

Agenda Date: December 30, 2010
Item Number: E2

Docket: PG-100845
Company Name: Avista Utilities

Staff: Al Jones, Pipeline Safety Engineer

Recommendation

Issue an order granting Avista'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

Avista Utilities (Avista) provides natural gas service to Clarkston, in Asotin County, from an existing high pressure pipeline that crosses the Snake River from Lewiston, Idaho, near Highland Ave and 3rd Street in Clarkston located at Regulator Station #417. Currently, a 4-inch high pressure pipeline from this Regulator Station extends south, approximately 2.8 miles; terminating at the Critchfield Road Regulator Station #440. The 4-inch pipeline has reached its capacity to adequately supply the gas needs of Clarkston on a design heating degree day.

In 2009, Avista hired a geotechnical engineering consultant to study using horizontal directional drilling (HDD) to cross the Snake River to the west of the confluence of the Snake and Clearwater Rivers. The consultant's research revealed a low likelihood of success if such a HDD crossing was attempted. Avista's proposed route represents the most feasible alternative for the pipeline's location.

On May 14, 2010, Avista requested approval to construct a 6-inch high pressure from Regulator Station #417; extend the pipeline south; parallel to the existing 4-inch pipeline on Riverside Drive (SR 129) and the Snake River.

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 proposed pipeline will pass through the U. S. Army Corps of Engineers' Swallows Park and within 100 feet of the existing: Greenbelt Walkway, a U. S. Forest Service building, two outdoor playground areas, and a fishing pier designed for access by people with handicaps that limit their mobility. The approximate 2.8 miles segment will be designed and tested for a maximum allowable operating pressure (MAOP) of 500 psig,

will be radiographically examined at 100 percent of all girth welds, and tested to a minimum of one and one-half times the MAOP.

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. Avista's proposed pipeline route (Class 3 Location) for a well-defined outside public area that 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 16.9 percent of SMYS, less than 50 percent SMYS for Class 3 Location. The pipeline will be pressured tested at a minimum of one and one-half times the MAOP or 750 psig or a hoop stress of 25.4 percent of SMYS.

Recommendation

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