



PUGET
SOUND
ENERGY

UG-001809
(P)

November 15, 2000

Carole J. Washburn, Secretary
Washington Utilities and Transportation Commission
PO Box 47250
Olympia, WA 98504-7250
Attn: Doug Kilpatrick

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OFFICE OF THE SECRETARY
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Dear Secretary Washburn:

Pursuant to WAC 480-93-020, Puget Sound Energy (PSE) requests approval to operate the inlet piping to the proposed Novelty Hill Gate Station at pressures exceeding 500 psig. In addition, pursuant to WAC 480-93-160, PSE hereby notifies WUTC of its intention to construct facilities that will operate at more than 20% of the specified minimum yield strength of the pipe used. This pipeline will provide additional gas supply to the Redmond, Duvall, Woodinville, and eventually Carnation areas ensuring reliability as growth increases.

The Novelty Hill Gate Station is scheduled to be installed by November 22, 2000 and will be tested at a minimum of 1440 psig. The minimum component rating will be 1440 psig (ANSI 600) and the MAOP will be at least 960 psig. PSE proposes to operate the inlet to the gate station at 960 psig. All piping downstream of the gate station will be operated at a maximum of 250 psig. The inlet piping to the gate station will be approximately 210 feet of 8", with approximately 80 feet of 6" bypass piping.

If you have any questions or require any additional information after having reviewed the enclosed documentation, please call me at (206) 224-2106.

Sincerely,

Duane A. Henderson, PE
Manager Standards and Work Practices

Attachments

cc: S. Secrist

Exhibit A - GENERAL INFORMATION

Situation:

A new gate station is proposed for the Novelty Hill area, northeast of the city of Redmond in King County. The gate station will supply gas at 250 psig to an existing 12" pipeline, which ultimately will be extended to provide additional gas supply to the Redmond, Woodinville, Duvall, and Carnation areas ensuring reliability as gas demand increases. By providing needed supply to these areas of significant growth, the new gate station and downstream supply system will shift demand from the Redmond gate station and enable it, and the existing Redmond supply mains, to supply the growing demand further south and east. The location for the proposed gate station is immediately adjacent to the existing right-of-way for the Williams gas pipelines. This close proximity minimizes the exposure of the public to higher-pressure gas facilities while also minimizing the distribution infrastructure required to satisfy future loads.

Facilities:

The new Novelty Hill Gate Station will tap into Williams Gas Pipeline West south of Novelty Hill Road and, through overpressure protected regulation, will reduce the pressure from 960 psig to 250 psig. A second regulator station within the gate station property will further reduce pressure to 60 psig. Two pipelines will exit the station; one will deliver gas at 250 psig, and will connect to a 12" pipeline, constructed in 1999 and operating at 250 psig. The other pipeline exiting the station will deliver gas at 60 psig.

MAOP:

The Novelty Hill Gate Station will be designed and tested for an inlet MAOP of 960 psig.

Pipe and Fitting Specifications:

The pipe and fitting specifications with the corresponding percentage of specified minimum yield strength at MAOP and normal operating pressure for the gate station inlet that will operate at greater than 20% SMYS is shown in the table below.

Inlet Piping:

Material Specification	% SMYS @ MAOP (960 psig)
8" x 0.322" w.t. API 5L Grade B pipe	36.7
8" x 0.322" w.t. MSS-SP-75 WPB fittings	36.7
6" x 0.280" w.t. API 5L Grade B pipe	32.5
6" x 0.280" w.t. MSS-SP-75 WPB fittings	32.5

All other pipe and fittings will be designed to operate at a lower percent-SMYS than the 6" pipe.

Valves:

Inlet, outlet, bypass, and header valves will be installed where appropriate to facilitate emergency and maintenance operations. All valves upstream of the station outlet valve will be ANSI Class 600 with a minimum pressure rating of 1440 psig.

Damage Prevention:

All piping will be located within a fenced area on PSE property, which will minimize exposure to third party damage. PSE is a participating member of the Underground Utilities Location Center (UULC) and a user of the Northwest Utility Notification Center (NUNC) services. Our third-party damage prevention responsibilities are defined in Operating Standards 2.6, Damage Prevention Program – One Call Program, and 2.7, Damage Prevention Program – Construction Work Near Gas Facilities.

Cathodic Protection:

The corrosion control program will be designed and installed in accordance with the requirements of the PSE Gas Operating Standards and Gas Standards Procedures Manual. The following standards and procedures are applicable to the supply main:

Standards:

- 10.1 External Corrosion Control - Cathodic Protection Requirements
- 10.2 External Corrosion Control - Test Stations
- 10.3 Cathodic Protection Systems - Design and Installation
- 10.4 Electrical Isolation and Grounding Requirements
- 10.5 External Corrosion Control - Monitoring Cathodic Protection
- 10.7 Examination of Buried Pipelines and Monitoring for Internal and Atmospheric Corrosion
- 10.8 Corrosion Control - Remedial Measures

Procedures:

- P0201 Installing Anodes
- P0300 Bonding Conductors to Steel or Cast Iron Pipe
- P0303 Installing Cathodic Protection Test Stations
- P0311 Application of Cold-Applied Pipe Tape
- P0312 Application of Cold-Applied Mastic

Coating:

As outlined in Operating Standard 10.1 an external protective coating shall be applied to the pipeline. Any field joints and fittings not supplied with protective coatings will have field applied coating, in accordance with Operating Standard 6.11, Field Coatings for Pipe and Fittings. All above-ground piping and supports, and all steel for the heater, will be sand-blasted and painted according to these specifications:

- Prime Coat: Wasser MC-Zinc, 3 mils DFT
- Second Coat: Wasser MC-Ferrox B, 3 mils DFT
- Final Coat: Wasser MC-Shieldcoat, 1-1/2 mils DFT, color: semi-gloss gray

Pressure Testing:

All inlet piping will be certified with a MAOP of 960 psig, and will be tested to a minimum pressure of 1440 psig. All 6-inch and larger inlet piping will be hydrostatically tested. Short sections of small-diameter piping and components tied to the inlet piping may be tested with nitrogen or air at a test pressure not less than 1500 psig and not greater than 2000 psig. All leaks or defects noted will be repaired or replaced and retested. All testing will be done in accordance with PSE Gas Operating Standard 6.14.

