

Exhibit A – Facility Information

I. Authorization Request Scope

Background:

Williams Northwest Pipeline (NWP) currently owns and operates the Frederickson Gate station located at 4910 192 ST E. This station provides gas to the Lakewood/Tacoma region via PSE's 16" Fredrickson Supply main, which currently operates at 380 psig. As part of the long term plan to serve growing load in the Tacoma area, PSE must increase both the pressure and flow through the Frederickson Gate station. In order to accomplish this, NWP will be retiring their regulation equipment; PSE will be rebuilding the facilities completely and assuming operation responsibilities. PSE will install new regulation, overpressure protection and line heating equipment at the existing gate station site. The gate station will be redesigned, constructed, and tested for an MAOP of 1000 psig, sufficient to handle line pressure from NWP. The pipeline facilities upstream of regulation will operate at NWP line pressure, up to 960 psig.

Petition Scope:

This pressure authorization request is to operate the PSE Frederickson Gate station piping at a pressure of 960 psig.

II. Frederickson Gate Station Piping Details

Existing Facility Description:

The Frederickson Gate station is a NWP/PSE facility northeast of Spanaway on 192nd near 50th Ave E. The existing gate station consists of NWP operated metering, regulation and gas heating facilities, as well as PSE owned and operated odorization facilities. The station site also contains a PSE intermediate pressure (IP) regulator station (RS-2753) with a small line heater.

The facility is located in a rural industrial area near the PSE Frederickson generation plant. There is one commercial building within 500' proximity to the station site, north of 192nd St. Refer to exhibit B for a proximity map.

Proposed Facility Configuration:

In order to increase the delivery pressure and throughput, NWP will be retiring their existing regulation and heating equipment and rebuilding metering equipment within their existing building. PSE will construct new regulating equipment as well as heating equipment. PSE will take over responsibility for heating and pressure regulation at this facility. The inlet pressure will be NWP line pressure and the outlet pressure from the station will be a maximum of 500 psig. **Note:** PSE obtained authorization to operate the downstream 16" Frederickson supply main at up to 500 psig operation at the time the main was installed in 2008 (see PG-081033).

The PSE facility is currently in the design phase. The station will consist of two stages of pressure regulation, over pressure protection, a line heater, and pressure and temperature

instrumentation. A portion of the station piping will be located above ground, and the station design may include shelters for some of the equipment. The existing odorizer, IP regulators and IP station heater will remain unchanged.

MAOP:

The rebuilt PSE station will be designed and tested for a Maximum Allowable Operating Pressure (“MAOP”) of 960 psig, which matches the NWP upstream pipeline MAOP.

Pipe and Fitting Specifications:

PSE Facilities are in the design phase; a preliminary list of proposed pipe and fitting specifications, with the corresponding percentage of specified minimum yield strength at MAOP and typical operating pressure, is shown in the table below.

Material Specification	% SYMS @ Proposed MAOP (960 psig)	% SYMS @ Proposed Typical Operating Pressure (900 psig)
12” x 0.500” w.t. API 5L X65	18.84	17.66
10” x 0.500” w.t. API 5L X60	17.20	16.13
8” x 0.500” w.t. API 5L X46	16.88	18.00
6” x 0.280” w.t. API 5L X60	18.93	17.75
4” x 0.237” w.t. API 5L X46	19.82	18.58
12” x 0.500” w.t. WPHY Y65 fittings	18.84	17.66
10” x 0.500” w.t. WPHY Y60 fittings	17.20	16.13
8” x 0.500” w.t. WPHY Y46 fittings	16.88	18.00
6” x 0.280” w.t. WPHY Y60 fittings	18.93	17.75
4” x 0.237” w.t. WPHY Y46 fittings	19.82	18.58

2” and smaller pipe (NPS) will use PSE stock materials which will operate at less than 20% SMYS at the proposed 960 psig MAOP. All rated components will have a working pressure rating of at least 1000 psig.

