

Inspection Output (IOR)

Generated on 2021.February.18 12:37

Inspection Information

Inspection Name	8281- NWN O&M Review	Operator(s)	NORTHWEST NATURAL GAS CO (13840)	Plan Submitted	02/05/2021
Status	PLANNED	Lead	David Cullom	Plan Approval	02/05/2021 by Joe Subsits
Start Year	2021	Observer(s)	Scott Rukke, Dennis Ritter, Lex Vinsel, Anthony Dorrrough, Deborah Becker, Derek Norwood, Scott Anderson, Darren Tinnerstet, Rell Koizumi	All Activity Start	02/03/2021
System Type	GD	Supervisor	Joe Subsits	All Activity End	02/04/2021
Protocol Set ID	WA.GD.2020.02	Director	Sean Mayo	Inspection Submitted	--
				Inspection Approval	--

Inspection Summary

Inspection Scope and Summary

This inspection consisted of a Plan and Procedure Review of Northwest Natural's Standard Practices, the Field Operation Manual (FOM), and Emergency Response Procedures. The evaluation covered CFR 49 Part 191, 192, ADBs, best practices, and WAC 480-93 regulations.

Facilities visited and Total AFOD

No facilities were visited. AFODs - 7 (Remote due to CV-19)

Summary of Significant Findings

No probable violations or areas of concern were noted.

Primary Operator contacts and/or participants

Regulatory Contact - Compliance Engineer - Margaret Locke - margaret.locke@nwnatural.com

Regulatory Contact - Code Compliance Specialist - Jaimie Lemke - jaimie.lemke@nwnatural.com

Regulatory Contact - Sr. Manager of Compliance - Ryan Truair - ryan.truair@nwnatural.com

Regulatory Contact - Code Compliance Specialist - Samantha Rookstool - samantha.rookstool@nwnatural.com

Operator executive contact and mailing address for any official correspondence

Formal Correspondence - Vice President of Engineering and Utility Operations - Jon G. Huddleston - jon.huddleston@nwnatural.com

250 Southwest Taylor Street, Portland, Oregon 97204

Scope (Assets)

#	Short Label	Long Label	Asset Type	Asset IDs	Excluded Topics	Planned	Required	Inspected	Total	Required % Complete
1.	88965 (1,826)	Northwest Natural-HEADQUARTERS	unit	88965	Storage Fields Bottle/Pipe - Holders Vault Offshore GOM OCS Cast or Ductile Iron Copper Pipe Aluminum/Amphoteric Abandoned	118	118	118	118	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.	88965 (1,826)	Baseline Procedures (Form 2)	PRO, PRR, FR, GDIM, MMLPGIM, MISCTOPICS, GENERIC	P, R, O, S	Detail

Plan Implementations

Activity #	Name	SMART Act#	Start Date	End Date	Focus Directives	Involved Groups/Subgroups	Qst Assets	Type(s)	Planned	Required	Inspected	Total	Required % Complete
1.	PhP Review	--	02/03/2021	02/04/2021	n/a	all planned questions	all assets	all types	118	118	118	118	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, 123 results)

124 (instead of 123) results are listed due to re-presentation of questions in more than one sub-group.

PRO.REPORT: Reporting

- Question Result, ID, References **Sat, RPT.RR.IMMEDREPORT.P, 191.5(b) (191.7(a), 191.7(d))**

Question Text *Is there a process to immediately report incidents to the National Response Center?*

Assets Covered **88965 (1,826)**

Result Notes *****Notes – SP-002 contains the NRC reporting guidance. The volume calculation is contained in Engineering Procedure H-3*****
- Question Result, ID, References **Sat, RPT.RR.EMERGENCYNOTIFY.P,**

Question Text *Does the manual include procedures to notify the commission of certain incidents or hazardous conditions within the required time frame?*

Assets Covered 88965 (1,826)

Result Notes Telephonic Reports to **UTC Pipeline Safety Incident Notification 1-888-321-9144** (Within **2 hours**) for events which; 480-93-200(1)