Welding:

All welding and welding inspection will conform to the following PSE Gas Operating Standards:

- 6.9 Steel Pipe and Fittings Installation Requirements
- 6.9.1 Welder Qualification Requirements
- 6.9.2 Welding Inspection and Repair of Welds
- 6.9.3 Qualification of Welding Inspectors
- 6.9.4 Procedure and Welder Qualification Requirements

Welding inspection methods and procedures will be in accordance with Operating Standard 6.9.2.

In addition, PSE has a comprehensive set of welding procedures that are included in the Gas Standards Procedures Manual. All welding to be done on this project will be governed by these procedures:

- SMA-B-2 Shielded Metal Arc – Butt Weld
- SMA-B-3 Shielded Metal Arc – Butt Weld
- SMA-F-2 Shielded Metal Arc – Fillet Weld
- SMA-F-4 Shielded Metal Arc – Fillet Weld
- OA-B-1 Oxy-Acetylene – Butt Weld

If any new procedures are required for the welding on this project, they will be qualified in accordance with PSE Operating Standards and added to the Gas Standards Procedures Manual.

The chief welding inspector will be Operations Coordinator Marcus Straume, who can be reached at (425)418-7058. Welding inspection records will be in the possession of Mr. Straume during construction, and will be filed with the job records after construction.

Proximity Considerations:

Two attached exhibits provide information on the proximity of buildings, residential and commercial properties, and well defined outside areas, as defined by WAC 480-93-020.

Exhibit B is a list of existing homes, all in the Westchester development, which have properties within 500 feet of the proposed station fence.

Exhibit C is a plan view of the station, including a circle representing a 500 foot distance from the proposed gate station fence. The plan view shows developed properties, all in the Westchester development, that are within 500 feet of the fence. All other property within 500 feet of the fence and not in the Westchester development is currently under development by Quadrant. The current zoning of the Quadrant property is shown on the plan view.

We have an aerial photograph of the property and surrounding land on which the gate station will be built. An overlay of the photograph includes a circle representing a 500-foot distance from the proposed gate station fence. This photograph is available for your review upon request.

Monitoring:

At station commissioning and for up to six months thereafter, the pressure within the piping leaving the gate station will be monitored by an on-site pen gage. Within six months of station commissioning, remote telemetry units (RTU) will monitor pressures and flows within the station. The RTUs will poll system pressures approximately every 2 minutes. These pressures and flows will be monitored 24 hours a day in PSE's 24 hour Operations Center.

Exhibit B**Existing Westchester Homes with properties within 500 feet from gate station fence**

No.	Property #	Address	Street	Zip	Approx. distance
1	43	10311	219TH CT NE	98053-7655	510'
2	44	10314	219TH CT NE	98053-7655	400'
3	45	10310	219TH CT NE	98053-7655	420'
4	50	21815	NE 104TH PL	98053-7680	410'
5	51	21827	NE 104TH PL	98053-7680	220'
6	52	21835	NE 104TH PL	98053-7680	170'
7	53	21845	NE 104TH PL	98053-7680	180'
8	54	21855	NE 104TH PL	98053-7680	280'
9	55	21863	NE 104TH PL	98053-7680	440'
10	56	21866	NE 104TH PL	98053-7680	520'
11	57	21858	NE 104TH PL	98053-7680	450'
12	58	21848	NE 104TH PL	98053-7680	350'

RETAIL

SCALE : 1" = 200'



IDENTIAL
SELLINGS PER ACRE

SW33-26-06
179.096

WESTCHESTER HEI

SW33-26-0
179.096

RESIDENTIAL
D DWELLINGS PER ACRE

CALL 1-800-424-8888
2 BUSINESS DAYS BEFORE YOU DIG
THIS SKETCH NOT TO BE RELIED UPON FOR EXACT LOCATION OF FACILITIES

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5	/ /				
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REVR	DATE	BY	DESCRIPTION	ENGR - POWER:	J EWING (206) 224-2094 10/12/00
COUNTY	KING	EMER SEC 13	Work Center	DRAWN BY:	JMALM (206) 224-2161 10/12/00
1/4 SEC	SE-33-26-06	OP MAP 176.092	PLAT MAP 179.091	APPROVED BY:	() - / /
	SW-33-26-06		179.096	FOREMAN #1:	() - / /
U-MAP# (POWER)		CIR MAP#	CIRCUIT#	FOREMAN #2:	() - / /
				MAPPING:	() - / /

JOINT FACILITIES ARRANG	
UTILITIES	
CONTACT	
PHONE#	

NOVELTY HILL GATE STATION
600' CIRCUMFERENCE & ZONING

Attachment C

PROJECT#	SAP SUPERIOR ORDER#
	109004076
SCALE: 1" = 200'	1 / 1

Plotted: 10/18/2000 0:12:10:25 PM CJMALM