PUGET SOUND ENERGY
The Energy To Do Great Things

March 17, 2010

Washington Utilities & Transportation Commission
Pipeline Safety Section
1300 S. Evergreen Park Drive S.W.
PO Box 47250
Olympia, WA 98504-7250

Attn: Dave Lykken, Pipeline Safety Director

Subject: 2008 Standard Inspection of Thurston/Lewis Counties Distribution System (Docket PG-080032)

Dear Mr. Lykken,

Pursuant to section 2 of Docket PG-080032 Puget Sound Energy (PSE) is hereby submitting for your consideration and approval, a proposal for the pipe supports assessment program at pressure regulator stations.

This pilot program allows PSE to acquire analytical data to evaluate pipe supports at regulator stations in most commonly encountered site conditions. The attached documents summarize its key elements including the reporting mechanism to the Commission and describe the proposed procedures and inspection strategies.

We look forward to WUTC approval being granted and the successful completion of the approved program.

If you have any questions regarding this submittal, please contact me at 425-462-3967.

Sincerely,

Helge Ferchert
Manager, Gas Compliance and Regulatory Audits

cc: Bert Valdman
Sue McLain
Tom DeBoer
Mike Hobbs
Duane Henderson

Enclosure

Pipe Supports Assessment Pilot Program

1. Scope

This document describes the assessment work required for pipe supports at selected regulator stations scheduled in 2010.

This is a one year program to validate that PSE's proposed atmospheric corrosion inspection methodology, documented in a white paper entitled "Atmospheric Corrosion Inspection", is an acceptable practice to be compliant with 49 CFR §192.481.

2. Responsibilities

2.1 *Consulting Engineer, Corrosion Control* is responsible for:

2.1.1 Conducting and documenting field inspections in accordance with the inspection procedures that are specified in the attached Pipe Support Inspection Report.

2.1.2 Evaluating the atmospheric corrosion inspection methodology based on the field inspection results.

2.2 *Supervisor, System Maintenance Planning* is responsible for:

2.2.1 Managing the program.

2.2.2 Ensuring scheduled assessment work is completed in a timely manner.

2.2.3 Maintaining program documentation as specified in Section 4.

2.2.4 Communicating the inspection schedule to the WUTC.

2.3 *Manager, Gas Compliance and Regulatory Audits* is responsible for:

2.3.1 Ensuring that the requirements of this program are met.

2.3.2 The reporting requirements set forth in Section 5.

3. General Requirements

3.1 The program shall be a one year program ending on December 31, 2010 and only apply to pipe supports at the regulator stations listed in paragraph 3.3.

3.2 The program shall provide field inspection data to validate PSE's proposed atmospheric corrosion inspection methodology for above ground pipe surfaces is acceptable practice.

3.2.1 The proposed atmospheric corrosion inspection method shall identify evidence of corrosion on pipe surfaces and determine the need for direct inspections.

3.2.2 Corrosion identified during the field inspection shall be remediated per PSE Gas Operating Standard 2600.1900.

3.2.3 Field inspection shall be performed on pipe surfaces prior to removing pipe supports and after removing pipe supports.

3.2.4 The completed inspection report shall be reviewed by a Corrosion Engineer for validation of PSE's proposed atmospheric corrosion inspection methodology.

3.3 Pipe Supports Inspection Schedule

Gate Stations	#'s of Pipe Supports	Year
Snohomish GS – 1336	6	2010
DR-2527	2	
Marysville LS - 2654	2	2010
Clearview TBS-1339	11	2010
N Bothell TBS - 2242	8	2010
Duvall GS – 2499	6	2010
DR-2500	5	
Cle Elum LS – 2726	17	2010

4. Records

4.1 Inspection records and remediation documentation shall be retained.

4.2 Photos of each inspection shall be retained with the inspection records.

5. Reports

The results of this pilot program shall be provided to WUTC by April 23, 2011 for the joint review of PSE and WUTC. The results shall include:

5.1 Inspection results from each of the regulator stations listed in paragraph 3.3 including a copy of the Pipe Support Inspection Reports.

5.2 An evaluation of the proposed atmospheric corrosion inspection methodology based on the inspection results.

PIPE SUPPORT ATMOSPHERIC CORROSION INSPECTION REPORT

Date		Regulator Station
	Plat	Pipe Support ID
Description of Pipe Support		

Characterization of Carrier Pipe

Diameter (inches)	Wall Thickness (inches)	Grade	MAOP (PSIG)	Year of Installation

Carrier Pipe at Pipe Support Sketch

PIPE SUPPORT ATMOSPHERIC CORROSION INSPECTION REPORT

Regulator Station ID:
Pipe Support ID:
Order Number:

