pressure on the existing South Tacoma Supply #2 (12-inch distribution main) from 250 psig to 490 psig. PSE agrees to observe the requirements contained in paragraph 7 of this order. These conditions exceed minimum regulatory requirements.
- 12 (5) This matter came before the Commission at its regularly scheduled meeting on July 30, 2015.
- 13 (6) After reviewing PSE's petition and giving due consideration to all relevant matters and for good cause shown, the Commission finds it is consistent with the public interest to conditionally grant PSE's request to operate at greater than 250 psig, up to and including 500 psig, subject to the conditions listed in paragraph 7 of this Order.

**ORDER**

**THE COMMISSION ORDERS:**

- 14 (1) Puget Sound Energy's petition for authorization to operate a pipeline at greater than 250 psig, up to an including 500 psig, is granted.

- 15      (2)      This authorization is conditioned on Puget Sound Energy meeting the conditions of paragraph 7 of this order. These conditions exceed the minimum regulatory requirements.
- 16      (3)      The Commission retains jurisdiction over the subject matter and Puget Sound Energy to effectuate the provisions of this Order.

DATED at Olympia, Washington, and effective July 30, 2015.

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DAVID W. DANNER, Chairman

PHILIP B. JONES, Commissioner

ANN E. RENDAHL, Commissioner