Inspection Output (IOR)

Generated on 2022.December.02 16:31

Report Filters

Assets All, and including items not linked to any asset.
Results All

Inspection Information

Inspection Name	PSE - Section 114 - GD - 8506	Operator(s)	PUGET SOUND ENERGY (22189)	Plan Submitted	10/21/2022
Status	PLANNED	Lead	David Cullom	Plan Approval	10/21/2022 by Scott Rukke
Start Year	2022	Director	Scott Rukke	All Activity Start	11/09/2022
System Type	GD			All Activity End	11/18/2022
Protocol Set ID	GD.2022.02			Inspection Submitted	--
				Inspection Approval	--

Inspection Summary

Inspection Scope and Summary

Pursuant to 49 U.S.C. 60108(a)(3), as amended by section 114(a) of the PIPES Act of 2020 (Section 114), PHMSA and state authorities with a certification under 49 U.S.C. 60105 will inspect operators' revised O&M plans in calendar year 2022. On 11/18/2022, staff from the Washington Utilities and Transportation Commission concluded a review of Puget Sound Energy's operation and maintenance plan compliance with Section 114 requirements.

Facilities visited and Total AFOD

This inspection consisted of a plan and procedure review. The GT,GD, and LNG portions totaled 4 AFODs and the Annual Review was also performed during the 114 inspection.

Summary of Significant Findings

No apparent violations were discovered during this inspection.

Primary Operator contacts and/or participants

Donald Frieze, Jace McMaster, Parker Indorf, Jennifer Kauhane, Cheryl McGrath, Cameron Williams, Justin Wahlborg, Yvonne Wang,

Operator executive contact and mailing address for any official correspondence

Dan Koch

VP of Operations

Puget Sound Energy

355 110th Ave NE, M/S EST 11W

Bellevue, WA, 98004

Scope (Assets)

#	Short Name	Long Name	Asset Type	Asset IDs	Excluded Topics	Planned	Required	Total Inspected	Required % Complete
1.	88984 (1829)	Puget Sound Energy-HEADQUARTERS	unit	88984	--	20	20	20	100.0%

1. Percent completion excludes unanswered questions planned as "always observe".

Plans

#	Plan Assets	Focus Directives	Involved Groups/Subgroups	Qst Type(s)	Extent	Notes
1.	88984 (1829)	--	114.GD	P, R, O, S	Detail	--

Plan Implementations

#	Activity Name	SMART Act#	Start Date End Date	Focus Directives	Involved Groups/Subgroups	Assets	Qst Type(s)	Planned	Required	Total Inspected	Required % Complete
1.	114 PSE GD	--	11/09/2022 11/18/2022	--	114	88984 (1829)	all types	20	20	20	100.0%

1. Since questions may be implemented in multiple activities, but answered only once, questions may be represented more than once in this table.
2. Percent completion excludes unanswered questions planned as "always observe".

Forms

No.	Entity	Form Name	Status	Date Completed	Activity Name	Asset
1.	Attendance List	114 PSE GD	COMPLETED	12/02/2022	114 PSE GD	--

Results (all values, 20 results)

40 (instead of 20) results are listed due to re-presentation of questions in more than one sub-group.

114.GD: Section 114 - Gas Distribution

1. Question Result, ID, References: NIC, SRN.114.INSPECTCVRG.S, (also presented in: 114.MM)

Question Text: *What are your assets comprised of?*

Assets Covered: 88984 (1829)

Result Notes: PSEs system is about 50% main and 50% services and they are continuing to add new mains and services while replacing and monitoring legacy piping systems by managing those system threats through DIMP, TIMP, PA, and DP. Third party damage is still the biggest threat to PSE's system, but the operator is also upgrading the infrastructure under the PRP and performing other tasks like crossbore inspection for sewers to reduce the number of leaks in the system.

Year	Operator	SYSTEM TOTAL Miles of Main	Miles of Service	SYSTEM TOTAL NO. of Services	Average Service Length
2021	Puget Sound Energy	**13,017.13**	13,469.34	836,684	85

2. Question Result, ID, References: NIC, SRN.114.GASTRANSPORT.S, (also presented in: 114.MM)

Report Filters: Results: all

Question Text *Do you transport natural gas as a specific commodity (i.e., not a byproduct or constituent of another substance)?*

Assets Covered 88984 (1829)

Result Notes Yes

3. Question Result, ID, References NA, SRN.114.DRIVERENGINE.S, (also presented in: 114.MM)

Question Text *Do you use natural gas-fueled drivers or engines to compress natural gas?*

Assets Covered 88984 (1829)

Result Notes No such relevant facilities/equipment existed in the scope of inspection review. Jackson Prairie has compressors, but none on the intrastate side.

4. Question Result, ID, References NIC, SRN.114.NGUSE.S, (also presented in: 114.MM)

Question Text *Do you use natural gas for fuel or power appurtenances or instrument gas on regulated facilities?*

Assets Covered 88984 (1829)

Result Notes Sumas has a control valve and the YZ injectors (about 15) The LNG plant uses nitrogen. PSE been using electric pumps for new equipment. Gas fired heaters are used as well

5. Question Result, ID, References Sat, 114.114.LKRLSID.P, 49 U.S.C. 60108(a) (also presented in: 114.MM)

Question Text *Do procedures provide a methodology for identifying sources of fugitive natural gas emissions in the system?*

Assets Covered 88984 (1829)

Result Notes This is covered under GOS 2625.1100. (Leak survey) GOS 2526.1300 (Leakage action program) PSE and LDCs report leakage

6. Question Result, ID, References Sat, 114.114.LKRLSVENT.P, 49 U.S.C. 60108(a) (also presented in: 114.MM)

Question Text *Do procedures identify measures for minimizing natural gas release volumes associated with non-emergency venting and blowdowns from operations and maintenance?*

Assets Covered 88984 (1829)

Result Notes PSE uses stopple by-passes Repairing steel pipelines 2575.1700. Squeezing PE eliminates the need for blowdowns.

7. Question Result, ID, References Sat, 114.114.LKRLSUNEXPCTVENT.P, 49 U.S.C. 60108(a) (also presented in: 114.MM)

Question Text *Do procedures provide for investigation of any unanticipated vented releases of natural gas, and if so, what are the associated actions?*

Assets Covered 88984 (1829)

Result Notes Typically as with this and the question (14) about "Do relief valve testing procedures include measures to minimize natural gas releases?" The practice of blowing down or venting more than is necessary after downstream draw down is not done for several reasons:

- The loss of gas that has been already purchased
- Odor calls are not desirable
- Prevention of accidental ignition.

There are others, but these are just a few examples

Supply Main Shutdowns 2575.1400 Section 4.1.7 A caution to prevent accidental gas ignition when blowing down, venting, or purging facilities. Refer to Operating Standard 2525.3400 and Field Procedure 4700.1500;

8. Question Result, ID, References Sat, 114.114.LKRLSLKDATA.P, 49 U.S.C. 60108(a) (also presented in: 114.MM)

Question Text *Do procedures include a methodology to collect, retain and analyze detailed information from detected natural gas leaks, including those eliminated by lubrication, adjustment, tightening or otherwise below thresholds for regulatory reporting?*

Assets Covered 88984 (1829)

Result Notes Leakage Reduction Sections

GOS 2625.1100 Leakage Survey Program

GOS 2625.1200 Conducting Leakage Surveys

GOS 2625.1300 Leakage Action Program

Leak survey self audits, grading methods, and material failure analysis is reviewed every standard inspection with PSE and leakage performance is tracked in DIMP compliance A&AA reviews.

All below ground leaks are tracked. Non-hazardous leaks above ground are tracked, but with variables. These are stored in the leak survey results.

The leak grading procedures are in GOS 2625.1300.

9. Question Result, ID, References: Sat, 114.114.LKRLSDETECTLK.P, 49 U.S.C. 60108(a) (also presented in: 114.MM)

Question Text: *Do procedures include instructions for personnel to detect leaks to help further reduce emission in stations and along the right of way?*

Assets Covered: 88984 (1829)

Result Notes: GOS 4700.1600 is the procedure for inspecting regulator stations. Vaults, stations, and ROW is leak surveyed during the annual or 3-year inspections.

10. Question Result, ID, References: Sat, 114.114.LKRLSIDMITRPR.P, 49 U.S.C. 60108(a) (also presented in: 114.MM)

Question Text: *Do procedures define a process to identify, classify, mitigate and repair leaks?*

Assets Covered: 88984 (1829)

Result Notes: All below ground leaks are tracked. For non-hazardous leaks above ground are tracked, but with different variables. These are stored in the leak survey results. The leak grading procedures are in GOS 2625.1300.

11. Question Result, ID, References: Sat, 114.114.LKMITRPRLAUF.P, 49 U.S.C. 60108(a) (also presented in: 114.MM)

Question Text: *Do procedures provide for review of Lost & Unaccounted for Gas (LAUF) and do procedures specify actions to reduce the associated volume?*

Assets Covered: 88984 (1829)

Result Notes: GOS 2425.1100 Section 14.4

14.4 The report shall include the following detailed information for each leak:

14.4.1 The approximate date and location of each leak;

14.4.2 Whether the leak was discovered during the routine course of system inspection;

14.4.3 Whether each leak was repaired as part of a Pipe Replacement Program;

14.4.4 The identified cause of each leak according to the causes listed in Sections 14.2.1 to 14.2.7 of this Operating Standard; and,

14.4.5 The estimated lost gas for each leak, expressed in terms of the following:

14.4.5.1 The estimated lost gas volume for the leak in standard cubic feet of gas;

14.4.5.2 The estimated lost gas in terms of the carbon dioxide equivalent; and,

14.4.5.3 The estimated lost gas in terms of the market value of the lost product.

DIMP - GOS 2425.2600 Section 4.6.4 (Leaks eliminated by cause- this information is used in the DIMP) to add A&AAs if needed.