- (a) Results in a fatality or personal injury requiring hospitalization; *****Notes – SP-002 Section 3.2.1 contains this.*****
- (b) Results in damage to the property of the operator and others of a combined total exceeding fifty thousand dollars; *****Notes – SP-002 Section 3.2.1 contains this.*****
- (c) Results in the evacuation of a building, or high occupancy structures or areas*****Notes – SP-002 Section 3.2.1 contains this.*****
- (d) Results in the unintentional ignition of gas; *****Notes – SP-002 Section 3.2.1 contains this.*****
- (e) Results in the unscheduled interruption of service furnished by any operator to twenty-five or more distribution customers; *****Notes – SP-002 Section 3.2.1 contains this.*****
- (f) Results in a pipeline or system pressure exceeding the MAOP plus ten percent or the maximum pressure allowed by proximity considerations outlined in WAC 480-93-020; *****Notes – SP-002 Section 3.2.1 contains this.*****
- g) Is significant, in the judgment of the operator, even though it does not meet the criteria of (a) through (e) of this subsection; or *****Notes – SP-002 Section 3.2.1 contains this.*****

Telephonic Reports to UTC Pipeline Safety Incident Notification 1-888-321-9146 (Within **24 hours**) for; 480-93-200(2) *****Notes – SP-002 Section 3.2.2 contains this.*****

- (a) The uncontrolled release of gas for more than two hours; *****Notes – SP-002 Section 3.2.2 contains this.*****
- (b) The taking of a high pressure supply or transmission pipeline or a major distribution supply pipeline out of service; *****Notes – SP-002 Section 3.2.2 contains this.*****
- (c) A pipeline or system operating at low pressure dropping below the safe operating conditions of attached appliances and gas equipment; or *****Notes – SP-002 Section 3.2.2 contains this.*****
- (d) A pipeline or system pressure exceeding the MAOP. *****Notes – SP-002 Section 3.2.2 contains this.*****

3. Question Result, ID, References Sat, RPT.RR.INCIDENTREPORT.P, 191.9(a)

Question Text *Does the process require preparation and filing of an incident report as soon as practicable but no later than 30 days after discovery of a reportable incident?*

Assets Covered 88965 (1,826)

Result Notes *****Notes – SP-002 Section 3.3.1 contains this.*****

4. Question Result, ID, References Sat, RPT.RR.THIRTYDAYRPT.P,

Question Text *Does the manual include procedures to submit a written report to the commission within thirty days of the initial telephonic report?*

Assets Covered 88965 (1,826)

Result Notes *****Notes – SP-002 Section 3.4.1 contains this.*****

5. Question Result, ID, References Sat, RPT.RR.INCIDENTREPORTSUPP.P, 191.9(b)

Question Text *Does the process require preparation and filing of supplemental incident reports?*

Assets Covered 88965 (1,826)

Result Notes Federal Supplemental incident reports 191.15(c) *****Notes – SP-002 Section 3.3.2 contains this.*****

State Supplemental reports **filed with the commission** 480-93-200(5) *****Notes – SP-002 Section 3.4.2 contains this.*****

6. Question Result, ID, References Sat, RPT.RR.OPID.P, 191.22(a) (191.22(c), 191.22(d))

Question Text *Does the process require the obtaining, and appropriate control, of Operator Identification Numbers (OPIDs), including changes in entity, acquisition/divestiture, and construction/update/uprate?*

Assets Covered 88965 (1,826)

Result Notes *****Notes – SP-007 Section 3.7.4.2 contains this.*****

7. Question Result, ID, References Sat, RPT.RR.SRCR.P, 192.605(a) (191.23(a), 191.23(b), 191.25(a), 191.25(c))

Question Text *Do the procedures require reporting of safety-related conditions?*

Assets Covered 88965 (1,826)

Result Notes *****Notes – SP-005 Section 3.2 contains this.*****

8. Question Result, ID, References Sat, MO.GO.SRC.P, 192.605(a) (192.605(d), 191.23(a))

Question Text *Does the process include instructions enabling personnel who perform operation and maintenance activities to recognize conditions that may potentially be safety-related conditions?*

Assets Covered 88965 (1,826)

Result Notes

*****Notes – Abnormal operating conditions can lead to or include SRCs. These are part of the OQ program testing and evaluation process*****

