

PHMSA Form 16 Question Set (IA Equivalent)
GAS TRANSMISSION INTEGRITY MANAGEMENT IMPLEMENTATION INSPECTION

Name of Operator: Puget Sound Energy		
OPID No. 22189	Unit ID No.	
HQ Address: PO Box 97034 M/S: EST-07W Bellevue, WA 98009-9734	System/Unit Name & Address: Transmission PO Box 97034 M/S: EST-07W Bellevue, WA 98009-9734	
Co. Official: Booga K. Gilbertson, Sr. VP Operations Phone No.: 425-462-3843 Fax No.: 425-462-3770 Emergency Phone No.: 800-552-7171	Co. Official: Booga K. Gilbertson, Sr. VP Operations Phone No.: 425-462-3843 Fax No.: 425-462-3770 Emergency Phone No.: 800-552-7171	
Persons Interviewed	Title	Phone No.
Michelle Gallardo	Corrosion Engineer	425-462-3859
State Representative(s): Dave Cullom		Inspection Date(s) Sept 22-25, Oct 1 and 29, 2015
Records Location:		Georgetown and Bellevue

Unit Description:											
<p>PSE removed casings on North Midway and Lynnwood. All casings have been removed in the transmission system in HCA locations except a new HCA discovered in 2013. PSE in their 2013 TIMP annual report details the segment's risk ranks. The table below has the lines sorted by risk rank. Sumas is listed but it is evaluated as its own unit due to it having interstate status.</p> <table border="1" style="margin-left: 20px; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Pipeline</th> </tr> <tr> <th style="text-align: center;">Pipeline Name</th> </tr> </thead> <tbody> <tr><td>South Seattle</td></tr> <tr><td>North Midway</td></tr> <tr><td>Lynnwood</td></tr> <tr><td>Jackson Prairie Transmission</td></tr> <tr><td>Olympia</td></tr> <tr><td>Jackson Prairie Supply Line</td></tr> <tr><td>Swarr</td></tr> <tr><td>Sumas</td></tr> <tr><td>Cedar Hills</td></tr> </tbody> </table>	Pipeline	Pipeline Name	South Seattle	North Midway	Lynnwood	Jackson Prairie Transmission	Olympia	Jackson Prairie Supply Line	Swarr	Sumas	Cedar Hills
Pipeline											
Pipeline Name											
South Seattle											
North Midway											
Lynnwood											
Jackson Prairie Transmission											
Olympia											
Jackson Prairie Supply Line											
Swarr											
Sumas											
Cedar Hills											

Portion of Unit Inspected:

This unit had multiple transmission segments that were considered transmission for either operating above 20% SMYS or they were “functionally” transmission lines for operating upstream of a distribution center. The segments inspected in the field are listed in the field notes document and all records for the past three years required to be retained under Part 192 and WAC 480-93 were reviewed. In the field we checked pressures, cathodic protection, atmospheric corrosion, and operated several emergency valves.

Sat+ - Exceeds requirements/exemplary performance

Sat – Meets requirements

Con – “Concern” meets requirements, but is an area of recommendation and/or area that if not addressed may lead to non-compliance

Unsat – Does not meet requirements

N/A – Not Applicable

N/C – Not Checked

Assessment and Repair - External Corrosion Direct Assessment (ECDA)

12. ECDA Post-Assessment (detail) *From the review of the results of selected integrity assessments, were requirements met for post assessment?* (AR.EC.ECDAPOSTASSESS.R) (detail)

192.925(b)(4) (NACE SP-0502-2002 Section 6.2)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

They pulled several jobs for the last three years. They use an ECDA indication alignment and prioritization form.

Assessment and Repair - Internal Corrosion Direct Assessment

10. Post-Assessment Evaluation and Monitoring (detail) *From the review of the results of selected integrity assessments, did the operator assess the effectiveness of the ICDA process?* (AR.IC.ICDAPOSTASSESS.R) (detail)

192.927(c)(4)(i) (192.927(c)(4)(ii))	Sat+	Sat	Concern	Unsat	NA X	NC
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Notes

They do not use ICDA.