12. Question Result, ID, References: Sat, 114.114.REGSTATIONOM.P, 49 U.S.C. 60108(a) (also presented in: 114.MM)

Question Text *Do maintenance or operational procedures contain measures for reduction of natural gas releases from regulators?*

Assets Covered 88984 (1829)

Result Notes GOS 2550.1800 3.3.1 Regulators must be accessible

GOS 2550.1800 3.10 Each meter and service regulator must be installed in a readily accessible location and be protected from corrosion and other damage, including, if installed outside a building, vehicular damage that may be anticipated.

13. Question Result, ID, References Sat, 114.114.REGSTATIONCONFIG.P, 49 U.S.C. 60108(a) (also presented in: 114.MM)

Question Text *Do maintenance or operational procedures contain measures for identifying potential configuration changes that would reduce natural gas releases from regulators?*

Assets Covered 88984 (1829)

Result Notes GOS 2550.1000 Section 5.3.x An RTU is an option the operator can use rather than employing a token relief.

14. Question Result, ID, References Sat, 114.114.TESTRELIEFVLV.P, 49 U.S.C. 60108(a) (also presented in: 114.MM)

Question Text *Do relief valve testing procedures include measures to minimize natural gas releases?*

Assets Covered 88984 (1829)

Result Notes The operator performs relief testing by isolating that section of pipe.

GOS 4700.1620 specifies using compressed nitrogen.

They close the portion of pipe directly next to the relief.

The relief valve is only operated until the pilot strokes and the main element briefly lifts to minimize gas loss and particle intrusion.

15. Question Result, ID, References Sat, 114.114.FLARE.P, 49 U.S.C. 60108(a) (also presented in: 114.MM)

Question Text *Do procedures for flaring from pipeline facilities for transporting natural gas include measures for minimization of natural gas emissions?*

Assets Covered 88984 (1829)

Result Notes Flares are used at gates to burn off odorants. Engineering has a flare safety sheet which is job specific. (Storing and Handling Odorant and Filling Odorizers GOS 2650.1300)

16. Question Result, ID, References Sat, 114.114.GNLDSGNCNFG.P, 49 U.S.C. 60108(a) (also presented in: 114.MM)

Question Text *Do operation and maintenance procedures contain mechanisms for identifying potential design/configuration changes for reducing natural gas releases?*

Assets Covered 88984 (1829)

Result Notes The standard is GOS 2525.1700. Section 7.6 addresses cover and the separation. GOS 2525.2800. (12" from the carrier pipe designed for external loading)

17. Question Result, ID, References Sat, 114.LEAKPRONE.LKRLS.P, 49 U.S.C. 60108(a) (also presented in: 114.MM)

Question Text *What procedures are in place to monitor for and identify pipe segments that are leak-prone, and what criteria (e.g., frequency of leak or failure events) are specified for determining a pipeline segment is leak-prone?*

Assets Covered 88984 (1829)

Result Notes This is largely managed within the DIMP plan and the associated leak prone components are identified in the A&AAs portion.

On the distribution system, there is an extensive pipe replacement program. The bare steel replacement program has been completed, cast iron has been replaced, Dupont HD is being phased out, bolt on tees removed when found along with the Celcon caps. Some wrapped steel replacement. No leak prone transmission segments. ILI assessments are conducted on the transmission side. Most of the distribution system pipe is non-piggble and DCVG is the primary technology to identify these areas that may become a leak risk.

18. Question Result, ID, References: Sat, 114.LEAKPRONE.LKRLSLKDATA.P, 49 U.S.C. 60108(a) (also presented in: 114.MM)

Question Text: *Do procedures include a methodology to collect, retain and analyze detailed information from detected leaks, including those eliminated by lubrication, adjustment, tightening or otherwise below thresholds for regulatory reporting?*

Assets Covered: 88984 (1829)

Result Notes: All below ground leaks are tracked. Non-hazardous leaks above ground are tracked, but with different variables or information collected. These are stored in the leak survey results. The leak grading procedures are in GOS 2625.1300

19. Question Result, ID, References: Sat, 114.LEAKPRONE.LKMITGRPREXAMPLE.P, 49 U.S.C. 60108(a) (also presented in: 114.MM)

Question Text: *Do procedures identify cast iron, unprotected steel, wrought iron, and vintage plastic pipe with known leak issues?*

Assets Covered: 88984 (1829)

Result Notes: Yes, This is the purpose of the DIMP, with the PRP, and the A&AAs

20. Question Result, ID, References: Sat, 114.LEAKPRONE.LKMITGRPROTHER.P, 49 U.S.C. 60108(a) (also presented in: 114.MM)

Question Text: *Do procedures clearly define a process to address replacement or remediation of pipe segments with known leak issues beyond those specifically identified in Section 114?*

Assets Covered: 88984 (1829)

Result Notes: On the distribution system, there is an extensive replacement program under the DIMP PRP. There is a bare steel replacement program, cast iron has been replaced, and Dupont pipe replacement. Some wrapped steel replacement is also occurring.

114.MM: Section 114 - Master Meter

21. Question Result, ID, References: NIC, SRN.114.INSPECTCVRG.S, (also presented in: 114.GD)

Question Text: *What are your assets comprised of?*

Assets Covered: 88984 (1829)

Result Notes: PSEs system is about 50% main and 50% services and they are continuing to add new mains and services while replacing an monitoring legacy piping systems by managing those system threats through DIMP, TIMP, PA, and DP. Third party damage is still the biggest threat to PSE's system, but they are also upgrading the infrastructure under the PRP and performing other tasks like crossbore inspection for sewers to reduce the number of leaks in the system.

Year	Operator	SYSTEM TOTAL Miles of Main	Miles of Service	SYSTEM TOTAL NO. of Services	Average Service Length
2021	Puget Sound Energy	**13,017.13**	13,469.34	836,684	85

22. Question Result, ID, References: NIC, SRN.114.GASTRANSPORT.S, (also presented in: 114.GD)

Question Text: *Do you transport natural gas as a specific commodity (i.e., not a byproduct or constituent of another substance)?*

Assets Covered: 88984 (1829)

Result Notes: Yes

23. Question Result, ID, References: NA, SRN.114.DRIVERENGINE.S, (also presented in: 114.GD)

Question Text: *Do you use natural gas-fueled drivers or engines to compress natural gas?*

Assets Covered: 88984 (1829)

Result Notes: No such relevant facilities/equipment existed in the scope of inspection review. Jackson Prairie has compressors, but none on the intrastate side.

24. Question Result, ID, References: NIC, SRN.114.NGUSE.S, (also presented in: 114.GD)

Question Text: *Do you use natural gas for fuel or power appurtenances or instrument gas on regulated facilities?*

Assets Covered: 88984 (1829)

Result Notes Sumas has a control valve and the YZ injectors (about 15) The LNG plant uses nitrogen. PSE been using electric pumps for new equipment. Gas fired heaters are used as well

25. Question Result, ID, References Sat, 114.114.LKRLSID.P, 49 U.S.C. 60108(a) (also presented in: 114.GD)

Question Text *Do procedures provide a methodology for identifying sources of fugitive natural gas emissions in the system?*

Assets Covered 88984 (1829)

Result Notes This is covered under GOS 2625.1100. (Leak survey) GOS 2526.1300 (Leakage action program) PSE and LDCs report leakage

26. Question Result, ID, References Sat, 114.114.LKRLSVENT.P, 49 U.S.C. 60108(a) (also presented in: 114.GD)

Question Text *Do procedures identify measures for minimizing natural gas release volumes associated with non-emergency venting and blowdowns from operations and maintenance?*

Assets Covered 88984 (1829)

Result Notes PSE uses stopple by-passes Repairing steel pipelines 2575.1700. Squeezing PE eliminates the need for blowdowns.

27. Question Result, ID, References Sat, 114.114.LKRLSUNEXPCTVENT.P, 49 U.S.C. 60108(a) (also presented in: 114.GD)

Question Text *Do procedures provide for investigation of any unanticipated vented releases of natural gas, and if so, what are the associated actions?*

Assets Covered 88984 (1829)

Result Notes Typically as with this and the question (14) about "Do relief valve testing procedures include measures to minimize natural gas releases?" The practice of blowing down or venting more than is necessary after downstream draw down is not done for several reasons:

- The loss of gas that has been already purchased
- Odor calls are not desirable
- Prevention of accidental ignition.

There are others, but these are just a few examples

Supply Main Shutdowns 2575.1400 Section 4.1.7 A caution to prevent accidental gas ignition when blowing down, venting, or purging facilities. Refer to Operating Standard 2525.3400 and Field Procedure 4700.1500;

28. Question Result, ID, References Sat, 114.114.LKRLSLKDATA.P, 49 U.S.C. 60108(a) (also presented in: 114.GD)

Question Text *Do procedures include a methodology to collect, retain and analyze detailed information from detected natural gas leaks, including those eliminated by lubrication, adjustment, tightening or otherwise below thresholds for regulatory reporting?*

Assets Covered 88984 (1829)

Result Notes Leakage Reduction Sections

GOS 2625.1100 Leakage Survey Program

GOS 2625.1200 Conducting Leakage Surveys

GOS 2625.1300 Leakage Action Program

Leak survey self audits, grading methods, and material failure analysis is reviewed every standard inspection with PSE and leakage performance is tracked in DIMP compliance A&AA reviews.

