

Agenda Date: July 28, 2011
Item Number: A1

Docket: PG-110814
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 500 pounds per square inch gauge (psig) subject to the conditions recommended by staff.

Background

Puget Sound Energy (PSE) is proposing to install the Redmond Supply Main as phase five of a five phase PSE project designed to replace 20,000 linear feet of existing PSE 8-inch diameter pipe. PSE will supply natural gas to the new main from the existing Williams Gas Pipeline Northwest facility at the Redmond Gate Station located at 227 NE and Union Hill Road, Redmond. The purpose of the Redmond Supply Main is to provide additional capacity to serve the cities of Bellevue, Kirkland, and Redmond. This will also shift demand away from the existing Issaquah lateral to supply the growing demand further south.

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](#). The Commission has adopted the Code of Federal Regulation, Title 49, Part 192 and 480-93 of the Washington Administrative Code 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 40 percent of the specified minimum yield strength (SMYS) of the pipe. PSE's proposed pipeline route (Class 3 Location) is limited to a hoop stress no greater than 50 percent of the SMYS of the pipe. The pipeline will be constructed for a MAOP of 500 psig or a hoop stress of 19.05 percent of SMYS. The pipeline will be pressure tested at a minimum of one and one-half times the MAOP or 750 psig or a hoop stress of 28.6 percent of SMYS. The normal operating pressure will be at 300 psig and that corresponds to a hoop stress of 11.43 percent SMYS.

Recommendation

After examination of the request and giving consideration to all relevant matters, staff recommends the Commission issue an Order granting PSE's request to operate above 250 psig and subject to the conditions in the Order.