Assessment and Repair - In-Line Inspection (Smart Pigs)

8. Validation of ILI Results (detail) *From a review of field staff, do the employees and vendors validate ILI assessment results per their procedures?* (AR.IL.ILIVALIDATE.O) (detail)

192.921(a)(1) (B31.8S Section 6.2.6)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes Used for Sumas only

12. ILI Acceptance Criteria (detail) *Do records indicate adequate implementation of the process for ILI survey acceptance?* (AR.IL.ILIACCEPCRITERIA.R) (detail)

192.921(a) (B31.8S Section 6.2.5)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

15. Compliance with ILI Procedures (detail) *Are O&M and IMP procedural requirements for the performance of ILI followed?* (AR.IL.ILIIMPLEMENT.O) (detail)

192.620(d)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

Assessment and Repair - Other Technology

4. Other Technology (detail) *From the review of the results of selected integrity assessments, was the assessment performed in accordance with the process and vendor recommendations?* (AR.OT.OTPLAN.R) (detail)

192.921(a)(4)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

They used the guided wave in 2015 as a supplement for North Midway.

Assessment and Repair - Integrity Assessment Via Pressure Test

2. Pressure Test Results (detail) *From the review of the results of pressure tests, do the test records validate the pressure test?* (AR.PTI.PRESSTESTRESULT.R) (detail)

192.517(a) (192.505(a); 192.505(b); 192.505(c); 192.505(d); 192.505(e); 192.507(a); 192.507(b); 192.507(c); 192.617; 192.919(e); 192.921(a)(2); B31.8S Section 6.3.4)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

Assessment and Repair - Repair Criteria

9. Field Inspection - Remedial Actions (IM) (detail) *Is anomaly remediation and documentation of remediation adequate for all covered segments?* (AR.RC.REMEDIATION.O) (detail)

192.933(c) (192.933(a); 192.933(d))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						
They always remove suspect coating. They used clock springs for a repair.						

Assessment and Repair - Repair Methods and Practices

2. Safety While Making Repair (detail) *Are repairs made in a safe manner and to prevent damage to persons and property?* (AR.RMP.SAFETY.O) (detail)

192.605(b)(9) (192.713(b))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

5. Prevention of Accidental Ignition (detail) *Perform observations of selected locations to verify that adequate steps have been taken by the operator to minimize the potential for accidental ignition.* (AR.RMP.IGNITION.O) (detail)

192.751(a) (192.751(b); 192.751(c))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

17. Inspection of Welds (detail) *Were welds inspected and examined in accordance with §192.241 and §192.243?* (AR.RMP.WELDINSPECT.O) (detail)

192.241(a) (192.241(b); 192.241(c); 192.243(a); 192.243(b); 192.243(c); 192.243(d); 192.243(e); 192.243(f))	Sat+	Sat	Concern	Unsat	NA X	NC
Notes						
No welding was performed for the transmission line repairs.						

25. Transmission Lines Testing of Repairs (detail) *Does the operator properly test replacement pipe and repairs made by welding on transmission lines?* (AR.RMP.WELDTEST.O) (detail)

192.719(a) (192.719(b))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						
The Segale project was reviewed.						

Assessment and Repair - Stress Corrosion Cracking

4. Assessment Method (High pH SCC) (detail) *From the review of the results of selected integrity assessments, did the operator perform an assessment using one of the methods specified in B31.8S Appendix A3? (AR.SCC.SCCDAMETHOD.R) (detail)*

192.929(b)(2) (B31.8S Appendix A3)	Sat+	Sat	Concern	Unsat	NA X	NC
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Notes

The operator has not found any SCC.

Design and Construction - Construction Welding Procedures

3. Welding Procedures (detail) *Are weld procedures being qualified in accordance with §192.225? (DC.WELDPROCEDURE.WELD.O) (detail)*

192.225(a) (192.225(b))	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

6. Welding Weather (detail) *Are welding operations are protected from certain weather conditions? (DC.WELDPROCEDURE.WELDWEATHER.O) (detail)*

192.231	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

11. Preparation for Welding (detail) *Are welding preparations made in accordance with §192.235? (DC.WELDPROCEDURE.WELDPREP.O) (detail)*

192.235	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

Design and Construction - Construction Weld Inspection

3. Inspection and Test of Welds (detail) *Are individuals who perform visual inspection of welding qualified? (DC.WELDINSPECTION.WELDVISUALQUAL.O) (detail)*

192.241(a) (192.241(b); 192.241(c); 192.807(b))	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

6. Nondestructive Test and Interpretation Procedures (detail) *Are NDT procedures adequate?*

(DC.WELDINSP.WELDNDT.O) (detail)

192.243(a) (192.243(b)(1); 192.243(b)(2); 192.243(c); 192.243(a))

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

9. Repair or Removal of Weld Defects (detail) *Are unacceptable welds removed and/or repaired?*

(DC.WELDINSP.WELDREPAIR.O) (detail)

192.245(a) (192.245(b); 192.245(c))