All below ground leaks are tracked. Non-hazardous leaks above ground are tracked, but with variables. These are stored in the leak survey results.

The leak grading procedures are in GOS 2625.1300.

29. Question Result, ID, References Sat, 114.114.LKRLSDETECTLK.P, 49 U.S.C. 60108(a) (also presented in: 114.GD)

Question Text *Do procedures include instructions for personnel to detect leaks to help further reduce emission in stations and along the right of way?*

Assets Covered 88984 (1829)

Result Notes GOS 4700.1600 is the procedure for inspecting regulator stations. Vaults, stations, and ROW is leak surveyed during the annual or 3 year inspections.

30. Question Result, ID, References Sat, 114.114.LKRLSIDMITRPR.P, 49 U.S.C. 60108(a) (also presented in: 114.GD)

Question Text *Do procedures define a process to identify, classify, mitigate and repair leaks?*

Assets Covered 88984 (1829)

Result Notes All below ground leaks are tracked. Non-hazardous leaks above ground are tracked, but with different variables. These are stored in the leak survey results. The leak grading procedures are in GOS 2625.1300.

31. Question Result, ID, References Sat, 114.114.LKMITRPRLAUF.P, 49 U.S.C. 60108(a) (also presented in: 114.GD)

Question Text *Do procedures provide for review of Lost & Unaccounted for Gas (LAUF) and do procedures specify actions to reduce the associated volume?*

Assets Covered 88984 (1829)

Result Notes GOS 2425.1100 Section 14.4

14.4 The report shall include the following detailed information for each leak:

14.4.1 The approximate date and location of each leak;

14.4.2 Whether the leak was discovered during the routine course of system inspection;

14.4.3 Whether each leak was repaired as part of a Pipe Replacement Program;

14.4.4 The identified cause of each leak according to the causes listed in Sections 14.2.1 to 14.2.7 of this Operating Standard; and,

14.4.5 The estimated lost gas for each leak, expressed in terms of the following:

14.4.5.1 The estimated lost gas volume for the leak in standard cubic feet of gas;

14.4.5.2 The estimated lost gas in terms of the carbon dioxide equivalent; and,

14.4.5.3 The estimated lost gas in terms of the market value of the lost product.

DIMP - GOS 2425.2600 Section 4.6.4 (Leaks eliminated by cause- this information is used in the DIMP) to add A&AAs if needed.

32. Question Result, ID, References Sat, 114.114.REGSTATIONOM.P, 49 U.S.C. 60108(a) (also presented in: 114.GD)

Question Text *Do maintenance or operational procedures contain measures for reduction of natural gas releases from regulators?*

Assets Covered 88984 (1829)

Result Notes GOS 2550.1800 3.3.1 Regulators must be accessible

GOS 2550.1800 3.10 Each meter and service regulator must be installed in a readily accessible location and be protected from corrosion and other damage, including, if installed outside a building, vehicular damage that may be anticipated.

33. Question Result, ID, References Sat, 114.114.REGSTATIONCONFIG.P, 49 U.S.C. 60108(a) (also presented in: 114.GD)

Question Text *Do maintenance or operational procedures contain measures for identifying potential configuration changes that would reduce natural gas releases from regulators?*

Assets Covered 88984 (1829)

Result Notes GOS 2550.1000 Section 5.3.x An RTU is an option the operator can use rather than employing a token relief.

34. Question Result, ID, References Sat, 114.114.TESTRELIEFVLV.P, 49 U.S.C. 60108(a) (also presented in: 114.GD)

Question Text *Do relief valve testing procedures include measures to minimize natural gas releases?*

Assets Covered 88984 (1829)

Result Notes The operator performs relief testing by isolating that section of pipe.

GOS 4700.1620 specifies using compressed nitrogen.

They close the portion of pipe directly next to the relief.

he relief valve is only operated until the pilot strokes and the main element briefly lifts to minimize gas loss and particle intrusion.

35. Question Result, ID, References Sat, 114.114.FLARE.P, 49 U.S.C. 60108(a) (also presented in: 114.GD)

Question Text *Do procedures for flaring from pipeline facilities for transporting natural gas include measures for minimization of natural gas emissions?*

Assets Covered 88984 (1829)

Result Notes Flares are used at gates to burn off odorants. Engineering has a flare safety sheet which is job specific. (Storing and Handling Odorant and Filling Odorizers GOS 2650.1300)

36. Question Result, ID, References Sat, 114.114.GNLDSGNCNFG.P, 49 U.S.C. 60108(a) (also presented in: 114.GD)

Question Text *Do operation and maintenance procedures contain mechanisms for identifying potential design/configuration changes for reducing natural gas releases?*

Assets Covered 88984 (1829)

Result Notes The standard is GOS 2525.1700. Section 7.6 addresses cover and the separation. GOS 2525.2800. (12" from the carrier pipe designed for external loading)

37. Question Result, ID, References Sat, 114.LEAKPRONE.LKRLS.P, 49 U.S.C. 60108(a) (also presented in: 114.GD)

Question Text *What procedures are in place to monitor for and identify pipe segments that are leak-prone, and what criteria (e.g., frequency of leak or failure events) are specified for determining a pipeline segment is leak-prone?*

Assets Covered 88984 (1829)

Result Notes This is largely managed within the DIMP plan and the associated leak prone components are identified in the A&AAs portion.

On the distribution system, there is an extensive pipe replacement program. The bare steel replacement program has been completed, cast iron has been replaced, Dupont HD is being phased out, bolt on tees removed when found along with the Celcon caps. Some wrapped steel replacement. No leak prone transmission segments. ILI assesments are conducted on the transmission side. Most of the distribution system pipe is non piggble and DCVG is the primary technology to identify these areas that may become a leak risk.

38. Question Result, ID, References Sat, 114.LEAKPRONE.LKRLSLKDATA.P, 49 U.S.C. 60108(a) (also presented in: 114.GD)

Question Text *Do procedures include a methodology to collect, retain and analyze detailed information from detected leaks, including those eliminated by lubrication, adjustment, tightening or otherwise below thresholds for regulatory reporting?*

Assets Covered 88984 (1829)

Result Notes All below ground leaks are tracked. Non-hazardous leaks above ground are tracked, but with different variables or information collected. These are stored in the leak survey results. The leak grading procedures are in GOS 2625.1300

39. Question Result, ID, References Sat, 114.LEAKPRONE.LKMITGRPREXAMPLE.P, 49 U.S.C. 60108(a) (also presented in: 114.GD)

Question Text *Do procedures identify cast iron, unprotected steel, wrought iron, and vintage plastic pipe with known leak issues?*

Assets Covered 88984 (1829)

Result Notes Yes, this is the purpose of the DIMP, with the PRP, and the A&AAs

40. Question Result, ID, References Sat, 114.LEAKPRONE.LKMITGRPROTHER.P, 49 U.S.C. 60108(a) (also presented in: 114.GD)

Question Text *Do procedures clearly define a process to address replacement or remediation of pipe segments with known leak issues beyond those specifically identified in Section 114?*

Assets Covered 88984 (1829)

Result Notes On the distribution system there is an extensive replacement program under the DIMP PRP. There is a bare steel replacement program, cast iron has been replaced, and Dupont pipe replacement. Some wrapped steel replacement is also occurring.

Inspection Output (IOR)

Generated on 2022.December.02 16:39

Report Filters

Assets All, and including items not linked to any asset.
Results All

Inspection Information

Inspection Name	PSE Section 114 - GT - 8506	Operator(s)	PUGET SOUND ENERGY (22189)	Plan Submitted	11/03/2022
Status	PLANNED	Lead	David Cullom	Plan Approval	11/04/2022 by Scott Rukke
Start Year	2022	Team Members	David Hippchen	All Activity Start	11/08/2022
System Type	GT	Director	Scott Rukke	All Activity End	11/18/2022
Protocol Set ID	GT.2022.04			Inspection Submitted	--
				Inspection Approval	--

Inspection Summary

Inspection Scope and Summary

Pursuant to 49 U.S.C. 60108(a)(3), as amended by section 114(a) of the PIPES Act of 2020 (Section 114), PHMSA and state authorities with a certification under 49 U.S.C. 60105 will inspect operators' revised O&M plans in calendar year 2022. On 11/18/2022, staff from the Washington Utilities and Transportation Commission concluded a review of Puget Sound Energy's operation and maintenance plan compliance with Section 114 requirements. PHMSA conducted the interstate UNGS portion for Jackson Prairie.

Facilities visited and Total AFOD

This inspection consisted of a plan and procedure review. The GT, GD, and LNG portions totaled 4 AFODs and the Annual Review was also performed during the 114 inspections.

Summary of Significant Findings

No apparent violations were discovered during this inspection.

