BEFORE THE WASHINGTON STATE
UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Petition of	)	DOCKET PG-070590
	)	
PUGET SOUND ENERGY, INC.,	)	ORDER 01
	)	
Petitioner,	)	
	)	
Seeking Authorization to Operate a Facility with a Maximum Allowable Operating Pressure Greater Than 250 pounds per square inch gauge. Pursuant to WAC 480-93-020	)	ORDER GRANTING REQUEST TO OPERATE A PIPELINE AT PRESSURES EXCEEDING 250 POUNDS PER SQUARE INCH GAUGE
. . . . .	)	

BACKGROUND

1 On March 13, 2007, Puget Sound Energy, Inc. (PSE) filed with the Washington Utilities and Transportation Commission (Commission) a petition requesting approval to operate a pipeline above 250 pounds per square inch gauge (psig) in accordance with WAC 480-93-020.

2 WAC 480-93-020 requires gas companies to petition the Commission for approval prior to operating a pipeline above 250 psig.

3 WAC 480-93-020 prohibits operating a facility within one hundred feet of: a building intended for human occupancy which is in existence or under construction prior to the date the company seeks authorization for construction with the Commission, a high occupancy structure or area, as defined in WAC 480-93-005(12), that is in existence or under construction prior to the date the company seeks authorization for construction; or a public highway, as defined in RCW 81.80.010(3).

4 PSE proposes to construct a gas main approximately 9,000 linear feet, of 16-inch diameter along 196th Ave NE, NE 85th Street, 208th Ave NE, and Union Hill Rd. located in Redmond, WA. The proposed main is phase three of a four phase project to replace the existing 20,000 linear feet of 8-inch diameter for the Redmond Supply. The purpose of the new main is to provide additional capacity to serve the cities of Bellevue, Kirkland, and Redmond. PSE has identified eighteen residential structures located within 100 feet of the proposed route. PSE distributed notices to each of the identified property owners, communicated project details and alerting them to the scheduled open meeting. Pipeline safety staff canvassed the area to ensure that residences were properly notified. Natural gas will be supplied to the proposed main from the existing Williams Gas Pipeline

Northwest facility at the Redmond Gate Station located at 227 NE and Union Hill Road, Redmond. The Commission considered the petition at its regular open meeting of June 27, 2007.

5 The Commission has adopted the Code of Federal Regulation, Title 49, Part 192 and WAC 480-93 as minimum standards for natural gas pipeline construction. The most restrictive natural 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 50% of the specified minimum yield strength (SMYS) of the pipe. PSE will operate the proposed pipeline at 300 psig or a hoop stress of 11.4% SMYS. The pipeline will be constructed for a maximum allowable operating pressure (MAOP) of 500 psig or a hoop stress of less than 20% of SMYS. The proposed route is classified as a Class 3 location that would typically limit the hoop stress to no more than 60% SMYS. The pipeline will be hydro-tested at a minimum of one and one-half times the MAOP or 750 psig.

6 Commission Staff finds PSE's proposed additional safety and design measures for the construction and operation of the Redmond Supply Main located in a Class 3 location will provide added safety to the public. Staff recommends authorization be granted for the proposed pipeline subject to the specified conditions:

(a) **Filings and Notices:**

1. Notify the Commission 48 hours prior to the commencement of construction.

2. Submit a map of the pipe location and the final construction specifications to the Commission within 30 days of the project completion.

(b) **Design and Construction:**

1. The 16-inch diameter pipe will be constructed of American Petroleum Institute (API) 5L Grade X-56 steel pipe with a nominal wall thickness of 0.375 inch.

2. The pipeline will be built to maintain the pipe stress level for natural gas below 20% of the Specified Minimum Yield Strength at the Maximum Allowable Operating Pressure of 500 psig.

3. The pipeline segment will be constructed to accommodate in-line inspection tools such as "Smart Pigs." Pipe bend radius will be a minimum of three diameters to facilitate a wide range of inspection tools.

4. Mainline valves will be installed at the ends of the pipeline segment.

5. The pipeline will be radiographically examined at 100% of all girth welds or at a minimum 90% for the pipeline and above ground piping except welds that cannot be radiographed. PSE will provide upon request, written documentation where radiographs are impractical including the certified radiographer's statement. All welds will be inspected and defects will be replaced or repaired in accordance with PSE standards. All repaired welds will be radiographed to ensure pipeline integrity and compliance with existing standards.

