BEFORE THE WASHINGTON STATE
UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Petition of	)	DOCKET PG-110896
	)	
CASCADE NATURAL GAS CORPORATION,	)	ORDER 01
	)	
Petitioner,	)	
	)	
Seeking Authorization to Operate a Facility with a Maximum Allowable Operating Pressure Greater Than 250 PSIG Pursuant to WAC 480-93-020	)	ORDER GRANTING PETITION
. . . . .	)	

BACKGROUND

1 On May 13, 2011, Cascade Natural Gas Corporation (Cascade or Company), filed with the Washington Utilities and Transportation Commission (Commission) a petition requesting Commission approval to operate a pipeline at greater than 250 psig (pounds per square inch gauge).

2 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.

3 The proposed pipeline has two structures identified as family residences, within 100 feet of the proposed pipeline.

4 The Company proposes to construct a 6,000 feet pipeline, 12-inch diameter located in rural Mason County. The proposed Kitsap Pipeline (Phase 6) will be located in an existing easement and parallel to an 8-inch pipeline. Cascade proposes that the pipeline will begin at the Shelton Gate Station near W Deegan Road West and terminates at valve, V-61. The proposed pipeline segment will connect the existing Shelton Gate Station and Kitsap Transmission Line (Phase 3) located at V-61.

5 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 proposed pipeline route (Class 1 Location) is limited to a hoop stress no greater than 20 percent of the SMYS of the pipe. The pipeline will be constructed for a maximum allowable operating pressure (MAOP) of 500 psig or a hoop stress of 16.4 percent of SMYS, less than 20 percent SMYS for Class 1 Location. 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 24.5 percent of SMYS.

6 Commission Staff reviewed the request and recommends the Commission grant the petition subject to the following condition(s):

(a) **Filings and Notices:**

1. Notify the Commission two business days prior to the commencement of construction.

2. Residents along the pipeline right-of way have been contacted and informed of the future pipeline construction and any additional information found in the public awareness requirements of Code of Federal Regulation (CFR), Title 49, Part 192.616.

3. Notify the Commission two business days prior to commencement of pressure test.

4. Submit ESRI GIS Shapefiles of the pipeline route, valves, rectifiers, and cathodic protection testing points, to the Commission within six months of project completion.

(b) **Design and Construction**

1. The 12-inch diameter pipe will be constructed of American Petroleum Institute (API) 5L Grade X-52 Steel line pipe with a nominal wall thickness of 0.375 inch, and coated with fusion bonded epoxy. Fittings will be a minimum standard weight, ANSI 16.9 WPHY-52 to meet or exceed the design rating of the 12-inch line pipe.

2. The pipeline will be built to maintain the pipe stress level for natural gas at or below 16.4 percent of the SMYS at the MAOP of 500 psig.

3. Cascade will construct the pipeline to accommodate in-line inspection tools such as "Smart Pigs." The pipe bend radius will be a minimum of three diameters to facilitate a wide range of inspection tools.

4. Mainline valves will be located at both ends of the pipeline segment.

5. Cascade will radiographically examine 100 percent of all girth welds or at a minimum 90 percent of the pipeline and above ground piping except welds that cannot be radiographed. Cascade will provide, upon request by Staff, written documentation where radiographs are impractical including the certified radiographer's statement. All welds will be inspected and defects will be replaced or repaired in accordance with Cascade's standards. All repaired welds will be radiographed to ensure pipeline integrity and compliance with existing standards.

6. The entire pipeline coating will be electrically tested or "jeeped" for flaws to ensure coating integrity. Any flaws will be repaired in accordance with Cascade's standards.

7. Any portions of the pipeline that are horizontally directionally drilled (HDD) will use abrasion resistant (ARO) coating.

8. Cascade will apply backfill materials around the pipe to protect the pipe and coating, in accordance with Cascade's standards. The material around the pipe will be free from sharp rocks with the maximum particle size of one half inch and containing a large percentage of fines. Rock shield is allowed where the use of sand is impractical or prohibited. The backfill material shall be free from sharp objects and large clods that could damage the pipe and coating.

9. The pipeline will be buried with at least 42-inches of cover. However, cover of no less than 36-inches is allowed where 42-inches is unattainable.

10. Cascade will pressure test with water to a minimum of one and one-half times the MAOP. The test will be for 24 hours without pressure loss unless the pressure loss can be justified by corresponding change in pipe temperature. If Cascade identifies any leak, Cascade will stop the pressure test, repair the leak and restart the pressure test.

11. Cascade will post exposed (unburied) piping areas with signs three days prior to and the day of the pipeline test. The signs will be easily seen warning people to keep out of the area during a high pressure pipeline test. The signs will provide specific date and time of the test. The lettering for the signs will be typical labeling for Cascade's right-of-way markers.