Primary Operator contacts and/or participants

Pat Haworth, Ariana Mayorga, Mark Anders, Charles Lantau, Carrie Keating, Andy Whitaker, Cameron Williams, Justin Wahlborg, Yvonne Wang

Operator executive contact and mailing address for any official correspondence

Dan Koch

VP of Operations

Puget Sound Energy

355 110th Ave NE, M/S EST 11W

Bellevue, WA, 98004

Scope (Assets)

#	Short Name	Long Name	Asset Type	Asset IDs	Excluded Topics	Planned	Required	Total Inspected	Required % Complete
1.	88986 (1878)	Puget Sound Energy-TRANSMISSION	unit	88986	--	24	24	24	100.0%

1. *Percent completion excludes unanswered questions planned as "always observe".*

Plans

#	Plan Assets	Focus Directives	Involved Groups/Subgroups	Qst Type(s)	Extent	Notes
1.	88986 (1878)	--	114.GT	P, R, O, S	Detail	--
2.	88986 (1878)	--	114.114.LKRLSWELLHD.P	P, R, O, S	Detail	--
3.	88986 (1878)	--	114.114.LKRLSANN.P	P, R, O, S	Detail	--
4.	88986 (1878)	--	114.114.LKRLSFIELD.P	P, R, O, S	Detail	--

Plan Implementations

#	Activity Name	SMART Act#	Start Date End Date	Focus Directives	Involved Groups/Subgroups	Assets	Qst Type(s)	Planned	Required	Total Inspected	Required % Complete
1.	Section 114	--	11/08/2022 11/18/2022	--	114	all assets	all types	24	24	24	100.0%

1. *Since questions may be implemented in multiple activities, but answered only once, questions may be represented more than once in this table.*
2. *Percent completion excludes unanswered questions planned as "always observe".*

Forms

This inspection has no Form data entry.

Results (all values, 24 results)

58 (instead of 24) results are listed due to re-presentation of questions in more than one sub-group.

114.GT: Section 114 - Gas Transmission

1. Question Result, ID, References: NIC, SRN.114.INSPECTCVRG.S, (also presented in: 114.UNGS, 114.GGBOOST)

Question Text: *What are your assets comprised of?*

Assets Covered: 88986 (1878)

Result Notes: Total transmission mileage is 27.035. Cedar Hills is .263 miles long. The remaining mileage is non-RNG transmission.

- Unit 74999: WUTC – Sumas Gas Pipeline

Unit 74999 is a pipeline that carries gas from the US/Canada border into northern Washington near Sumas. This unit has no compressor stations, and no storage fields.

- Unit 33875: WA – UTC/Jackson Prairie Storage Facility

Unit 33875 is an underground natural gas storage facility used at times of peak demand. It is located in Jackson Prairie, Washington which is 100 miles south of Seattle. This unit has one compressor station and two storage fields.

2. Question Result, ID, References: NIC, SRN.114.GASTRANSPORT.S, (also presented in: 114.UNGS, 114.GGBOOST)

Question Text: *Do you transport natural gas as a specific commodity (i.e., not a byproduct or constituent of another substance)?*

Assets Covered: 88986 (1878)

Result Notes: Natural gas is transported as a specific commodity.

3. Question Result, ID, References: NA, SRN.114.DRIVERENGINE.S, (also presented in: 114.UNGS, 114.GGBOOST)

Question Text: *Do you use natural gas-fueled drivers or engines to compress natural gas?*

Assets Covered: 88986 (1878)

Result Notes: No such requirement existed in the scope of inspection review. Only ones are at JP.

4. Question Result, ID, References: NIC, SRN.114.NGUSE.S, (also presented in: 114.UNGS, 114.GGBOOST)

Question Text: *Do you use natural gas for fuel or power appurtenances or instrument gas on regulated facilities?*

Assets Covered: 88986 (1878)

Result Notes: Sumas has a control valve and the YZ injectors (about 15) The LNG plant uses nitrogen. PSE been using electric pumps for new equipment. Gas fired heaters are also utilized.

5. Question Result, ID, References: Sat, 114.114.COMPRESSOR.P, 49 U.S.C. 60108(a) (also presented in: 114.UNGS, 114.GGBOOST)

Question Text: *Do the maintenance and operations procedures for compressors include provisions to minimize fugitive natural gas losses?*

Assets Covered: 88986 (1878)

Result Notes: There are 8 turbine compressors. There are two electric powered compressors. Two natural gas fueled recips and there is a Cat 6 cylinder. The Tauruses have dry seals. There are 6 turbines that have wet seals and they must be blown down during shutdown. Starting and shut down is coordinated through a best operating practice.

6. Question Result, ID, References: Sat, 114.114.DRIVERENGINE.P, 49 U.S.C. 60108(a) (also presented in: 114.UNGS, 114.GGBOOST)

Question Text: *Do maintenance procedures include measures for monitoring and correcting incomplete combustion of natural gas in driver or engine exhausts and taking corrective action if identified?*

Assets Covered: 88986 (1878)

Result Notes: The air permit that they operate under keeps the emissions under a third of what is allowable. The operator performs routine testing from annually to 7 years. These tests are performed by a third-party contractor. This is scheduled and monitored through the SWCAA process. The environmental group within PSE tracks this in Archer.

7. Question Result, ID, References: Sat, 114.114.LKRLSID.P, 49 U.S.C. 60108(a) (also presented in: 114.GGBOOST)

Question Text: *Do procedures provide a methodology for identifying sources of fugitive natural gas emissions in the system?*

Assets Covered: 88986 (1878)

Result Notes: This is covered under GOS 2625.1100. (Leak survey) The following covers storage facility piping:GOS 2526.1300 (Leakage action program)

8. Question Result, ID, References: Sat, 114.114.LKRLSVENT.P, 49 U.S.C. 60108(a) (also presented in: 114.UNGS, 114.GGBOOST)

Question Text: *Do procedures identify measures for minimizing natural gas release volumes associated with non-emergency venting and blowdowns from operations and maintenance?*

Assets Covered: 88986 (1878)

Result Notes: This question was asked for the UNGS questions. The water separators are vented for normal maintenance and they do vent well 914, monitor, and measure it.

9. Question Result, ID, References: Sat, 114.114.LKRLSUNEXPCTVENT.P, 49 U.S.C. 60108(a) (also presented in: 114.UNGS, 114.GGBOOST)

Question Text *Do procedures provide for investigation of any unanticipated vented releases of natural gas, and if so, what are the associated actions?*

Assets Covered 88986 (1878)

Result Notes Occasionally, the water separator dump valve will stick open at a well head. ERP 2.3.2.2

10. Question Result, ID, References Sat, 114.114.LKRLSLKDATA.P, 49 U.S.C. 60108(a) (also presented in: 114.UNGS, 114.GGBOOST)

Question Text *Do procedures include a methodology to collect, retain and analyze detailed information from detected natural gas leaks, including those eliminated by lubrication, adjustment, tightening or otherwise below thresholds for regulatory reporting?*

Assets Covered 88986 (1878)

Result Notes Department of Ecology requires monitoring, and the operator performs a FLIR study and monitors it more closely than they did in the past. The data is fed back to the WA Department of Ecology. Gas loss is collected from all leak sources. If it is not 3rd party damage, it is analyzed. The operator has eliminated bolt-on tees from new installations and when found.

11. Question Result, ID, References Sat, 114.114.LKRLSDETECTLK.P, 49 U.S.C. 60108(a)

Question Text *Do procedures include instructions for personnel to detect leaks to help further reduce emission in stations and along the right of way?*

Assets Covered 88986 (1878)

Result Notes 4700.1600 is the procedure for inspecting regulator stations. Vaults, stations, and ROW is leak surveyed during the annual or 3-year inspections.

12. Question Result, ID, References Sat, 114.114.LKMITGRPRREPAIR.P, 49 U.S.C. 60108(a)

Question Text *Do procedures provide alternatives to cutouts (to reduce emissions)?*

Assets Covered 88986 (1878)

Result Notes PSE uses stopple by-passes. Repairing steel pipelines 2575.1700. Squeezing PE eliminates the need for blowdowns.

13. Question Result, ID, References Sat, 114.114.TESTESD.P, 49 U.S.C. 60108(a) (also presented in: 114.GGBOOST)

Question Text *Do procedures contain measures for ensuring ESD testing minimizes natural gas releases?*

Assets Covered 88986 (1878)

Result Notes No ESDs in distribution or intrastate transmission. Only JP and Tacoma LNG.

14. Question Result, ID, References Sat, 114.114.TESTRELIEFVLV.P, 49 U.S.C. 60108(a) (also presented in: 114.UNGS, 114.GGBOOST)

Question Text *Do relief valve testing procedures include measures to minimize natural gas releases?*

Assets Covered 88986 (1878)

Result Notes The operator performs relief testing by isolating the section of carrier pipe to be the shortest possible. GOS 4700.1620 specifies using compressed nitrogen. The relief valve is only tested with a blocked in portion of carrier pipe using a small volume of gas if Nitrogen is not used.

15. Question Result, ID, References Sat, 114.114.FLARE.P, 49 U.S.C. 60108(a) (also presented in: 114.GGBOOST)

Question Text *Do procedures for flaring from pipeline facilities for transporting natural gas include measures for minimization of natural gas emissions?*

Assets Covered 88986 (1878)

Result Notes There is a flare at the LNG system. There is an emissions monitoring system there. Flares are used at gates to burn off odorants. Engineering has a flare safety sheet which is job specific.

16. Question Result, ID, References Sat, 114.114.GNLDSGNCNFG.P, 49 U.S.C. 60108(a) (also presented in: 114.UNGS, 114.GGBOOST)

Question Text *Do operation and maintenance procedures contain mechanisms for identifying potential design/configuration changes for reducing natural gas releases?*

Assets Covered 88986 (1878)

Result Notes The standard is GOS 2525.1700. Section 7.6 addresses cover and the separation. GOS 2525.2800. (12" from the carrier pipe and designed for external loading)

17. Question Result, ID, References NA, 114.114.GNLCMPSTATION.P, 49 U.S.C. 60108(a) (also presented in: 114.GGBOOST)

Question Text *Do procedures contain mechanisms for minimizing natural gas emissions from operations and maintenance activities within a compressor station (i.e., beyond compressor/driver-specific procedures)?*

Assets Covered 88986 (1878)

Result Notes No such relevant facilities/equipment existed in the scope of inspection review. There are no recirculating or (Zevac) type systems to reinject. There are isolation valves.

