Service Date: August 31, 2017

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Request of	DOCKET PG-170423
PUGET SOUND ENERGY	ORDER 01
Pursuant to WAC 480-93-020 for Approval to Operate New Piping at a Maximum Allowable Operating Pressure of 500 Pounds per Square Inch Gauge within 100 Feet of an Existing Structure Not Owned by Puget Sound Energy	ORDER APPROVING REQUEST

BACKGROUND

1 On June 12, 2017, Puget Sound Energy (PSE or Company) filed with the Washington Utilities and Transportation Commission (Commission) a request for approval to construct 1.75 miles of new 12-inch high pressure (HP) Bonney Lake pipeline. The new piping will operate at a pressure of up to 500 pounds per square inch (psig) within 100 feet of approximately 54 commercial and residential dwellings not owned by PSE.

2 The Commission has adopted the Code of Federal Regulations (CFR) Title 49, Part 192 and promulgated Washington Administrative Code (WAC) Chapter 480-93 as the minimum standards for gas pipeline construction. WAC 480-93-020 requires a gas pipeline company to obtain approval from the Commission to operate a gas pipeline at greater than 250 psig, up to and including 500 psig, within 100 feet of an existing building not owned by the gas pipeline company.

3 This project, identified as Bonney Lake HP Natural Gas Project, will begin by tying into an existing 6-inch HP pipeline at the intersection of 190th Ave. E. and Edwards Rd. in Bonney Lake. The new 1.75 mile long pipeline will travel east and south along Edwards Rd to 210th Ave. NE in Lake Tapps, where it will tie back in with the 6-inch HP pipeline. This new pipeline will be designed, constructed, and tested for a maximum allowable operating pressure (MAOP) of 500 psig with a specified minimum yield strength (SMYS) of 19.65 percent. Initially, the new line will operate along with the 6-inch HP line at no more than 250 psig. As growth in this area increases and the system requires reinforcement, additional phases will be completed. Eventually, PSE will add additional 12-inch HP phases paralleling the existing 6-inch HP pipeline and install a gate station

and limit station as needed.

4 Commission staff (Staff) reviewed the Company's proposed proximity request and calculations. Staff notes the following:

(a) The proposed pipe and pipeline materials are commensurate with the proposed MAOP.

(b) There are currently 54 buildings within 100 feet of new facilities operating at a pressure at 500 psig.

(c) At the proposed MAOP of 500 psig, the maximum stress level of the pipe and pipeline fittings would be below 20 percent of SMYS for pipeline and pipeline fittings.

(d) The proposed new pipeline will be located in a class 4 location (where code requires a 0.40 design factor), but is being designed with a design factor of 0.20, which is more stringent than the code requires.

(e) The proposed new pipeline will have valves installed at a spacing of less than one mile apart; this spacing is more stringent than code requirements (minimum of 2.5 miles apart).

(f) The new pipeline and the tie-in segments at both ends of the pipeline will be pressure tested to 750 psig, which is 1.5 times the MAOP of the new pipeline.

(g) At least one (potentially three) of the sections of the proposed pipe will be installed via directional drill. All pipe installed via directional drill will have abrasion resistant overlay coating applied to guard against abrasive damage that could occur as part of the installation process.

Staff finds that PSE's proposed construction meets all of the pertinent requirements of Title 49 CFR, Part 192 and WAC Chapter 480-93. Staff agrees with the Company that the selected location of the new pipeline has the least impact on surrounding population densities.

5 Staff recommends the Commission approve the Company's request subject to the following conditions, which are designed to minimize the risks to public safety from the proposed pipeline:

(a) For underground installations, PSE must electrically inspect (jeep) the pipe coating and repair any coating defects in accordance with PSE's operating standard prior to backfilling.

(b) PSE must submit "as-built" ESRI GIS Shapefiles of the pipeline location with final construction specifications to the Commission within six months of completing the project.