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

Design and Construction - Construction

18. Inspection of Materials (detail) *Are pipe lengths and other pipeline components visually inspected to ensure they are not damaged?* (DC.CO.INSPECTVISUAL.O) (detail)

192.307

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

21. Repair of Steel Pipe (detail) *Are repairs to steel pipe made in accordance with §192.309?* (DC.CO.REPAIR.O) (detail)

192.309(a) (192.309(b); 192.309(c); 192.309(d); 192.309(e))

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

34. Installation of Pipe in a Ditch (detail) *When pipe is placed in the ditch, is it installed so as to fit the ditch, minimize stresses, and protect the pipe coating from damage?* (DC.CO.INSTALL.O) (detail)

192.319(a) (192.319(b))

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

Design and Construction - Pressure Testing

3. General - Testing Requirements (detail) *Is pressure testing conducted in accordance with §192.503?*

(DC.PT.PRESSTEST.O) (detail)

192.503(a) (192.503(b); 192.503(c); 192.503(d))

Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

6. Strength Test Requirements for SMYS > 30%. (detail) *Is pressure testing conducted in accordance with §192.505? (DC.PT.PRESSTESTHIGHSTRESS.O) (detail)*

192.505(a) (192.505(b); 192.505(c); 192.505(d); 192.505(e))	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

Design and Construction - Training and Qualification

4. Skills and Knowledge of Personnel Performing Covered Tasks - Contractor employees (detail) *Do selected contractor individuals performing covered tasks demonstrate adequate skills and knowledge? (DC.TQ.OQCONTRACTOR.O) (detail)*

192.805(b) (Operators OQ program manual)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

6. Skills and Knowledge of Personnel Performing Covered Tasks - Operator Employee (detail) *Do selected operator individuals performing covered tasks demonstrate adequate skills and knowledge? (DC.TQ.OQPLANEMPLOYEE.O) (detail)*

192.805(b) (Operators OQ program manual)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

8. Qualification of Personnel who Oversee and Perform Excavations and Backfilling Operations (detail) *Do selected individuals who oversee marking, trenching and backfilling operations demonstrate adequate skills and knowledge? (DC.TQ.EXCAVATE.O) (detail)*

192.805(b) (ADB-06-01)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

10. Qualification of Personnel Performing Hot Taps (detail) *Do personnel performing hot taps demonstrate adequate skills and knowledge? (DC.TQ.HOTTAP.O) (detail)*

192.805(b) (192.627)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

Integrity Management - High Consequence Areas

8. IM High Consequence Areas - Identification Method 1 (Class Locations) (detail) Do records indicate adequate application of the §192.903 High Consequence Area definition (1) for the identification of HCAs? (IM.HC.HCAMETHOD1.R) (detail)

192.903 (1)(i) (192.903(1)(ii); 192.903(1)(iii); 192.903(1)(iv))	Sat+	Sat	Concern	Unsat	NA X	NC
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Notes
They used method 2

10. IM High Consequence Areas - Identification Method 2 (Potential Impact Radius) (detail) Do records indicate adequate application of §192.903 High Consequence Area definition (2) for identification of HCAs? (IM.HC.HCAMETHOD2.R) (detail)

192.903(2)(i) (192.903(2)(ii))	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

13. IM High Consequence Areas (detail) Are HCAs correctly identified per up-to-date information? (IM.HC.HCADATA.O) (detail)

192.905(c)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

Integrity Management - Preventive and Mitigative Measures

3. P&M Measures - Third Party Damage (detail) Does the preventive and mitigative process include requirements that threats due to third party damage be addressed? (Note: A subset of these enhancements are required for pipelines operating below 30% SMYS - See IM.PM.PMMTPDSMYS.P) (IM.PM.PMMTPD.P) (detail)

192.917(e)(1) (192.935(b)(1); 192.935(e))	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes
P&I inspectors are always on site when excavation is close to PSE's HP assets.

12. P&M Measures - Automatic Shut-Off Valves or Remote Control Valves (detail) Has an adequate determination been made to determine if automatic shut-off valves or remote control valves represent an efficient means of adding protection to potentially affected high consequence areas? (IM.PM.PMMASORCV.R) (detail)

192.935(c)	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

13. P&M Measures - Implementation (detail) *Have identified P&MMs to prevent a pipeline failure and to mitigate the consequences of a pipeline failure in an HCA been implemented? (IM.PM.PMMIMPLEMENT.O) (detail)*

192.935(a)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

Public Awareness and Damage Prevention - ROW Markers, Patrols, Leakage Survey and Monitoring

4. Placement of ROW Markers (detail) *Are line markers placed and maintained as required? (PD.RW.ROWMARKER.O) (detail)*

192.707(a) (CGA Best Practices, v4.0, Practice 2-5; CGA Best Practices, v4.0, Practice 4-20)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

