

Agenda Date: September 15, 2011  
Item Number: A1

**Docket:** PG-111454  
Company Name: Puget Sound Energy

Staff: Dave Cullom, Pipeline Safety Engineer

### **Recommendation**

Issue an order granting PSE's request to operate a pipeline at pressures up to 350 pounds per square inch gauge (psig) subject to the conditions recommended by staff.

### **Background**

Puget Sound Energy (PSE) is proposing to reconstruct and operate the inlet side of the Little Rock Gate Station approximately 2 miles south of Tumwater on Little Rock Road (RS-0991) at a pressure in excess of 250 psig. The only piping that will be operated at a maximum allowed operating pressure (MAOP) of 350 psig will be the odorizer piping and approximately 6 feet of 2 inch pipe and fittings between the PSE regulator body and the gas suppliers line of demarcation. The purpose of this request is to facilitate an increase in operating pressure and an increase in the peak flow volume this facility can support. This will continue to ensure the reliability of the as distribution system south of Olympia.

The increased operating pressure is needed on this system to allow for the installation of a new service to the Granite Construction Asphalt plant and to maintain service for existing customers during peak loading.

### **Discussion**

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 described in [WAC 480-93-020](#). There is a residence approximately 80 feet from the proposed pipeline replacement section.

PSE's proposed pipeline route is rated as Class 3 Location in terms of population density and the pipeline must be designed to a hoop stress no greater than 50 percent of the SMYS of the pipe. The proposed line will exceed that requirement. The pipeline will be constructed for a MAOP of 350 psig or a hoop stress of 7.72 percent of SMYS. The pipeline will be pressure tested at a minimum of one and one-half times the MAOP or 525 psig. The normal operating pressure will be at 275 psig and that corresponds to a hoop stress of 6.06 percent SMYS.

After reviewing PSE proposed route and engineering of the facility in question, staff believes the commission should approve the company's request subject to the following conditions:

(a) **Filings and Notices**

1. PSE will notify the Commission two business days prior to the commencement of construction.
2. Residents near or in proximity of the Gate Station will be contacted and informed of the future pipeline construction and any additional information found in the public awareness requirements of CFR 192.616.

(b) **Design and Construction**

1. The 2-inch diameter pipe will be constructed of American Petroleum Institute (API) 5L Grade B with a nominal wall thickness of 0.154 inch.
2. The pipeline will be built to maintain the pipe stress level for natural gas at or below 7.72 percent of the SMYS at the MAOP of 350 psig.
3. The pipeline will be constructed and tested strictly in accordance with PSE's Gas Operating Standards.

(c) **Operations and Maintenance**

1. PSE shall not operate the pipeline in excess of 350 psig, without additional Commission approval.
2. PSE will provide a 24-hour Supervisory Control and Data Acquisition system to monitor the system operating pressures.
3. PSE will conduct leak surveys on the pipeline in accordance with PSE Operating Standard 2625.1100. The survey is to be conducted no less frequently than annually, not to exceed 15 months, unless additional surveys are required by Commission rules.

**Recommendation**

Staff recommends the Commission issue an Order granting PSE's request to operate above 250 psig and subject to the conditions listed above.