Testing:

All of the new piping installed as part of the gate station will be tested at a minimum test pressure of 1440 psig (1.5 times the MAOP). All testing will be conducted in accordance with PSE Gas Operating Standard 2525.3300 and in accordance with an approved written test procedure.

Proximity Survey:

The gate station property is located in proximity to one commercial building on the north side of 192nd St E, with an address of 5109 192nd St E. The building was constructed in 2014 per Pierce County records. The measurement from the adjacent commercial building to the existing PSE/NWP fence is approximately 375 ft. The station rebuild plans currently locate the new regulators and the new line heater south of this PSE/NWP fencing.

III. General Construction Details for Proposed Facilities

This section lists the general construction details that are applicable to the new piping

Cover – All new buried piping will have 36" of cover, wherever possible.

Backfill - All shading and bedding material will be imported sand. All other backfill materials will be free of sharp rocks with a maximum particle size of 1/2".

Clearance – When practical, 36" of separation will be maintained between new piping and other underground facilities. The minimum clearances required per GOS 2525.1700 will be achieved.

Coating – An external protective coating will be applied to all new piping installed as part of the tie-over or the new stations. New buried pipe will have factory-installed FBE or X-Tru coating (smaller piping such as control lines). Any field joints, pipe or fittings not supplied with protective coatings will be treated with field applied coating, and all above-ground piping (at regulator stations) will be painted using an approved coating. Field applied and factory applied coatings all must meet the requirements of PSE GOS 2600.1100, Coatings for Pipe and Fittings.

Welding – All new piping (station piping and tie-over piping) will be installed and inspected per the following PSE Gas Operating Standards.

PSE GOS	Subject
2525.2700	Installation Requirements for Steel Pipe and Fittings
2700.1100	Welder Qualification Requirements
2700.1200	Weld Inspection and Repair
2700.1300	Weld Inspector Qualification Requirements
2700.1400	Welder and Procedure Qualification Test Requirements

In addition, PSE has a comprehensive set of welding procedures that are included in the PSE Welding Manual. If any new procedures are required for welding on this project, they will be qualified in accordance with PSE Gas Operating Standards and added to the Gas Welding Manual.

A minimum of 90% of the circumferential welds on piping 4" and larger will be radiographically tested. 100% of tie in welds (welds which cannot be subjected to a pressure test) will be radiographically inspected prior to bringing the new pipe into service.

IV. Operations and Maintenance Details

This section lists the general operations and maintenance details that are applicable to the proposed station.

Cathodic Protection – The corrosion control system for the existing 16” pipeline was designed and installed in accordance with the requirements of PSE Operating Standards. All new piping will be installed in accordance with the current PSE Gas Operating standards listed below, and will be protected as part of the existing galvanic system which protects the existing 16” HP main.

PSE GOS	Subject
2600.1000	Cathodic Protection Requirements
2600.1100	Field Coatings for Pipe and Fittings
2600.1200	Test Station Requirements
2600.1300	Designing and Installing Cathodic Protection Systems
2600.1400	Electrical Isolation and Grounding Requirements
2600.1500	Monitoring Cathodic Protection
2600.1700	Monitoring and Remedial Measures for Internal Corrosion
2600.1900	Remedial Measures for Corrosion Control
2600.2000	Galvanic Anode Installation Requirements

Pressure Monitoring – The pressure in the new regulating facility will be monitored by remote telemetry units (RTUs). The RTUs constantly transmit system pressures to PSE’s Gas Control Center, where system pressures are monitored 24 hours a day.

Leakage Surveys – Leakage surveys will be conducted in accordance with PSE Gas Operating Standard 2625.1100, Leakage Survey Program. This Operating Standard requires leak surveys to be conducted annually for piping operating above 250 psig.

Damage Prevention – The proposed regulator station facilities are at low risk for third party damage, since the facilities will be enclosed within a fenced area outside of the road right of way.