9. Question Result, ID, References Sat, DC.CO.FILEREQ.P,

Question Text *Do procedures include requirements to file documents with the UTC at least 45 days prior to operation or construction of a pipeline?*

Assets Covered 88965 (1,826)

Result Notes *****Notes - NWN has been filing its O&M manual with the UTC and annually updating the content for some time. This procedure is intended for new operators that have not yet filed a manual and are developing a new plan for submission to the Commission. The manual is reviewed and updated at least once a year NTE 15 months per SP-000.*****

10. Question Result, ID, References Sat, FS.FG.PROXCON.P,

Question Text *Are procedures in place to submit a written request to the commission prior to operating a gas pipeline in the areas and pressures designated in WAC 480-93-020?*

Assets Covered 88965 (1,826)

Result Notes *****Notes – In SP 007 Section 3.3.1 (>500psig) and Section 3.3.2 (>250psig)*******

11. Question Result, ID, References Sat, RPT.RR.MAOPINCREASEPLANS.P,

Question Text *Do procedures require filing with the commission 45 days prior to uprating to a MAOP greater than 60 psig?*

Assets Covered 88965 (1,826)

Result Notes *****Notes – In SP 555 Section 3.1.5*****

12. Question Result, ID, References Sat, RPT.RR.DIRTREPORTS.P,

Question Text *Do procedures require a report (i.e., DIRT Report) to be submitted to the commission and provide excavators with the required information in the event of damage to their gas pipeline?*

Assets Covered 88965 (1,826)

Result Notes *****Notes – SP-605 and 007 contain these procedures.*****

13. Question Result, ID, References Sat, RPT.RR.DAILYCONSTRUCTIONRPT.P,

Question Text *Do procedures require daily construction and repair activities to be emailed to the commission no later than 10 AM each day work is scheduled?*

Assets Covered 88965 (1,826)

Result Notes *****Notes – SP-007 Section 3.7.8 contains this procedure.*****

PRO.SUBACUSTEFV: Customer and EFV Installation Notification

14. Question Result, ID, References **Sat, MO.GO.CUSTNOTIFY.P, 192.13(c) (192.16(a), 192.16(b), 192.16(c), 192.16(d))**
 Question Text *Is a customer notification process in place that satisfies the requirements of 192.16?*
 Assets Covered **88965 (1,826)**
 Result Notes *****Notes – SP-482 Section 3*****
15. Question Result, ID, References **Sat, MO.GO.EFVINSTALL.P, 192.383(b) (192.381(a), 192.381(b), 192.381(c), 192.381(d), 192.381(e), 192.383(a), 192.383(c))**
 Question Text *Is there an adequate excess flow valve (EFV) installation and performance program in place?*
 Assets Covered **88965 (1,826)**
 Result Notes **I reviewed their EFV program in the Standard Procedure.**

*****Notes – SP 381 2.3*** **A PA document that is sent to customers explaining they can have an EFV installed was also reviewed. *****

PRO.SUBLNORMOPS: Normal Operating And Maintenance

16. Question Result, ID, References **Sat, MO.GO.OMANNUALREVIEW.P, 192.605(a)**
 Question Text *Does the process include a requirement to review the manual at intervals not exceeding 15 months, but at least once each calendar year?*
 Assets Covered **88965 (1,826)**
 Result Notes *****Notes – In SP 000*****
17. Question Result, ID, References **Sat, MO.GO.OMHISTORY.P, 192.605(a) (192.605(b)(3))**
 Question Text *Does the process include requirements for making construction records, maps and operating history available to appropriate operating personnel?*
 Assets Covered **88965 (1,826)**
 Result Notes *****Notes – In SP 607 Policy*****
18. Question Result, ID, References **Sat, MO.GOMAOP.MAOPLIMIT.P, 192.605(a) (192.605(b)(5))**
 Question Text *Does the process include requirements for starting up and shutting down any part of the pipeline in a manner to assure operation with the MAOP limits, plus the build-up allowed for operation of pressure-limiting and control devices?*
 Assets Covered **88965 (1,826)**
 Result Notes *****Notes – SP-005 Section Policy contains this.*****
19. Question Result, ID, References **Sat, MO.GO.OMEFFECTREVIEW.P, 192.605(a) (192.605(b)(8))**
 Question Text *Does the process include requirements for periodically reviewing the work done by operator personnel to determine the effectiveness, and adequacy of the processes used in normal operations and maintenance and modifying the processes when deficiencies are found?*
 Assets Covered **88965 (1,826)**
 Result Notes *****Notes – The covered task performance review is in NWN's OQ program and addressed in SP 801 . *****
20. Question Result, ID, References **Sat, MO.GO.ODDOR.P, 192.605(a) (192.605(b)(11))**
 Question Text *Does the process require prompt response to the report of a gas odor inside or near a building?*
 Assets Covered **88965 (1,826)**
 Result Notes *****Notes – In SP 603*****
21. Question Result, ID, References **Sat, AR.RMP.SAFETY.P, 192.605(b)(9) (192.713(b))**
 Question Text *Does the process ensure that repairs are made in a safe manner and are made so as to prevent damage to persons and property?*
 Assets Covered **88965 (1,826)**