TASK NO.	TASK	TASK COMPLETION[3]	DESCRIPTION
Indirect Inspection. Perform the following Tasks before removing or lowering pipe support.			
1	Sketch and Describe Carrier Pipe and Support	□	Sketch the pipe support and the carrier pipe on page 1. Describe pipe support in space provided below. Can support be lowered? □ YES □ NO. FRP shield installed? □ YES □ NO; sealed from moisture? □ YES □ NO. Moisture trapped at the interface? □ YES □ NO. Support material at the interface: metal □ YES □ NO; concrete □ YES □ NO; plastic □ YES □ NO; wood □ YES □ NO?
2	Photograph Carrier Pipe	□	Before cleaning the carrier pipe, photograph the support and interface from several angles. Include a scale such as a tape measure in the picture.
3	Inspect As-Found Condition of Carrier Pipe	□	Inspect the pipe at the support interface for coating damage or evidence of corrosion. Is there coating damage? □ YES □ NO. Is there rust stains? □ YES □ NO. Is there an accumulation of corrosion products? □ YES □ NO. Moss or dirt at the interface? □ YES □ NO.
4	Clean Carrier Pipe and Inspect	□	Wire brush the carrier pipe and support, removing the dirt and loose coating. Inspect the pipe at the support interface for damage or corrosion. Is there coating damage? □ YES □ NO. Exposed pipe at coating failures? □ YES □ NO. Is there surface rust? □ YES □ NO. Is there pitting? □ YES □ NO. Measure the extent and location of the damage or corrosion and pit depth. Record results on sketch, page 1:
5	Photograph Carrier Pipe	□	After cleaning the carrier pipe, photograph the support and interface from several angles. Include a wire brush in the picture.
Direct Examination. Perform the following Tasks after removing or lowering pipe support. Ensure carrier pipe has adequate temporary support before removing permanent support.			
6	Photograph Carrier Pipe	□	Before cleaning the carrier pipe, photograph the surfaces of the support and pipe that were in contact. Include a scale such as a tape measure in the picture.
7	Inspect As-Found Condition of Carrier Pipe	□	Inspect the surfaces of the carrier pipe that were in contact with support for coating damage or corrosion. Is there coating damage? □ YES □ NO. Is there rust stains? □ YES □ NO. Is there surface rust? □ YES □ NO. Is there pitting? □ YES □ NO.
8	Corrosion Product Sample	□	Is there any corrosion product? □ YES □ NO. What color is it: □ white; □ black; □ orange; □ other _____? Is it hard (scale) □ or soft □ ? If the corrosion product is moist, measure the pH. Is it moist? □ YES □ NO. pH = Remove the corrosion product. Collect the sample in a documented zip lock plastic bag[1].

Regulator Station ID:
Pipe Support ID:
Order Number:

TASK NO.	TASK	TASK COMPLETION[3]	DESCRIPTION
9	Clean Carrier Pipe and Inspect	□	Wire brush the carrier pipe, removing the dirt and loose coating. Inspect the carrier pipe for damage, corrosion, or pitting. Is there pitting? □ YES □ NO. Clean pits and measure: Maximum depth = Diameter of deepest pit = Longitudinal extent of the corroded area = Position of corrosion on the carrier pipe = O'clock looking downstream. Describe pits: Smooth? □ YES □ NO; Rough □ YES □ NO; Striated □ YES □ NO; Other? □ YES □ NO (describe):
10	Photograph Carrier Pipe	□	After cleaning the carrier pipe, photograph the surfaces of the support and carrier pipe that were in contact. Include a wire brush in the picture.
11	Carrier Pipe Wall Thickness Measurements	□	Measure carrier pipe wall thickness, using an ultrasonic thickness gage, at four circumferential positions. Record dimensions in mils (1 mil = 0.001 inch). Results at the following positions looking downstream: 12:00 = 3:00 = 6:00 = 9:00 =
12	Rate the Corrosion	□	□1 No Corrosion □ 2 Surface Rust □ 3 Minor Pitting □ 4 Major Corrosion Refer to GFP 4515.1220, Monitoring Atmospheric Corrosion
13	Remediation	□	Evaluate the corrosion using ASME B31G or RSTRENG. Is remediation recommended? □ YES □ NO. Type of remediation: Paint? □ YES □ NO FRP Shield and adhesive? □ YES □ NO Crevice sealant? □ YES □ NO Pipe repair? □ YES □ NO Support replacement? □ YES □ NO Other? □ YES □ NO. Describe other:
14	Give Consent to Reinstall Pipe Support	□	Inform construction crew when the inspection is finished and they can commence remediation and/or reinstallation of the permanent carrier pipe support.
15	Review Form	□	Check that each Task and the information fields on page 1 are completed. Sign and date the form at the bottom of page 3.
IND INSP DATE :			PREPARED BY[2] :
DIR EXAM DATE :			PREPARED BY[2] :

GENERAL NOTES:

1 Document the following on the plastic bag with a felt tip pen: 1) date, 2) job number, 3) Regulator Station Number, 4) Pipe Support ID, and 5) location sample taken from.
2 Print last name after signature.
3 Check box after task is completed.