(c) For underground installations, PSE must apply backfill material around the pipe to protect the pipe and coating. The material around the pipe must be free of any sharp rocks or other objects with a maximum particle size of one-half inch and must contain a large percentage of fines, such as sand, native soil, or soil-based select materials.

(d) PSE must perform non-destructive testing (NTD) of 100 percent of all welds. PSE must remedy defects in the welds in accordance with PSE's operating standards and procedures. PSE must NDT all repaired welds to ensure pipeline integrity and compliance with existing standards.

(e) PSE must install cathodic protection within 90 days after the pipeline is installed.

(f) PSE must provide telephonic notice to the Commission Pipeline Safety Program followed by an email confirmation at least two business days prior to the beginning of project construction.

(g) PSE must contact residents within 100 feet of the new pipeline prior to the Commission's August 31, 2017, open meeting to inform them of the project construction and provide any additional information consistent with the public awareness requirements in Title 49 CFR, Part 192.616.

(h) PSE must test the pipeline to a minimum of 750 psig in all locations along the pipeline route. This test pressure is at least 1.5 times the intended MAOP of 500 psig. The test will be held in accordance with PSE procedures without pressure loss unless the loss can be justified by a corresponding change in temperature. If PSE identifies any leaks, PSE will stop the pressure test, repair the leak, and start the pressure test anew.

(i) Where physically practicable, PSE will bury the pipeline with a minimum of 48 inches of cover. Where 48 inches of cover is not practicable, PSE will bury the pipeline with a minimum of 36 inches of cover.

DISCUSSION

6 The Commission agrees with Staff's analysis and adopts its recommendations. The Commission's primary objective in regulating natural gas pipelines is to protect public safety. The rules the Commission has promulgated to govern pipelines incorporate and exceed federal requirements, and provide flexibility to establish safety standards tailored to individual projects. The Commission's proximity rule, WAC 480-93-020, allows pipeline Staff the opportunity to review construction plans of high pressure pipelines in close proximity to inhabited structures to address safety considerations. Staff's recommended conditions described in paragraph 5 appropriately minimize the public safety risk associated with the proposed pipeline. Accordingly, we approve the Company's request.

FINDINGS AND CONCLUSIONS

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

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

9 (3) PSE proposes to construct 1.75 miles of new 12-inch HP Bonney Lake pipeline operating at a pressure of up to 500 psig within 100 feet of approximately 54 commercial and residential dwellings not owned by PSE.

10 (4) The location PSE has selected for the new pipeline has the least impact on surrounding population densities.

11 (5) PSE's construction plans indicate that the proposed pipeline meets or exceeds all of the pertinent requirements of Title 49 CFR, Part 192 and WAC Chapter 480-93.

12 (6) The selected location of the proposed new pipe has the least impact on the surrounding community.

13 (7) The conditions recommended by Staff add requirements to this installation − some of which exceed federal and state regulations − that minimize the added risk of the close proximity of the pipeline to a habitable structure.

14 (8) This matter came before the Commission at its regularly scheduled open meeting on August 31, 2017.

15 (9) The Commission should approve PSE's proposal to construct 1.75 miles of new 12-inch HP Bonney Lake pipeline operating at a pressure of up to 500 psig within 100 feet of approximately 54 commercial and residential dwellings not owned by PSE as consistent with the public interest subject to the conditions Staff recommends.

ORDER

THE COMMISSION ORDERS:

16 (1) The Commission approves Puget Sound Energy's proposal to construct 1.75 miles of new 12-inch high pressure Bonney Lake pipeline operating at a pressure of up to 500 psig within 100 feet of approximately 54 commercial and residential dwellings not owned by Puget Sound Energy subject to the conditions set out in paragraph 5 of this Order.

17 (2) The Commission retains jurisdiction over the subject matter of this docket and Puget Sound Energy effectuate the terms of this Order.

DATED at Olympia, Washington, and effective August 31, 2017.

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DAVID W. DANNER, Chairman

ANN E. RENDAHL, Commissioner

JAY M. BALASBAS, Commissioner