

Agenda Date: March 28, 2013  
Item Number: A1

**Docket:** PG-120452  
Company Name: Cascade Natural Gas Corporation

Staff: Scott Rukke, Pipeline Safety Engineer

### **Recommendation**

Issue an order granting Cascade Natural Gas Corporation's request to operate a regulator station above 500 pounds per square inch gauge (psig) and a pipeline segment above 250 psig and up to 500 psig subject to the conditions recommended by staff.

### **Discussion**

Cascade Natural Gas Corporation (CNG) is proposing to install and operate a new regulator facility at greater than 500 psig and a pipeline facility at greater than 250 psig and up to 500 psig. The operation of these two facilities will include an uprate of 12,800' of existing 6-inch pipeline currently operating at a maximum allowable operating pressure of 250 psig.

A gas pipeline company must have authorization from the commission to operate a pipeline at greater than 500 psig within five hundred feet of certain buildings and a pipeline at greater than 250 psig and up to 500 psig within one hundred feet of certain buildings as described in WAC 480-93-020.

The company has contacted residents along the pipeline right-of-way and informed them of the uprate and additional information required by federal public awareness rules CFR Title 49, Part 192.616.

Staff reviewed the proposed uprate and believes the following reasons justify approving CNG's request:

- (a) The maximum hoop stress of the uprated 6-inch pipeline will be 16.8 percent. Gas pipeline safety rules specify that pipelines in low population areas (Class 1 Location) be operated at pressures producing a hoop stress of no greater than 72 percent of the specified minimum yield strength (SMYS) of the pipe. The low SMYS provides an additional level of safety.
- (b) The 6-inch pipeline, which the company installed in 1989, has never experienced any leaks.
- (c) Company records demonstrate that the company has maintained good cathodic protection levels for the life of the pipeline.

- (d) The pipeline is located in a rural area of mostly farms and pasture. (Class 1 Location).
- (e) The uprate is necessary for the company to meet peak demand supply into the Mount Vernon area.
- (f) Other avenues of increasing supply would require the installation of high pressure pipelines in more populous areas.

Staff recommends that the commission approve CNG's request subject to certain conditions that will increase the safety of the uprated facility. The company is aware of these conditions and agrees to meet each as described below:

- (a) Cascade Natural Gas Corporation will re-locate the existing odorizer located on Beaver Lake Rd, upstream approximately 500 feet to the same location as the new regulator station at the Williams tap.
- (b) Cascade Natural Gas Corporation will construct the new segment of 6-inch pipeline to transmission standards including the use of full radius bends and full open valves to provide for future use of in-line inspection equipment.
- (c) All circumferential welds (100 percent) on the new segment of 6-inch pipeline will be nondestructively tested by radiograph. All other welds (100 percent) on the new segment will be nondestructively tested according to Title 49, CFR, Part 192.243 and shall meet the standards set forth in Section 9 of API Standard 1104. (Incorporated by reference, see §192.7).
- (d) Cascade Natural Gas Corporation will leak survey the pipeline prior to the uprate and repair any leaks found prior to raising the pressure in incremental steps.
- (e) Any leaks found during leak surveys conducted between incremental pressure increases will be repaired prior to proceeding to the next incremental pressure increase.
- (f) Cascade Natural Gas Corporation will conduct a coating survey using electronic holiday detection equipment for the new segment of 6-inch pipeline.

- (g) Cascade Natural Gas Corporation will survey the right-of-way along the pipeline and replace any required pipeline markers.
- (h) Cascade Natural Gas Corporation will have all required procedures on site during construction and uprating.
- (i) Cascade Natural Gas Corporation will notify Commission pipeline safety staff 48 hours before commencing construction and 48 hours before commencing the actual uprate.
- (j) Cascade Natural Gas Corporation will follow the uprate procedure detailed in the Cascade Natural Gas Corporation Mount Vernon Uprate Procedure filed October 5, 2012, with the Commission. If there are any changes to the procedure, the Commission shall receive a copy of the procedure update at least 5 business days before the uprate can proceed.

### **Conclusion**

After examination of the request, staff recommends the commission issue an order granting CNG's request to install and operate a new regulator facility at greater than 500 psig (pounds per square inch gauge) and a pipeline facility at greater than 250 psig and up to 500 psig subject to the conditions in the order.