18. Question Result, ID, References Sat, 114.LEAKPRONE.LKRLS.P, 49 U.S.C. 60108(a) (also presented in: 114.UNGS, 114.GGBOOST)

Question Text *What procedures are in place to monitor for and identify pipe segments that are leak-prone, and what criteria (e.g., frequency of leak or failure events) are specified for determining a pipeline segment is leak-prone?*

Assets Covered 88986 (1878)

Result Notes On the distribution system there has been an extensive replacement program of bare steel replacement, cast iron has been replaced, and Dupont HD. Some wrapped steel replacement. No leak-prone transmission segments. Most of the pipe is non-piggble and DCVG is employed.

19. Question Result, ID, References Sat, 114.LEAKPRONE.LKRLSLKDATA.P, 49 U.S.C. 60108(a) (also presented in: 114.UNGS, 114.GGBOOST)

Question Text *Do procedures include a methodology to collect, retain and analyze detailed information from detected leaks, including those eliminated by lubrication, adjustment, tightening or otherwise below thresholds for regulatory reporting?*

Assets Covered 88986 (1878)

Result Notes All below ground leaks are tracked. Non-hazardous leaks above ground are tracked, but with variables. These are stored in the leak survey results. The leak grading procedures are in 2625.1300.

20. Question Result, ID, References Sat, 114.LEAKPRONE.LKMITGRPREXAMPLE.P, 49 U.S.C. 60108(a) (also presented in: 114.UNGS, 114.GGBOOST)

Question Text *Do procedures identify cast iron, unprotected steel, wrought iron, and vintage plastic pipe with known leak issues?*

Assets Covered 88986 (1878)

Result Notes Replacement programs are in the DIMP program. Leak-prone pipe has been prioritized. The cast iron replacement was completed about 2006 or 2007.

21. Question Result, ID, References Sat, 114.LEAKPRONE.LKMITGRPROTHER.P, 49 U.S.C. 60108(a) (also presented in: 114.UNGS, 114.GGBOOST)

Question Text *Do procedures clearly define a process to address replacement or remediation of pipe segments with known leak issues beyond those specifically identified in Section 114?*

Assets Covered 88986 (1878)

Result Notes Celcon caps are removed when found. The Dupont HD is also a replacement program.

114.UNGS: Section 114 - Underground Natural Gas Storage

22. Question Result, ID, References NIC, SRN.114.INSPECTCVRG.S, (also presented in: 114.GT, 114.GGBOOST)

Question Text *What are your assets comprised of?*

Assets Covered 88986 (1878)

Result Notes Total transmission mileage is 27.035. Cedar Hills is .263 miles long. The remaining mileage is non-RNG transmission.

- Unit 74999: WUTC – Sumas Gas Pipeline

Unit 74999 is a pipeline that carries gas from the US/Canada border into northern Washington near Sumas. This unit has no compressor stations, and no storage fields.

- Unit 33875: WA – UTC/Jackson Prairie Storage Facility

Unit 33875 is an underground natural gas storage facility used at times of peak demand. It is located in Jackson Prairie, Washington which is 100 miles south of Seattle. This unit has one compressor station and two storage fields.

23. Question Result, ID, References: NIC, SRN.114.GASTRANSPORT.S, (also presented in: 114.GT, 114.GGBOOST)

Question Text: *Do you transport natural gas as a specific commodity (i.e., not a byproduct or constituent of another substance)?*

Assets Covered: 88986 (1878)

Result Notes: Natural gas is transported as a specific commodity.

24. Question Result, ID, References: NA, SRN.114.DRIVERENGINE.S, (also presented in: 114.GT, 114.GGBOOST)

Question Text: *Do you use natural gas-fueled drivers or engines to compress natural gas?*

Assets Covered: 88986 (1878)

Result Notes: No such requirement existed in the scope of inspection review. Only ones are at JP.

25. Question Result, ID, References: NIC, SRN.114.NGUSE.S, (also presented in: 114.GT, 114.GGBOOST)

Question Text: *Do you use natural gas for fuel or power appurtenances or instrument gas on regulated facilities?*

Assets Covered: 88986 (1878)

Result Notes: Sumas has a control valve and the YZ injectors (about 15) The LNG plant uses nitrogen. PSE been using electric pumps for new equipment. Gas fired heaters are used

26. Question Result, ID, References: Sat, 114.114.COMPRESSOR.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.GGBOOST)

Question Text: *Do the maintenance and operations procedures for compressors include provisions to minimize fugitive natural gas losses?*

Assets Covered: 88986 (1878)

Result Notes: There are 8 turbine compressors. There are two electric powered compressors. Two natural gas fueled recips and there is a Cat 6 cylinder. The Taurses have dry seals. There are 6 turbines that have wet seals and they must be blown down during shut down. Starting and shut down is coordinated through a best operating practice.

27. Question Result, ID, References: Sat, 114.114.DRIVERENGINE.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.GGBOOST)

Question Text: *Do maintenance procedures include measures for monitoring and correcting incomplete combustion of natural gas in driver or engine exhausts and taking corrective action if identified?*

Assets Covered: 88986 (1878)

Result Notes: The air permit that they operate under keeps the emissions under a third of what is allowable. The operator performs routine testing from 7 years to annual. These are performed by a third party contractor. This is scheduled and monitored through the SWCAA process. The environmental group within tracks this. Archer is used to track this.

28. Question Result, ID, References: Sat, 114.114.LKRLSVENT.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.GGBOOST)

Question Text: *Do procedures identify measures for minimizing natural gas release volumes associated with non-emergency venting and blowdowns from operations and maintenance?*

Assets Covered: 88986 (1878)

Result Notes: This question was asked for the UGSS questions. The water separators are vented for normal maintenance and they do vent well 914 and they monitor and measure it.

29. Question Result, ID, References: Sat, 114.114.LKRLSUNEXPCTVENT.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.GGBOOST)

Question Text: *Do procedures provide for investigation of any unanticipated vented releases of natural gas, and if so, what are the associated actions?*

Assets Covered: 88986 (1878)

Result Notes: Occasionally, the water separator dump valve will stick open at a well head. API 1171 ERP 2.3.2.2

30. Question Result, ID, References: Sat, 114.114.LKRLSLKDATA.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.GGBOOST)

Question Text: *Do procedures include a methodology to collect, retain and analyze detailed information from detected natural gas leaks, including those eliminated by lubrication, adjustment, tightening or otherwise below thresholds for regulatory reporting?*

Assets Covered: 88986 (1878)

Result Notes: Department of Ecology requires monitoring and the operator performs a FLIR study and monitors it more closely than they did in the past. The data is fed back to the WA Department of Ecology. Gas loss is

collected from all leak sources. If it is not 3rd party damage, it is analyzed. They eliminated bolt on tees.

31. Question Result, ID, References: Sat, 114.114.LKRLSWELLHD.P, 49 U.S.C. 60108(a)

Question Text: *Do procedures provide for periodic leakage surveys around the wellhead?*

Assets Covered: 88986 (1878)

Result Notes: Leakage survey for the well head. Question 10. Hippchen asked for the procedure. The well head visual inspection. The procedure is 16.1.3 The field lines are covered by the interstate leak surveys. JP manual last reviewed July 6, 2022. The operator also displayed the wellhead inspection procedure. The safety valve is close to the well head and is used if sand production occurs. The safety valves can be remotely or locally actuated. By remote they mean close to the well, not at the control room. There is a daily checklist for the wellhead that contains the requirements of what needs to be observed. An annual survey is performed. PSE is in the process of putting in 24hr continuing monitoring.

32. Question Result, ID, References: Sat, 114.114.LKRLSANN.P, 49 U.S.C. 60108(a)

Question Text: *Do procedures provide for periodic checking of wellhead annuluses for indications of leaks (e.g., unexplained pressure variations)?*

Assets Covered: 88986 (1878)

Result Notes: Hippchen asked to see the procedures to monitor annulus pressure or flow. Each week they review well pressures. This is in procedure 16.1.6 . Zone 9 has a well (914) that is venting and it is metered. The majority of the wells do not need to be blown down. 3-4 per week they are blown down. Well 914 never gets to 250 psi, but they blow it down when it goes above 50psig. < 25 mcf a year is being vented. It is set at 115psig for the flow control valve.

33. Question Result, ID, References: Sat, 114.114.LKRLSFIELD.P, 49 U.S.C. 60108(a)

Question Text: *Do procedures provide for leak surveys for well casing containment or geologic issues?*

Assets Covered: 88986 (1878)

Result Notes: Leaks and releases - field integrity. The operator is in the process of conducting leak surveys. Casing inspections have been done. All will be inspected this coming year. This is in JP procedure 16.5

34. Question Result, ID, References: Sat, 114.114.TESTRELIEFVLV.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.GGBOOST)

Question Text: *Do relief valve testing procedures include measures to minimize natural gas releases?*

Assets Covered: 88986 (1878)

Result Notes: The operator performs relief testing by isolating GOS 4700.1620 specify using compressed nitrogen. They close the portion of pipe directly. Relief valve is only tested with a blocked in small volume of gas if Nitrogen is not used.