Result Notes *****Notes - This is contained in the FOM which is now entirely online. For example, these sections in the FOM address repairs being made in a safe manner. These are searchable sections in the manual. Investigating Leaks or Outside Odor Calls, Requirements for Wearing Flash Suits, Identifying and Mitigating AC Interference, AOC-03 Responding to Escaping Gas or Fire from a Pipeline Facility, OP 501-02 Investigating Leaks and Odors by Contractor Leakage Surveyors, and Preventing Injuries at the Job Site Using the Job Hazard Analysis (JHA) Process.*****

22. Question Result, ID, References NA, MO.GM.HOLDER.P, 192.605(a) (192.605(b)(10))

Question Text *Does the process include systematic and routine testing and inspection of pipe-type or bottle-type holders?*

Assets Covered 88965 (1,826)

Result Notes No such relevant facilities/equipment existed in the scope of inspection review.

23. Question Result, ID, References Sat, MO.GM.MOVEANDLOWER.P,

Question Text *Does the manual include procedures to prepare a study when moving or lowering metallic pipelines?*

Assets Covered 88965 (1,826)

Result Notes *****Notes – In SP 635*****

24. Question Result, ID, References Sat, MO.GM.ONSITEPROCS.P,

Question Text *Does the manual require that procedures applicable to the work being done are located onsite where the work is being done?*

Assets Covered 88965 (1,826)

Result Notes **For example:**

Qualified written welding procedures must be located on-site where welding is being performed 480-93-080(1)(d) *Notes – SP-221 Section 3.1.1*****

Qualified written plastic joining procedures must be located on-site where plastic joining is being performed. 480-93-080(2)(a) *Notes – In FOM and OQ procedures*****

PRO.SUBCLASS: Change In Class Location

25. Question Result, ID, References Sat, MO.GOCLASS.CLASSLOCATESTUDY.P, 192.605(b)(1) (192.609(a), 192.609(b), 192.609(c), 192.609(d), 192.609(e), 192.609(f))

Question Text *Does the process include a requirement that the operator conduct a study whenever an increase in population density indicates a change in the class location of a pipeline segment operating at a hoop stress that is more than 40% SMYS?*

Assets Covered 88965 (1,826)

Result Notes *****Notes – SP-613 Policy, Section 3.2, but mostly SP 627 contains this in Section 3.3.*****

26. Question Result, ID, References Sat, MO.GOCLASS.CLASSLOCATEREV.P, 192.605(b)(1) (192.611(a), 192.611(b), 192.611(c), 192.611(d))

Question Text *Does the process include a requirement that the MAOP of a pipeline segment be confirmed or revised within 24 months whenever the hoop stress corresponding to the established MAOP is determined not to be commensurate with the existing class location?*

Assets Covered 88965 (1,826)

Result Notes *****Notes – SP-627 Section 3.38*****

PRO.SUBSURVEIL: Continuing Surveillance

27. Question Result, ID, References Sat, MO.GO.CONTSURVEILLANCE.P, 192.605(e) (192.613(a), 192.613(b), 192.703(b), 192.703(c))

Question Text *Are there processes for performing continuing surveillance of pipeline facilities, and also for reconditioning, phasing out, or reducing the MAOP in a pipeline segment that is determined to be in unsatisfactory condition but on which no immediate hazard exists?*

