

Agenda Date: July 25, 2001
Item Number: 2G

Docket: **UG-010475**
Petition for approval to operate a facility under WAC 480-93-030
Boise-Cascade/City of Satsop

Staff: Sam Hicks, Pipeline Safety Engineer
David Lykken, Pipeline Safety Engineer

Recommendation

Staff recommends that the Commission grant an exemption from WAC 480-93-030 for the operation of the Boise Cascade-Satsop 4-inch high-pressure pipeline between 251 psig and 499 psig to be operated within 100 feet of proscribed areas.

Background

On May 6, 2001, Cascade Natural Gas Corporation (Cascade) filed a petition requesting the Commission approve the construction and operation of a high-pressure 305-psig 4-inch steel wrapped pipeline. This pipeline is 6.5 miles long and is located in Grays Harbor County, with a portion of the pipeline in the City of Satsop. Cascade classified this pipeline as a class four pipeline. Cascade has agreed to design, construct, and operate the natural gas pipeline to meet or exceed all the pipeline safety regulations of 49 CFR 192 and WAC 480-93.

Requirement

WAC 480-93-030-Proscribed areas, requires gas companies to obtain Commission approval to operate a pipeline between 251 psig and 499 psig within 100 feet of a proscribed area. A proscribed area includes buildings intended for human occupancy, and well-defined areas of public assembly such as a playground, recreation center, or outdoor theater.

- ❖ The pipeline has been designed to operate at a maximum allowable operating pressure (MAOP) of 305 psig. The pipeline will be specified as 4-inch diameter steel, grade X-42, with 0.188 inch nominal wall thickness and meet the requirements of The American Petroleum Institute (API) 5L. The resulting hoop stress shall be 8.7% of specified minimum yield strength (SMYS).
- ❖ The pipe will be coated with extruded polyethylene. For special circumstances, particularly on pipe pulled through bored holes, a layer of priatec coating will be applied to protect the existing coating from damage.

- ❖ All welds to be placed in service within 100 feet of a building intended for human occupancy will be radio-graphically inspected. The pipeline will be operating below 20% of SMYS. The standards set forth in 49 CFR 192 do not require welds to be radio-graphically tested. This is a safety requirement that was agreed upon between Commission Staff and Cascade for added safety to the public.
- ❖ Cascade will make reasonable efforts to avoid installing casings. If The Washington Department of Transportation (WDOT), Railroad companies, and other municipalities require Cascade to install casings, Commission Staff will be informed. Commission Staff does not recommend the use of casings, however other agencies do require casings for railroad, bridge, and highway crossings.
- ❖ The pipeline will be pressure tested to a minimum 1.5 times the maximum allowable operating pressure. The test duration will be held for 24 hours without pressure loss. The test medium shall be nitrogen gas. Any leak identified will be repaired and the pressure test will be restarted.
- ❖ Cathodic protection will be installed within 90 days of completion of the pipeline. Cathodic protection test stations will be installed at approximately every 500 yards to facilitate testing and monitoring of the corrosion protection system. The system will be monitored by conducting tests once every calendar year with intervals not to exceed 15 months. The tests will include pipe-to-soil potentials, foreign structure bond (interference), and insulators.
- ❖ Within 5 years of completion of construction, Cascade Natural Gas will perform appropriate surveys to determine the integrity of the pipeline coating and assess external corrosion.
- ❖ Pipeline markers will be placed approximately every 500 yards and at all points of deflection of the pipeline.
- ❖ Any excavation activities that may endanger the pipeline must be supervised by Cascade Natural Gas representatives to avoid damage to the pipeline.
- ❖ Flame ionization, or equivalent leak surveys of the pipeline, will be performed annually with intervals not to exceed 15 months. Surveys will be performed more frequently as necessary for special survey, earthquakes, or blasting. Company policy reflects this requirement for all high-pressure distribution pipelines. Safety standards set forth in 49 CFR 192.723 do not require this type of leak survey outside of business districts.
- ❖ Cascade Natural Gas's policy is to construct and test service lines to carry the same pressure as the main. It is Cascade Natural Gas's policy to install pressure regulators as far from the buildings as practical. This is under company procedure CP # 680 High Pressure Services Settings.

Public Information

Cascade Natural Gas held a public meeting regarding the Boise Cascade-Satsop pipeline proposal at the Satsop United Methodist Church on March 30, 2001. The meeting was held to explain this project to residents, and for Cascade Natural Gas to answer questions the residents may have. People from twenty-seven residences attended the meeting, and Cascade Natural Gas has stated that this project was well received. Cascade Natural Gas sent out a letter to the people living in the proscribed areas to inform them about the pipeline, and that they may contact the WUTC for comments and or questions.

The Commission has received no public comment.

Recommendation

Staff recommends that the Commission grant an exemption from WAC 480-93-030 for operation with a maximum allowable operating pressure between 251 and 499 psig and within 100 feet of proscribed areas for Cascade Natural Gas Corporation's Boise Cascade-Satsop 4-inch high-pressure pipeline.