35. Question Result, ID, References: Sat, 114.114.GNLDSGNCNFG.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.GGBOOST)

Question Text: *Do operation and maintenance procedures contain mechanisms for identifying potential design/configuration changes for reducing natural gas releases?*

Assets Covered: 88986 (1878)

Result Notes: The standard is GOS 2525.1700. Section 7.6 addresses cover and the separation. GOS 2525.2800. (12" from the carrier pipe designed for external loading)

36. Question Result, ID, References: Sat, 114.LEAKPRONE.LKRLS.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.GGBOOST)

Question Text: *What procedures are in place to monitor for and identify pipe segments that are leak-prone, and what criteria (e.g., frequency of leak or failure events) are specified for determining a pipeline segment is leak-prone?*

Assets Covered: 88986 (1878)

Result Notes: On distribution extensive replacement program. Bare steel replacement program, cast iron has been replaced, Dupont. Some wrapped steel replacement. No leak prone transmission segments. ILI assessments. Most of the pipe is non piggble and DCVG.

37. Question Result, ID, References: Sat, 114.LEAKPRONE.LKRLSLKDATA.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.GGBOOST)

Question Text: *Do procedures include a methodology to collect, retain and analyze detailed information from detected leaks, including those eliminated by lubrication, adjustment, tightening or otherwise below thresholds for regulatory reporting?*

Assets Covered 88986 (1878)

Result Notes All below ground leaks are tracked. For non-hazardous leaks above ground are tracked, but with variables. These are stored in the leak survey results. The leak grading procedures are 2625.1300.

38. Question Result, ID, References Sat, 114.LEAKPRONE.LKMITGRPREXAMPLE.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.GGBOOST)

Question Text *Do procedures identify cast iron, unprotected steel, wrought iron, and vintage plastic pipe with known leak issues?*

Assets Covered 88986 (1878)

Result Notes Replacement programs are in the DIMP program. PRP and leak prone pipe has been priorited. The cast iron was completed about 2006 or 2007.

39. Question Result, ID, References Sat, 114.LEAKPRONE.LKMITGRPROTHER.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.GGBOOST)

Question Text *Do procedures clearly define a process to address replacement or remediation of pipe segments with known leak issues beyond those specifically identified in Section 114?*

Assets Covered 88986 (1878)

Result Notes Celcon caps are

114.GGBOOST: Section 114 - Gas Gathering & Boosting

40. Question Result, ID, References NIC, SRN.114.INSPECTCVRG.S, (also presented in: 114.GT, 114.UNGS)

Question Text *What are your assets comprised of?*

Assets Covered 88986 (1878)

Result Notes Total transmission mileage is 27.035. Cedar Hills is .263 miles long. The remaining mileage is non-RNG transmission.

- Unit 74999: WUTC – Sumas Gas Pipeline

Unit 74999 is a pipeline that carries gas from the US/Canada border into northern Washington near Sumas. This unit has no compressor stations, and no storage fields.

- Unit 33875: WA – UTC/Jackson Prairie Storage Facility

Unit 33875 is an underground natural gas storage facility used at times of peak demand. It is located in Jackson Prairie, Washington which is 100 miles south of Seattle. This unit has one compressor station and two storage fields.

41. Question Result, ID, References NIC, SRN.114.GASTRANSPORT.S, (also presented in: 114.GT, 114.UNGS)

Question Text *Do you transport natural gas as a specific commodity (i.e., not a byproduct or constituent of another substance)?*

Assets Covered 88986 (1878)

Result Notes Natural gas is transported as a specific commodity.

42. Question Result, ID, References NA, SRN.114.DRIVERENGINE.S, (also presented in: 114.GT, 114.UNGS)

Question Text *Do you use natural gas-fueled drivers or engines to compress natural gas?*

Assets Covered 88986 (1878)

Result Notes No such requirement existed in the scope of inspection review. Only ones are at JP.

43. Question Result, ID, References NIC, SRN.114.NGUSE.S, (also presented in: 114.GT, 114.UNGS)

Question Text *Do you use natural gas for fuel or power appurtenances or instrument gas on regulated facilities?*

Assets Covered 88986 (1878)

Result Notes Sumas has a control valve and the YZ injectors (about 15) The LNG plant uses nitrogen. PSE been using electric pumps for new equipment. Gas fired heaters are used

44. Question Result, ID, References: Sat, 114.114.COMPRESSOR.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.UNGS)

Question Text: *Do the maintenance and operations procedures for compressors include provisions to minimize fugitive natural gas losses?*

Assets Covered: 88986 (1878)

Result Notes: There are 8 turbine compressors. There are two electric powered compressors. Two natural gas fueled recips and there is a Cat 6 cylinder. The Tauruses have dry seals. There are 6 turbines that have wet seals and they must be blown down during shut down. Starting and shut down is coordinated through a best operating practice.

45. Question Result, ID, References: Sat, 114.114.DRIVERENGINE.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.UNGS)

Question Text: *Do maintenance procedures include measures for monitoring and correcting incomplete combustion of natural gas in driver or engine exhausts and taking corrective action if identified?*

Assets Covered: 88986 (1878)

Result Notes: The air permit that they operate under keeps the emissions under a third of what is allowable. The operator performs routine testing from 7 years to annual. These are performed by a third-party contractor. This is scheduled and monitored through the SWCAA process. The environmental group within tracks this. Archer is used to track this.

46. Question Result, ID, References: Sat, 114.114.LKRLSID.P, 49 U.S.C. 60108(a) (also presented in: 114.GT)

Question Text: *Do procedures provide a methodology for identifying sources of fugitive natural gas emissions in the system?*

Assets Covered: 88986 (1878)

Result Notes: This is covered under GOS 2625.1100. (Leak survey) This covers storage facility piping, GOS 2526.1300 (Leakage action program) PSE and LDCs report leakage

47. Question Result, ID, References: Sat, 114.114.LKRLSVENT.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.UNGS)

Question Text: *Do procedures identify measures for minimizing natural gas release volumes associated with non-emergency venting and blowdowns from operations and maintenance?*

Assets Covered: 88986 (1878)

Result Notes: This question was asked for the UGSS questions. The water separators are vented for normal maintenance and they do vent well 914 and they monitor and measure it.

48. Question Result, ID, References: Sat, 114.114.LKRLSUNEXPCTVENT.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.UNGS)

Question Text: *Do procedures provide for investigation of any unanticipated vented releases of natural gas, and if so, what are the associated actions?*

Assets Covered: 88986 (1878)

Result Notes: Occasionally, the water separator dump valve will stick open at a well head. API 1171 ERP 2.3.2.2

49. Question Result, ID, References: Sat, 114.114.LKRLSLKDATA.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.UNGS)

Question Text: *Do procedures include a methodology to collect, retain and analyze detailed information from detected natural gas leaks, including those eliminated by lubrication, adjustment, tightening or otherwise below thresholds for regulatory reporting?*

Assets Covered: 88986 (1878)

Result Notes: Department of Ecology requires monitoring and the operator performs a FLIR study and monitors it more closely than they did in the past. The data is fed back to the WA Department of Ecology. Gas loss is collected from all leak sources. If it is not 3rd party damage, it is analyzed. They eliminated bolt on tees.

50. Question Result, ID, References: Sat, 114.114.TESTESD.P, 49 U.S.C. 60108(a) (also presented in: 114.GT)

Question Text: *Do procedures contain measures for ensuring ESD testing minimizes natural gas releases?*

Assets Covered: 88986 (1878)

Result Notes: No ESDs in distribution, intrastate transmission. Only JP and Tacoma LNG.

51. Question Result, ID, References: Sat, 114.114.TESTRELIEFVLV.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.UNGS)

Question Text: *Do relief valve testing procedures include measures to minimize natural gas releases?*

Assets Covered 88986 (1878)

Result Notes The operator performs relief testing by isolating GOS 4700.1620 specify using compressed nitrogen. They close the portion of pipe directly. Relief valve is only tested with a blocked in small volume of gas if Nitrogen is not used.

52. Question Result, ID, References Sat, 114.114.FLARE.P, 49 U.S.C. 60108(a) (also presented in: 114.GT)

Question Text *Do procedures for flaring from pipeline facilities for transporting natural gas include measures for minimization of natural gas emissions?*

Assets Covered 88986 (1878)

Result Notes There is a flare at the LNG system. There is an emissions monitoring system there. Flares are used at gates to burn off odorants. Engineering has a flare safety sheet which is job specific.

53. Question Result, ID, References Sat, 114.114.GNLDSGNCNFG.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.UNGS)

Question Text *Do operation and maintenance procedures contain mechanisms for identifying potential design/configuration changes for reducing natural gas releases?*

Assets Covered 88986 (1878)

Result Notes The standard is GOS 2525.1700. Section 7.6 addresses cover and the separation . GOS 2525.2800. (12" from the carrier pipe designed for external loading)

54. Question Result, ID, References NA, 114.114.GNLCMPSTATION.P, 49 U.S.C. 60108(a) (also presented in: 114.GT)

Question Text *Do procedures contain mechanisms for minimizing natural gas emissions from operations and maintenance activities within a compressor station (i.e., beyond compressor/driver-specific procedures)?*

Assets Covered 88986 (1878)

Result Notes No such relevant facilities/equipment existed in the scope of inspection review. There are no recirculating or (Zevac) type systems to reinject. There are isolation valves.

55. Question Result, ID, References Sat, 114.LEAKPRONE.LKRLS.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.UNGS)

Question Text *What procedures are in place to monitor for and identify pipe segments that are leak-prone, and what criteria (e.g., frequency of leak or failure events) are specified for determining a pipeline segment is leak-prone?*

Assets Covered 88986 (1878)

Result Notes On distibution extensive replacement program. Bare steel replacement program, cast iron has been replaced, Dupont. Some wrapped steel replacement. No leak prone transmission segments. ILI assesments. Most of the pipe is non piggble and DCVG.