12. Cascade will install cathodic protection within 90 days after the pipeline is installed.

13. Cathodic protection test locations will be installed at intervals sufficient to determine the adequate protection of the pipeline during surveys.

(c) **Operations and Maintenance**

1. Cascade shall not operate the pipeline in excess of 500 psig, without further Commission approval.

2. Cascade will conduct leak surveys in accordance with Cascade's Operating Standard. The survey will be conducted annually, not to exceed 15 months.

FINDINGS AND CONCLUSIONS

7 (1) The Washington Utilities and Transportation Commission is an agency of the State of Washington vested by statute with the authority to adopt and enforce rules for gas pipeline safety. *RCW 81.88.040 and RCW 81.88.065*.

8 (2) Cascade is a gas pipeline company and subject to Commission jurisdiction.

9 (3) 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 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 SMYS of the pipe.

10 (4) The proposed 12-inch diameter pipeline approximately 6000 feet in length located in the vicinity of US Route 101 in Mason County, Washington will be constructed and operated by Cascade. The purpose of the pipeline it to provide increased gas supply to the Kitsap County gas distribution system and allow pressure reduction on the existing 8-inch pipeline.

11 (5) This matter came before the Commission at its regularly scheduled meeting on July 28, 2011.

12 (6) After reviewing Cascade's petition and giving due consideration to all relevant matters and for good cause shown, the Commission finds it is consistent with the public interest to conditionally grant Cascade's request to operate at greater than 250 psig up to and including 500 psig subject to the conditions recommended by Commission Staff in paragraph 6 of this order.

O R D E R

THE COMMISSION ORDERS:

13 (1) After the effective date of this Order, the petition of Cascade Natural Gas Corporation for authorization to operate a pipeline given in paragraph 4 at greater than 250 psig up to and including 500 psig is granted.

14 (2) This authorization is conditioned on Cascade meeting the following, which exceed the minimum regulatory requirements:

(a) **Filings and Notices**

1. Notify the Commission two business days prior to the commencement of construction.

2. Residents along the pipeline right-of -way have be contacted and informed of the future pipeline construction and any additional information found in the public awareness requirements of CFR 192.616.

3. Notify the Commission two business days prior to commencement of pressure test.

4. Submit ESRI GIS Shapefiles of the pipeline route, valves, rectifiers, and cathodic protection testing points, to the Commission within six months of project completion.

(b) **Design and Construction**

1. The 12-inch diameter pipe will be constructed of American Petroleum Institute (API) 5L Grade X-52 Steel line pipe with a nominal wall thickness of 0.375 inch, and coated with fusion bonded epoxy. Fittings will be a minimum standard weight, ANSI 16.9 WPHY-52 to meet or exceed the design rating of the 12-inch line pipe.

2. The pipeline will be built to maintain the pipe stress level for natural gas at or below 16.4 percent of the SMYS at the MAOP of 500 psig.

3. Cascade will construct the pipeline to accommodate in-line inspection tools such as "Smart Pigs." The pipe bend radius will be a minimum of three diameters to facilitate a wide range of inspection tools.

4. Mainline valves will be located at both ends of the pipeline segment.

5. Cascade will radiographically examine 100 percent of all girth welds or at a minimum 90 percent of the pipeline and above ground piping except welds that cannot be radiographed. Cascade will provide, upon request by Staff, written documentation where radiographs are impractical including the certified radiographer's statement. All welds will be inspected and defects will be replaced or repaired in accordance with Cascade's standards. All repaired welds will be radiographed to ensure pipeline integrity and compliance with existing standards.

6. The entire pipeline coating will be electrically tested or "jeeped" for flaws to ensure coating integrity. Any flaws will be repaired in accordance with Cascade's standards.

7. Any portions of the pipeline that are horizontally directionally drilled (HDD) will use abrasion resistant (ARO) coating.

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corresponding change in pipe temperature. If Cascade identifies any leak, Cascade will stop the pressure test, repair the leak and restart the pressure test.

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12. Cascade will install cathodic protection within 90 days after the pipeline is installed.

13. Cathodic protection test locations will be installed at intervals sufficient to determine the adequate protection of the pipeline during surveys.

(c) **Operations and Maintenances**

1. Cascade shall not operate the pipeline in excess of 500 psig, without further Commission approval.

2. Cascade will conduct leak surveys per Cascade's Operating Standard. The survey will be conducted annually, not to exceed 15 months.

15 (3) The Commission retains jurisdiction over the subject matter and Cascade Natural Gas Corporation to effectuate the provisions of this Order.

DATED at Olympia, Washington, and effective July 28, 2011.

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

JEFFREY D. GOLTZ, Chairman

PATRICK J. OSHIE, Commissioner

PHILIP B. JONES, Commissioner