6. The entire coating will be electrically tested or "jeeped" for flaws to ensure coating integrity. Any flaws will be repaired.

7. The backfill materials around the pipe to protect the pipe and coating will be in accordance with PSE Gas Operating Standard 2525.1800. The material around the pipe will be free of sharp rocks with a maximum particle size of one half inch and containing a large percentage of fines. Rock shield is allowed where the use of sand is impractical or prohibited. The backfill material shall be free from sharp objects and large clods that could damage the pipe and coating.

8. The pipeline will be buried with at least four feet of cover. Cover of no less than three feet is allowed where four feet is impractical.

9. The pipeline will be hydro-tested to a minimum of 1.5 times the maximum allowable operating pressure. The test duration will be held for 24 hours without pressure loss unless the pressure loss can be justified by corresponding change in pipe temperature. Any leak identified will be repaired and the pressure test shall be restarted.

10. Cathodic protection will be installed within 90 days after the pipeline is installed.

11. PSE will have cathodic protection test locations at intervals sufficient to determine the adequate protection of the pipeline during surveys.

(c) **Operations and Maintenance:**

1. The operating pressure of the Redmond Supply Main will not exceed 300 psig without Commission approval.

2. PSE will provide a 24-hour Supervisory Control and Data Acquisition system to monitor the system operating pressures.

3. Leak surveys will be conducted in accordance with PSE Operating Standard 2625.1100. The survey is to be conducted annually, not to exceed 15 months, unless additional surveys are required by Commission rules.

FINDINGS AND CONCLUSIONS

7 (1) The Washington Utilities and Transportation Commission is an agency of the state of Washington vested by statute with the authority to regulate public service companies, including every person or corporation transporting natural gas by pipeline, or having for one or more of its principal purposes the construction, maintenance or operation of pipelines for transporting natural gas. *RCW 80.28.210.*

8 (2) PSE is a public service company subject to the jurisdiction of the Commission under the provisions of RCW 80.28.210 and Chapter 480-93 WAC.

9 (3) PSE is a company having one of its principle purposes the construction, maintenance, and operation of pipelines used for transporting natural gas in this state. They are proposing to build 9,000 feet of 16-inch main in Redmond. They currently operate 20,000 feet of 8-inch natural gas main from the Redmond Gate Station at 227 NE Avenue and Union Hill Road to the Redmond Limit Station at Avondale Way and Union Hill Road. Additional capacity is needed to serve the cities of Bellevue, Kirkland, and Redmond. The proposed route will run parallel to the existing 8-inch main at Union Hill Road. PSE has agreed to exceed the minimum regulatory requirements by increasing the design strength of the pipe, provide additional inspections, install remote monitoring equipment, and install pipe bends to accommodate in-line inspection tools. It is consistent with the

public interest that the Commission grant PSE's request for authorization to operate the proposed 16-inch pipeline at pressures not exceeding 300 psig, conditioned upon PSE meeting the commitments it has made regarding structural strength, inspecting, and monitoring of the pipeline.

10 (4) After examination of the petition and giving consideration to all relevant matters and for good cause shown, the Commission finds it is consistent with the public interest to grant PSE's request to operate above 250 psig, subject to conditions in Paragraph 6 of this order.

11 (5) This matter was brought before the Commission at its regularly scheduled meeting on June 27, 2007.

O R D E R

THE COMMISSION ORDERS:

12 (1) After the effective date of this Order, the petition of Puget Sound Energy, Inc., for authorization to operate a pipeline above 250 psig is granted, in accordance with WAC 480-93-020.

13 (2) This authorization is conditioned on the provisions stated in Paragraph 5 of this order.

14 (3) The Commission retains jurisdiction over the subject matter and Puget Sound Energy, Inc., to effectuate the provisions of this Order.

The Commissioners, having determined this Order to be consistent with the public interest, directed the Secretary to enter this Order.

DATED at Olympia, Washington, and effective June 27, 2007.

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

CAROLE J. WASHBURN, Executive Secretary