56. Question Result, ID, References Sat, 114.LEAKPRONE.LKRLSLKDATA.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.UNGS)

Question Text *Do procedures include a methodology to collect, retain and analyze detailed information from detected leaks, including those eliminated by lubrication, adjustment, tightening or otherwise below thresholds for regulatory reporting?*

Assets Covered 88986 (1878)

Result Notes All below ground leaks are tracked. For non-hazardous leaks above ground are tracked, but with variables. These are stored in the leak survey results. The leak grading procedures are 2625.1300.

57. Question Result, ID, References Sat, 114.LEAKPRONE.LKMITGRPREXAMPLE.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.UNGS)

Question Text *Do procedures identify cast iron, unprotected steel, wrought iron, and vintage plastic pipe with known leak issues?*

Assets Covered 88986 (1878)

Result Notes Replacement programs are in the DIMP program. PRP and leak prone pipe has been prioritized. The cast iron was completed about 2006 or 2007.

58. Question Result, ID, References Sat, 114.LEAKPRONE.LKMITGRPROTHER.P, 49 U.S.C. 60108(a) (also presented in: 114.GT, 114.UNGS)

Question Text *Do procedures clearly define a process to address replacement or remediation of pipe segments with known leak issues beyond those specifically identified in Section 114?*

Assets Covered 88986 (1878)

Result Notes Celcon caps are removed when found.

Except as required to be disclosed by law, any 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.

Inspection Output (IOR)

Generated on 2022.December.02 16:12

Report Filters

Assets All, and including items not linked to any asset.
Results All

Inspection Information

Inspection Name	PSE Section 114 - LNG - 8506	Operator(s)	PUGET SOUND ENERGY (22189)	Plan Submitted	11/03/2022
Status	PLANNED	Lead	David Cullom	Plan Approval	11/04/2022 by Scott Rukke
Start Year	2022	Director	Scott Rukke	All Activity Start	11/18/2022
System Type	LNG			All Activity End	11/18/2022
Protocol Set ID	LNG.2022.02			Inspection Submitted	--
				Inspection Approval	--

Inspection Summary

Inspection Scope and Summary

Pursuant to 49 U.S.C. 60108(a)(3), as amended by section 114(a) of the PIPES Act of 2020 (Section 114), PHMSA and state authorities with a certification under 49 U.S.C. 60105 will inspect operators' revised O&M plans in calendar year 2022 for compliance with Section 114 requirements.

The Tacoma LNG Facility is owned by Puget Sound Energy, Inc (PSE) and is located in the Port of Tacoma, Washington. The Tacoma LNG facility will accept delivery of natural gas from a single, bi-directional pipeline. The delivered natural gas is first treated to remove impurities including CO2, water and some sulfur compounds to permit liquefaction. The facility will liquefy the gas using a mixed refrigerant (MR) liquefaction system, store the liquefied gas in an 8 million gallon full-containment (concrete outer) tank, transfer LNG to a marine dock for bunkering to ships or barges, transfer LNG to trucks, and vaporize the gas to send-out to the pipeline during periods of high demand. Receipt of gas and delivery of gas back to PSE's main distribution pipeline network is made through the same bidirectional pipeline spur into the facility. The LNG facility includes an 8-million-gallon storage tank, a nominal 250,000 gallon per day liquefaction system, a 66 decatherms per day vaporization system, dual truck loading bays at 300 gallons per minute loading rate at each bay, and a 2,640 GPM ship fuel bunkering system.

The Gig Harbor facility is a Liquefied Natural Gas (LNG) Storage and Vaporization facility located on a 13-acre parcel on Bujacich Road NW near the city of Gig Harbor, Pierce County, Washington. The facility has been built to provide natural gas peak capacity to PSE's existing natural gas distribution network. The LNG Facility is used for the storage and vaporization of Liquefied Natural Gas (LNG). LNG is delivered by truck to the facility, offloaded into LNG Storage Tank(s) from a Truck Unloading Station, stored in the LNG Storage Tank(s), converted from a liquid state into a gas state (vaporized) during periods of high natural gas demand, odorized, and sent out into an existing natural gas distribution system through a welded steel pipeline. The major components of the facility include two 70,000-gallon LNG Storage Tanks, LNG Truck Unloading Station, one 650 MSCFH LNG vaporizer, Send-out Skid with boil-off compressor and odorant injection system, emergency generator, fire protection system, security system, spill impoundment system, and a Multipurpose Building which houses the Control Room, Motor Control Center, and Compressed Air Skid. There is also a storage shelter which houses PSE's portable vaporizer. Provisions have been incorporated in the facility design to allow for operation of the portable vaporizer at the Gig Harbor site.

Facilities visited and Total AFOD

This inspection consisted of a plan and procedure review. The LNG portion was 1 AFOD.

Summary of Significant Findings

No apparent violations were discovered during this inspection.

Primary Operator contacts and/or participants

Williams, Cameron; Tupua, Morna; Lillehaug, Greg; Wooten, David; Wahlborg, Justin; Coombes, Stephen; Green, Jake; Royer, Wilson; Wang, Yvonne; Bermer, Pam

Scope (Assets)

#	Short Name	Long Name	Asset Type	Asset IDs	Excluded Topics	Planned	Required	Total Inspected	Required % Complete
1.	90874	Puget Sound Energy-GIG HARBOR LNG SATELLITE PLANT	unit	90874	--	25	25	25	100.0%
2.	85654	Puget Sound Energy- TACOMA LNG	unit	85654	--	25	25	25	100.0%

1. Percent completion excludes unanswered questions planned as "always observe".

Plans

#	Plan Assets	Focus Directives	Involved Groups/Subgroups	Qst Type(s)	Extent	Notes
1.	90874, 85654	--	114.LNG	P, R, O, S	Detail	--

Plan Implementations

#	Activity Name	SMART Act#	Start Date End Date	Focus Directives	Involved Groups/Subgroups	Assets	Qst Type(s)	Planned	Required	Total Inspected	Required % Complete
1.	LNG 114	--	11/18/2022 11/18/2022	--	114	90874, 85654	all types	50	50	50	100.0%

1. Since questions may be implemented in multiple activities, but answered only once, questions may be represented more than once in this table.
2. Percent completion excludes unanswered questions planned as "always observe".

Forms

This inspection has no Form data entry.

Results (all values, 25 results)

114.LNG: Section 114 - LNG

1. Question Result, ID, References: NIC, SRN.114.INSPECTCVRG.S,
   Question Text: *What are your assets comprised of?*
   Assets Covered: 90874, 85654
   Result Notes: The Tacoma LNG plant creates LNG that is used as a ship fuel source and to load LNG trucks.

   There is an LNG peak shaving plant in Gig Harbor.

2. Question Result, ID, References: NIC, SRN.114.GASTRANSPORT.S,
   Question Text: *Do you transport natural gas as a specific commodity (i.e., not a byproduct or constituent of another substance)?*
   Assets Covered: 90874, 85654
   Result Notes: The Tacoma LNG plant the operator produces its own LNG.

   At the Gig Harbor LNG peak shaving system, the LNG arrives on truck and is already processed.

Report Filters: Results: all

3. Question Result, ID, References: NA, SRN.114.DRIVERENGINE.S,

Question Text: *Do you use natural gas-fueled drivers or engines to compress natural gas?*

Assets Covered: 90874, 85654

Result Notes: In Tacoma, LNG is produced, so gas is not compressed for transportation with turbines or reciprocating compressors.

In Gig Harbor, there are no engines or compressors that run off natural gas. The operator uses an electric compressor for the boil off recovery.

4. Question Result, ID, References: NIC, SRN.114.NGUSE.S,

Question Text: *Do you use natural gas for fuel or power appurtenances or instrument gas on regulated facilities?*

Assets Covered: 90874, 85654

Result Notes: The LNG plant in Tacoma uses nitrogen to operate controls for the odorizer on the output. The two odorizers at Tacoma use nitrogen under Part 192. Under Part 193, natural gas heaters are used for the pretreatment system. The Vapor Destruction Unit (VDU) uses pilot gas.

At the Gig Harbor LNG plant, they have a YZ injector. Natural gas is used for vaporizers, natural gas electric power generation, and a glycol heater.

5. Question Result, ID, References: Sat, 114.114.COMPRESSOR.P, 49 U.S.C. 60108(a)

Question Text: *Do the maintenance and operations procedures for compressors include provisions to minimize fugitive natural gas losses?*

Assets Covered: 90874, 85654

Result Notes: There are two compressors, one for an MRL and one booster. The seals are dry and any seal gas goes to the VDU. The LDAR plan (Leak detection and repair) stores information about the leak cause and they repair all leaks.

No compressors for gas movement. There is a smaller compressor that is used to compress gas at the send out point if needed for re-injection.

6. Question Result, ID, References: NA, 114.114.DRIVERENGINE.P, 49 U.S.C. 60108(a)

Question Text: *Do maintenance procedures include measures for monitoring and correcting incomplete combustion of natural gas in driver or engine exhausts and taking corrective action if identified?*

Assets Covered: 90874, 85654

Result Notes: Tacoma LNG does not have any compressors that run on natural gas. The heater units have O2 sensors that look at combustion performance. The VDU has a CIMS unit (continuous monitoring). The CIMS procedures are available. If a spare goes bad they have replacement parts. This is monitored through O&M procdures with the VDU. (Vapor Destruction Unit)

In Gig Harbor, they use an electric natural gas compressors if needed.

7. Question Result, ID, References: Sat, 114.114.LKRLSID.P, 49 U.S.C. 60108(a)

Question Text: *Do procedures provide a methodology for identifying sources of fugitive natural gas emissions in the system?*

Assets Covered: 90874, 85654

Result Notes: The LDAR plan contains the fugitive emissions for leak detection. This is done weekly. All portions are inspected once a month. The Leak detection and repair plan (LDAR) is highly detailed with asset inventories.

