

Agenda Date: July 28, 2011  
Item Number: A5

**Docket:** PG-111196  
Company Name: Cascade Natural Gas Corporation

Staff: Dave Cullom, Pipeline Safety Engineer

### **Recommendation**

Issue an order granting Cascade'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**

Cascade Natural Gas Corporation (Cascade) is proposing to install 600 feet of pipeline as part of a rerouting project. This project will begin on the east side of BNSF's railroad tracks approximately 200 feet north of the intersection of Sapp Road and the railroad tracks and will end 200 feet north of the Sapp Road/BNSF crossing on the west side of the railroad tracks. The pipeline replacement will cross BNSF's railroad tracks under an existing bridge trestle crossing over Sapp Rd. The purpose of the Fredonia Transmission Line Casing replacement is to relocate this pipeline section and construct it without a casing so future direct assessment of the pipeline, as required by statute, can occur.

### **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. Cascade'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.

### **Recommendation**

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