

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

In the Matter of the Petition of)	DOCKET PG-150022
)	
PUGET SOUND ENERGY,)	ORDER 01
)	
Petitioner,)	
)	
Seeking Authorization to Operate a)	ORDER GRANTING PETITION
Facility with a Maximum Allowable)	
Operating Pressure Greater Than 250)	
PSIG Pursuant to WAC 480-93-020)	
.....)	

BACKGROUND

- 1 On January 2, 2015, Puget Sound Energy (PSE or Company), filed with the Washington Utilities and Transportation Commission (Commission) a petition requesting Commission approval to operate a pipeline at greater than 250 pounds per square inch gauge (psig) .

- 2 A gas pipeline company must have permission from the Commission to operate a pipeline at greater than 250 psig within one hundred feet of certain buildings described in WAC 480-93-020.

- 3 PSE proposes to operate Phase 1 of the new 16-inch Tolt pipeline at a pressure of 500 psig with a maximum specified minimum yield strength (SMYS) of 19.05 percent. This system will provide additional natural gas supply to North King County to ensure system reliability. There are three phases to this project. The remaining phases will be filed with the Commission at a later date and will complement this portion of the project. This pipeline will be installed in the portion of Woodinville known as the “Tolt Pipeline Corridor,” and is named the “Tolt 16-inch pipeline.”

- 4 The scope of this request includes all pipeline facilities associated with and constructed between the two existing 8” pipelines operated by PSE. Phase 1 will begin by tying in to an existing 8” pipeline at the intersection of the Tolt Pipeline corridor and 155th Avenue N.E., and will follow the corridor approximately 2.8 miles east until Mink Road N.E., where it will tie in with another existing 8” pipeline.

- 5 PSE's system modeling shows that future demand in the area will require reinforcements to this HP system. Installation of a new gate station and 16" HP line from the intersection of 132th Avenue N.E. and 143rd Place N.E. to approximately 800' North of 216th Avenue N.E. will alleviate the demand on station #2499 and strengthen the natural gas system in North King County.

- 6 The Commission has adopted the Code of Federal Regulations, Title 49, Part 192 and Washington Administrative Code 480-93 as minimum standards for gas pipeline construction. The route for the Tolt 16-inch pipeline is located in an area classified as a Class 3 Location. This would limit the pipeline's hoop stress to no more than 50 percent of the SMYS of the pipe. The most restrictive gas pipeline safety rules specify that pipelines in a highly populated area (Class 4 Location) be operated at pressures producing a hoop stress of no greater than 40 percent of SMYS. The proposed pipeline will operate at no greater than 19.05 percent of the SMYS.

- 7 For additional safety measures, PSE proposes to design and construct the Tolt 16-inch pipeline to meet or exceed the requirements for Class 4 Standards. In addition, PSE proposes to hydro-test the new pipeline at a minimum of one and one-half times the Maximum Allowable Operating Pressure, or at least 750 psig for at least twenty-four hours. The elevation changes approximately 270 feet over the route of the supply main. Therefore, the test pressure at the lowest elevation will be at least 870 psig to ensure 750 psig is obtained at the highest point on the pipeline.

- 8 Commission Staff reviewed the request and recommended the Commission grant the petition subject to the following condition(s):
 - (a) PSE will submit a map of the pipe location and final construction specifications to the Commission within 30 days of project completion.

 - (b) The Tolt 16-inch pipeline will be constructed and operated to maintain a pipe hoop stress below 20 percent of SMYS of the pipe at the maximum allowable operating pressure (MAOP) of 500 psig.

 - (c) PSE will construct the pipeline to accommodate in-line inspection tools such as "Smart Pigs."

- (d) PSE will test the pipeline to a minimum of 750 psig in all locations along the pipeline route. The test pressure is at least 1.5 times the MAOP of 500 psig. The test will be for 24 hours without pressure loss unless the loss can be justified by a corresponding change in temperature. If PSE identifies any leaks, PSE will stop the pressure test, repair the leak and then start the pressure test anew.
- (e) The pipe coating will be electrically inspected and coating defects repaired prior to backfilling. Coating defects shall be repaired in accordance with PSE's Operating Standard.
- (f) PSE will bury the pipeline with a minimum of 48-inches of cover. Where 48-inches of cover cannot be maintained, a minimum of 36-inches of cover will be maintained.
- (g) PSE will apply backfill material around the pipe to protect the pipe and coating. The material around the pipe will be free of any sharp rocks with a maximum particle size of one half inch and containing a large percentage of fines, such as, sand, native soil, or soil-based select materials. Rock shield is allowed where the use of sand is impractical or prohibited. The backfill material shall be free of sharp objects and large clods that could damage the pipe and coating.
- (h) PSE will perform radiograph inspections of 100 percent of all welds unless impractical. Upon request by the Commission, PSE will provide written documentation where radiographs are impractical including the written radiographer's statement. Defects will be remedied in accordance with PSE's operating standards and procedures. PSE will radiograph all repaired welds to ensure pipeline integrity and compliance with existing standards.
- (i) PSE will install and maintain mainline valves spaced at intervals not to exceed 1 mile if practical, but at no time shall the interval be more than 2 miles.
- (j) PSE will conduct leak surveys on the Tolt 16-inch pipeline in accordance with PSE standards, the pipeline will be leak surveyed once every three calendar years not to exceed 39 months while it operates below 250 psig, and will be leak surveyed annually when it operates at 500 psig. PSE will conduct leak surveys near high occupancy structures or areas – no less frequently than annually, not to

exceed fifteen months between surveys, unless additional surveys are required by Commission rules.

- (k) PSE will install cathodic protection within 90 days after the pipeline is installed.

FINDINGS AND CONCLUSIONS

- 9 (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.
- 10 (2) PSE is a gas pipeline company subject to Commission jurisdiction.
- 11 (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 MAOP 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.
- 12 (4) PSE is proposing to construct the Tolt 16-inch pipeline at the intersection of the Tolt Pipeline corridor and 155th Avenue N.E., and will follow the corridor approximately 2.8 miles east until Mink Road N.E. PSE's system modeling shows that future demand in the area will require reinforcements to this HP system. A review of PSE's proposed construction plans indicate that it meets or exceeds all of the pertinent requirements of the Code of Federal Regulation, Title 49, Part 192 and 480-93 of the Washington Administrative Code. Installation of a new gate station and 16" HP line from the intersection of 132th Avenue N.E. and 143rd Place N.E. to approximately 800' North of 216th Avenue N.E. will alleviate the demand on station #2499 and strengthen the natural gas system in North King County.
- 13 (5) This matter came before the Commission at its regularly scheduled meeting on May 28, 2015.
- 14 (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.

ORDER

THE COMMISSION ORDERS:

- 15 (1) Effective date of this Order, Puget Sound Energy's petition for authorization to operate a pipeline at greater than 250 pounds per square inch gauge is granted.
- 16 (2) This authorization is conditioned on Puget Sound Energy agreeing to the conditions in paragraph 8 of this Order. These conditions exceed the minimum regulatory requirements.
- 17 (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 May 28, 2015.

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DAVID W. DANNER, Chairman

PHILIP B. JONES, Commissioner

ANN RENDAHL, Commissioner