Assets Covered 88965 (1,826)

Result Notes *****Notes – SP-703 Section 3.2*****

PRO.SUBLDAMAGEPREVENT: Damage Prevention Program

28. Question Result, ID, References Sat, PD.OC.PDPROGRAM.P, 192.614(a)
Question Text *Is a damage prevention program approved and in place?*
Assets Covered 88965 (1,826)
Result Notes *****Notes – SP-605*****

PRO.SUBLEMERGOPS: Emergency

29. Question Result, ID, References Sat, EP.ERG.NOTICES.P, 192.615(a)(1)
Question Text *Does the emergency plan include procedures for receiving, identifying, and classifying notices of events which need immediate response?*
Assets Covered 88965 (1,826)
Result Notes *****Notes – SP-615 Section 3*****

30. Question Result, ID, References Sat, EP.ERG.COMMSYS.P, 192.615(a) (192.615(a)(2))
Question Text *Does the emergency plan include procedures for establishing and maintaining adequate means of communication with appropriate fire, police, and other public officials?*
Assets Covered 88965 (1,826)
Result Notes *****Notes – SP-615 Section 2*****

"All emergencies are managed using Incident Command System (ICS) protocols. The system uses terminology and structure that is common among most emergency response agencies. A current copy of the company's Emergency Response Plan is available to all ICT (Incident Command Team) members and others upon request. The plan contains detailed information about ICS roles, responsibilities, escalation, notification and response procedures, and contact information. In all cases, company efforts should be directed toward the following ends, listed in order of importance, per **Section 3.1 of the NW Natural Emergency Response and Recovery Plan.**"

31. Question Result, ID, References Sat, EP.ERG.RESPONSE.P, 192.615(a) (192.615(a)(3), 192.615(a)(11), 192.615(b)(1))
Question Text *Does the emergency plan include procedures for making a prompt and effective response to a notice of each type of emergency, including gas detected inside or near a building, a fire or explosion near or directly involving a pipeline facility, or a natural disaster?*
Assets Covered 88965 (1,826)
Result Notes *****Notes – SP-615 Section 2*****

2. POLICY Company response to an emergency must be prompt, effective, and include mobilization of personnel, materials, and equipment to the extent necessary to mitigate the cause(s) of the emergency.

This includes incidents involving:

Gas in or near a building,

Gas released due to excavation damage,

Fire and/or explosion near or directly involving a gas facility, or

Natural disaster (e.g., an earthquake, tsunami, flood, or volcanic eruption) in which gas is not the principal problem but is a significant part of a larger problem.

32. Question Result, ID, References Sat, EP.ERG.READINESS.P, 192.615(a) (192.615(a)(4))
Question Text *Does the process include procedures for ensuring the availability of personnel, equipment, tools, and materials as needed at the scene of an emergency?*
Assets Covered 88965 (1,826)

3. PROCEDURE

Emergency response and the ICS (Incident Command System) is designed to be scalable and adaptable to a wide range of events from those endangering human life or property to widespread outages and service disruptions. These events may also be caused by numerous factors including facility damage, equipment failure, natural disaster, terrorism, and civil disorder. In determining the appropriate emergency action, NW Natural's primary rule is to direct resources toward the protection of people first, then property.

In support of this, NW Natural has developed an Emergency Response and Recovery Plan.

The primary elements of the plan are as follows:

- Incident command team roles and responsibilities
- Receiving notification and identifying and classifying emergencies
- Establishing and maintaining adequate means of communication
- **Enduring the availability of personnel, equipment, tools, and materials**
- Controlling emergency situations
- Restoration of service
- Incident command team evaluation and training

33. Question Result, ID, References Sat, EP.ERG.PUBLICPRIORITY.P, 192.615(a) (192.615(a)(5))

Question Text *Does the emergency plan include procedures for taking actions directed toward protecting people first and then property?*

Assets Covered 88965 (1,826)

Result Notes ***Notes – SP-615 Section 2***

Protect lives

Establish safe conditions

Protect environment and property

Communicate and coordinate with emergency responders and public officials

Restore and maintain customer service

Restore and recover NW Natural business functions

34. Question Result, ID, References Sat, EP.ERG.PRESSREDUCESD.P, 192.615(a) (192.615(a)(6))

Question Text *Does the emergency plan include procedures for the emergency shutdown or pressure reduction in any section of pipeline system necessary to minimize hazards to life or property?*

Assets Covered 88965 (1,826)

Result Notes Emergency Response and Recovery Plan Section 3.3.2 Hazardous or Unsafe Conditions has information on pressure reduction.