5. Placement of ROW Markers (detail) *Are line markers placed and maintained as required for above ground pipelines? (PD.RW.ROWMARKERABOVE.O) (detail)*

192.707(c) (CGA Best Practices, v4.0, Practice 2-5; CGA Best Practices, v4.0, Practice 4-20)	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

6. ROW Conditions (detail) *Are the ROW conditions acceptable for the type of patrolling used? (PD.RW.ROWCONDITION.O) (detail)*

192.705(a) (192.705(c))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

Time-Dependent Threats - External Corrosion - Coatings

12. Exposed Pipe Coating (detail) *Is exposed buried pipe coating inspected to determine if it is deteriorating? (TD.COAT.EXPOSEINSPECT.O) (detail)*

192.459	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						
These are done as						

Training and Qualification - Qualification of Personnel - Specific Requirements (O and M Construction)

6. Qualification of Welders (detail) *Do welders demonstrate adequate skills and knowledge?*
(TQ.QUOMCONST.WELDER.O) (detail)

192.227(a) (192.227(b); 192.229(a); 192.229(b); 192.229(c); 192.229(d); 192.805(h); 192.807(a); 192.328(a); 192.328(b))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

9. Qualification of Nondestructive Testing Personnel (detail) *Do nondestructive testing personnel demonstrate adequate skills and knowledge?* (TQ.QUOMCONST.NDT.O) (detail)

192.243(b)(2) (192.807(a); 192.328(a); 192.328(b))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

Training and Qualification - Qualification of Personnel - Specific Requirements

5. Qualification of Personnel Tapping Pipelines under Pressure (detail) *Do personnel performing hot taps demonstrate adequate skills and knowledge?* (TQ.QU.HOTTAPQUAL.O) (detail)

192.627 (192.805(h))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

8. Qualification of Personnel who Oversee and Perform Excavations and Backfilling Operations (detail) *Do individuals who oversee marking, trenching, and backfilling operations demonstrate adequate skills and knowledge?* (TQ.QU.EXCAVATE.O) (detail)

192.805(b) (192.805(h); ADB-06-01; 192.801(a); 192.328(a); 192.328(c))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

Training and Qualification - Training of Personnel

3. Emergency Response Training (detail) *Do emergency response personnel demonstrate adequate skills and knowledge?* (TQ.TR.TRAINING.O) (detail)

192.615(b)(2) (192.805(b))	Sat+	Sat X	Concern	Unsat	NA	NC
Notes						

Training and Qualification - OQ Protocol 9

1. Covered Task Performance (detail) *Verify the qualified individuals performed the observed covered tasks in accordance with the operator's procedures or operator approved contractor procedures. (TQ.PROT9.TASKPERFORMANCE.O) (detail)*

192.801(a) (192.809(a))	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

2. Qualification Status (detail) *Verify the individuals performing the observed covered tasks are currently qualified to perform the covered tasks. (TQ.PROT9.QUALIFICATIONSTATUS.O) (detail)*

192.801(a) (192.809(a))	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

3. Abnormal Operating Condition Recognition and Reaction (detail) *Verify the individuals performing covered tasks are cognizant of the AOCs that are applicable to the tasks observed. (TQ.PROT9.AOCRECOG.O) (detail)*

192.801(a) (192.809(a))	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

4. Verification of Qualification (detail) *Verify the qualification records are current, and ensure the personal identification of all individuals performing covered tasks are checked, prior to task performance. (TQ.PROT9.VERIFYQUAL.O) (detail)*

192.801(a) (192.809(a))	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

5. Program Inspection Deficiencies (detail) *Have potential issues identified by the headquarters inspection process been corrected at the operational level? (TQ.PROT9.CORRECTION.O) (detail)*

192.801(a) (192.809(a))	Sat+	Sat X	Concern	Unsat	NA	NC
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Notes

Acceptable Use: Inspection documentation, including completed protocol forms, summary reports, executive summary reports, and enforcement documentation are for internal use only by federal or state pipeline safety regulators. Some inspection documentation may contain information which the operator considers to be confidential. In addition, supplemental inspection guidance and related documents in the file library are also for internal use only by federal or state pipeline safety regulators (with the exception of documents published in the federal register, such as advisory bulletins). Do not distribute or otherwise disclose such material outside of the state or federal pipeline regulatory organizations. Requests for such information from other government organizations (including, but not limited to, NTSB, GAO, IG, or Congressional Staff) should be referred to PHMSA Headquarters Management.