For Gig Harbor, procedure 2625.1300 is in the GOS for leak grading and repair. The operator performs annual leak surveys under GOS 2625.1100.

8. Question Result, ID, References: Sat, 114.114.LKRLSVENT.P, 49 U.S.C. 60108(a)

Question Text: *Do procedures identify measures for minimizing natural gas release volumes associated with non-emergency venting and blowdowns from operations and maintenance?*

Assets Covered 90874, 85654

Result Notes P2004-MS-011 is a contractor maintenance procedure. That employed by the plant work for NAES and that is under Part 193.

For Gig Harbor, Section 18 of the O&M has the procedure to valve off and isolate the smallest section.

9. Question Result, ID, References Sat, 114.114.LKRLSUNEXPCTVENT.P, 49 U.S.C. 60108(a)

Question Text *Do procedures provide for investigation of any unanticipated vented releases of natural gas, and if so, what are the associated actions?*

Assets Covered 90874, 85654

Result Notes There are different levels of leaking. The ERP has higher level leaks and actions to be taken to stop the emergency. The smaller leaks are managed through the LDAR program, The LDAR program is an ongoing program for routine maintenance. The PRV releases are documented through the LDAR program.

For Gig Harbor, 2625.1300 in the GOS for leak grading and repair. They perform annual leak surveys under GOS 2625.1100.

10. Question Result, ID, References Sat, 114.114.LKRLSLKDATA.P, 49 U.S.C. 60108(a)

Question Text *Do procedures include a methodology to collect, retain and analyze detailed information from detected natural gas leaks, including those eliminated by lubrication, adjustment, tightening or otherwise below thresholds for regulatory reporting?*

Assets Covered 90874, 85654

Result Notes These are tracked in the LDAR program.

For Gig Harbor, 2625.1300 in the GOS for leak grading and repair.

11. Question Result, ID, References Sat, 114.114.LKRLSDETECTLK.P, 49 U.S.C. 60108(a)

Question Text *Do procedures include instructions for personnel to detect leaks to help further reduce emission in stations and along the right of way?*

Assets Covered 90874, 85654

Result Notes At Tacoma LNG, the ROW is within their own property.

For Gig Harbor, no ROW, 2625.1300 in the GOS for leak grading and repair. They perform annual leak surveys under 2625.1100.

12. Question Result, ID, References Sat, 114.114.LKRLSTNKSHELL.P, 49 U.S.C. 60108(a)

Question Text *Do procedures provide for monitoring for temperature variations on tank shells that could be indicative of leaks?*

Assets Covered 90874, 85654

Result Notes It is a full containment tank. There are 4 temperature sensors in the annular space. They alarm at -140F. The TI (Temp indicators ti-4112 ABCD)

For Gig Harbor, 70,000 WC tanks. There are 2. Nickel steel inner and carbon on the outside. Nothing is monitoring temperature in the annular space.

13. Question Result, ID, References Sat, 114.114.LKRLSTNKDISTURB.P, 49 U.S.C. 60108(a)

Question Text *Do procedures for tank inspections after meteorological or geophysical disturbances include leak detection?*

Assets Covered 90874, 85654

Result Notes The Tanks are designed based on P2004MS013 Section 5.6. There are procedures for post inspection following seismic events.

For Gig Harbor, there is a procedure 24.15 for earthquake follow-up. The ESD now will active a plant shutdown in s seismic activity.

14. Question Result, ID, References Sat, 114.114.LKRLSTNKCOOLDOWN.P, 49 U.S.C. 60108(a)

Question Text *Do procedures provide that after cooldown stabilization is reached, flanges, valves and seals are checked for leaks?*

Assets Covered 90874, 85654

Result Notes P2004-OS-140 Section 9.1 in the manual contains the procedure.

For Gig Harbor, the CFR 193 portion is in the O&M PSE 0201-OP1 Section 13.3.6

15. Question Result, ID, References Sat, 114.114.LKRLSTNKBOIL.P, 49 U.S.C. 60108(a)

Question Text *Do procedures provide for collection of boil-off gas from LNG tanks to avoid releases?*

Assets Covered 90874, 85654

Result Notes The LNG Storage operation P2004-OS-130 Section 5.4.1. The boil off gas is sent back out to the pipeline. There is a 1.5 mile IP system that is goes out to PSE. They have the ability to vaporize the

For Gig Harbor, the pressure from boil off is controlled at the tank. The resulting is odorized before it goes into the gas system. Section 4.6 discusses this.

16. Question Result, ID, References Sat, 114.114.TESTESD.P, 49 U.S.C. 60108(a)

Question Text *Do procedures contain measures for ensuring ESD testing minimizes natural gas releases?*

Assets Covered 90874, 85654

Result Notes ESD testing is designed to not have any releases. They can do an inhibited test is done about 6 months. There is also a function test.

For Gig Harbor, the ESD is tested 2x a year to ensure operation is correct. The EOP Section 3.11 has the ESD description. The ESD is an isolation system.

17. Question Result, ID, References Sat, 114.114.TESTRELIEFVLV.P, 49 U.S.C. 60108(a)

Question Text *Do relief valve testing procedures include measures to minimize natural gas releases?*

Assets Covered 90874, 85654

Result Notes They refer to thier isolation and purging procedures. About 95% of the PSVs can be tested without blow down. If they have to de-inventory that gas goes to the VDU. Nitrogen is used to purge back into service.

For Gig Harbor, as with other PSE systems, the operator follows the isolation procedures in Section 18 of the Gig Harbor Operations Manual.

18. Question Result, ID, References Sat, 114.114.FLARE.P, 49 U.S.C. 60108(a)

Question Text *Do procedures for flaring from pipeline facilities for transporting natural gas include measures for minimization of natural gas emissions?*

Assets Covered 90874, 85654

Result Notes Flaring does not occur. This refers to the the isolation and purging procedure Section 1.2 discusses the send back to the VDU.

For Gig Harbor, flares can be used for projects, bleed down occurs, and flares may be used on a job specific basis. Manually lit and monitored for complete combustion.

19. Question Result, ID, References Sat, 114.114.GNLDSGNCNFG.P, 49 U.S.C. 60108(a)

Question Text *Do operation and maintenance procedures contain mechanisms for identifying potential design/configuration changes for reducing natural gas releases?*

Assets Covered 90874, 85654

Result Notes Flaring does not occur at anywhere other than the VDU. This refers to the isolation and purging procedure Section 1.2 discusses the send back to the VDU

For Gig Harbor, this is a static system. And any changes will minimize releases.

20. Question Result, ID, References NA, 114.114.GNLCMPSTATION.P, 49 U.S.C. 60108(a)

Question Text *Do procedures contain mechanisms for minimizing natural gas emissions from operations and maintenance activities within a compressor station (i.e., beyond compressor/driver-specific procedures)?*

Assets Covered 90874, 85654

Result Notes No such relevant facilities/equipment existed in the scope of inspection review. No compressor stations. There is a processor compressor that is used for gas production. If this is considered a compressor for Section 114 purposes - then that is contained in the LDAR plan.

21. Question Result, ID, References Sat, 114.114.GNLLNG.P, 49 U.S.C. 60108(a)

Question Text *What procedures are in place to reduce natural gas emissions during normal maintenance activities on facilities that contain LNG?*

Assets Covered 90874, 85654

Result Notes Flaring does not occur. This refers to the isolation and purging procedure Section 1.2 discusses the send back to the VDU (Vapor Destruction Unit)

Gig Harbor, is peak shaving with no liquefaction.

22. Question Result, ID, References NA, 114.LEAKPRONE.LKRLS.P, 49 U.S.C. 60108(a)

Question Text *What procedures are in place to monitor for and identify pipe segments that are leak-prone, and what criteria (e.g., frequency of leak or failure events) are specified for determining a pipeline segment is leak-prone?*

Assets Covered 90874, 85654

Result Notes No such relevant facilities/equipment existed in the scope of inspection review. This a new facility. They do have a reference if needed in the LDAR plan.

For Gig Harbor, the system was designed with stainless pipe and they use some carbon transfer out and double walled pipe in some sections.

23. Question Result, ID, References Sat, 114.LEAKPRONE.LKRLSLKDATA.P, 49 U.S.C. 60108(a)

Question Text *Do procedures include a methodology to collect, retain and analyze detailed information from detected leaks, including those eliminated by lubrication, adjustment, tightening or otherwise below thresholds for regulatory reporting?*

Assets Covered 90874, 85654

Result Notes These are stored, if needed, in the LDAR. Method 21 is also used.

No Leak prone pipe for Gig Harbor.

24. Question Result, ID, References NA, 114.LEAKPRONE.LKMITGRPREXAMPLE.P, 49 U.S.C. 60108(a)

Question Text *Do procedures identify cast iron, unprotected steel, wrought iron, and vintage plastic pipe with known leak issues?*

Assets Covered 90874, 85654

Result Notes The Gig Harbor Satellite LNG facility does not have vintage plastic pipe.

The Tacoma LNG is a new facility and does not have vintage plastic pipe.

25. Question Result, ID, References NA, 114.LEAKPRONE.LKMITGRPROTHER.P, 49 U.S.C. 60108(a)

Question Text *Do procedures clearly define a process to address replacement or remediation of pipe segments with known leak issues beyond those specifically identified in Section 114?*

Assets Covered 90874, 85654

Result Notes No such relevant facilities/equipment existed in the scope of inspection review. There is a UT pipe inspection program that will occur in Q2 2023, but this is not leak prone pipe.

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