If conditions do not become an emergency and cannot be corrected promptly, refer to SPW 005 - Reporting Safety-Related Conditions. Additionally, SPW 303 - Requirements for Shutdown, Tie-In, and Startup Procedures must be used as appropriate.

35. Question Result, ID, References Sat, EP.ERG.PUBLICHAZ.P, 192.605(a) (192.615(a)(7))

Question Text *Does the emergency plan include procedures for making safe any actual or potential hazard to life or property?*

Assets Covered 88965 (1,826)

- Result Notes
- received from any outside source such as a police or fire department, other utility, contractor, customer, or the general public 480-93-185(1) *****Notes – In SP 603*****
 - Grade leak in accordance with WAC 480-93-186, and take appropriate action 480-93-185(1) *****Notes – In SP 709*****

36. Question Result, ID, References Sat, EP.ERG.AUTHORITIES.P, 192.615(a) (192.615(a)(8))

Question Text *Does the emergency plan include procedures for notifying appropriate public officials of gas pipeline emergencies and coordinating with them both planned responses and actual responses during an emergency?*

Assets Covered 88965 (1,826)

Result Notes ERP

Section 3.7.3.3 Communications with Local Government

NW Natural will work to collaborate with local government to develop messaging appropriate for areas impacted by damage. In emergencies for which a jurisdiction's EOC has been activated, NW Natural may assign a Liaison Officer to serve as liaison for energy-related functions and to facilitate communication between the local government's EOC staff and NW Natural.

Duties and responsibilities of this liaison may include the following:

- Provide routine updates to the local public works agencies or EOC staff on impacts to NW Natural's energy distribution system(s) and current restoration timelines as appropriate.
- Identify key coordination issues between NW Natural and local jurisdictions and facilitate discussions to resolve them.
- Collaborate with local jurisdiction officials on community messaging.
- Coordinate with local jurisdiction staff to obtain additional resources as required.

37. Question Result, ID, References Sat, EP.ERG.OUTAGERESTORE.P, 192.615(a) (192.615(a)(9))

Question Text *Does the emergency plan include procedures for safely restoring any service outage?*

Assets Covered 88965 (1,826)

Result Notes This is contained in the Emergency Plan.

3.2 Guidelines for Customer Service Restoration Following a Major Outage6-53

3.2.1 Priority 1aSection 6-53 3.2.2 Priority 1bSection 6-53 3.2.3 Priority 2 through 5Section 6-54

38. Question Result, ID, References Sat, EP.ERG.INCIDENTACTIONS.P, 192.615(a) (192.615(a)(10))

Question Text *Does the process include procedures for beginning action under 192.617, if applicable, as soon after the end of the emergency as possible?*

Assets Covered 88965 (1,826)

- Result Notes
- Grade leak in accordance with WAC 480-93-186, and take appropriate action 480-93-185(1) *****Notes – In SP 709*****
 - retain the leak investigation record for the life of the pipeline. 480-93-185(1) *****Notes – In SP 709 Section 3.4 *****

Prevent removal of any suspected gas facility until the commission or the lead investigative authority has designated the release of the gas facility and keep the facility intact until directed by the lead investigative authority 480-93-185(2) *****Notes – In SP 617 3.1.3*****

Taking appropriate action when leak indications originating from a foreign source. Notification requirements. 480-93-185(3) *****Notes – In SP 603 3.4*****

39. Question Result, ID, References Sat, EP.ERG.TRAINING.P, 192.615(b)(2)

Question Text *Does the process include training of the appropriate operating personnel to assure they are knowledgeable of the emergency procedures and verifying that the training is effective?*

Assets Covered 88965 (1,826)

Result Notes **OQ Program Document - 7.3 Emergencies**

The OQ Program is declared for the reasons stated in the "Purpose and Scope" section of this document. However, it is not the intent of NW Natural to limit the timely and proper response to a legitimate emergency by any NW Natural employee or contractor. When personal or public safety is threatened, NW Natural employees and contractors will take appropriate action, and any discrepancies with the instructions of this document will be reviewed after the emergency ceases. Any worker, when he/she is not qualified on a covered task and when other reasonable options are not available, may perform the task in the circumstances stated below without consequence or threat of discipline.

The task must be performed if, in the judgment of the worker, immediate action is necessary to save the life of, or prevent injury to, a person, or to prevent severe damage to property or the environment.

The Company directs that the task must be performed as part of an emergency effort to respond to an accident or to repair a condition or threat to public safety that exists due to an emergency situation such as severe weather, an earthquake, or other force of nature. If any covered tasks are performed under exceptions one (1) or two (2) above, NW Natural management will take, and document, appropriate action later to determine whether the covered tasks were performed satisfactorily.

Such action may include quality inspections of representative samples, crew interviews, rework, evaluation of the non-qualified workers, or other review.

*****Notes - This is contained in SP-615*****

3.3 NW Natural's Emergency Contacts File with the WUTC and with appropriate officials of all municipalities where the company has facilities, the names, addresses, and telephone numbers of the responsible officials who may be contacted in the event of an emergency. Notify immediately the WUTC and municipalities of any changes in emergency personnel. NW Natural's Gas Control phone number satisfies this requirement. The Gas Controller on duty is the single point of emergency contact 24 hours a day, 7 days a week.

*****Notes - NWN's Emergency Response and Recovery Plan also contains Roles and Responsibilities in Section 4*****

40. Question Result, ID, References Sat, EP.ERG.POSTEVTREVIEW.P, 192.615(b)(3)

Question Text *Does the process include detailed steps for reviewing employee activities to determine whether the procedures were effectively followed in each emergency?*

Assets Covered 88965 (1,826)

Result Notes **OQ Program Document - 7.3 Emergencies**

NW Natural management will take, and document, appropriate action later to determine whether the covered tasks were performed satisfactorily.

Such action may include quality inspections of representative samples, crew interviews, rework, evaluation of the non-qualified workers, or other review.

41. Question Result, ID, References Sat, EP.ERG.LIAISON.P, 192.615(c) (192.615(c)(1), 192.615(c)(2), 192.615(c)(3), 192.615(c)(4), 192.616(c), ADB-05-03)

Question Text *Does the process include steps for establishing and maintaining liaison with appropriate fire, police and other public officials and utility owners?*

Assets Covered 88965 (1,826)

Result Notes NWN's Emergency Response and Recovery Plan (ERRP) defines the processes for:

Responding to an emergency event, including personnel responsibilities.

Responding to controllable events, including notifying personnel and using equipment appropriate for handling the event.

Recognizing and responding to an uncontrollable emergency, which includes notifying local officials responsible for evacuation of the public in the vicinity of the incident.

I am conducting a PA inspection in several months and much of this will be expanded on during that time.

PRO.SUBLPUBAWARE: Public Awareness Program

42. Question Result, ID, References NA, PD.PA.MSTRMETER.P, 192.616(j) (192.616(h)) (also presented in: MISCTOPICS.PUBAWARE)

Question Text *Does the public awareness program for a master meter or petroleum gas system meet the requirements of Part 192?*

Assets Covered 88965 (1,826)

Result Notes No such relevant facilities/equipment existed in the scope of inspection review.

PRO.SUBLFAILINV: Failure Investigation

43. Question Result, ID, References Sat, EP.ERG.INCIDENTANALYSIS.P, 192.617

Question Text *Does the process include procedures for analyzing accidents and failures, including the selection of samples of the failed facility or equipment for laboratory examination, where appropriate, for the purpose of determining the causes of the failure and minimizing the possibility of recurrence?*

Assets Covered 88965 (1,826)

Result Notes *****Notes – In SP 617*****

PRO.SUBLMAOP: MAOP

44. Question Result, ID, References Sat, MO.GOMAOP.MAOPDETERMINE.P, 192.605(b)(1) (192.619(a), 192.619(b), 192.621(a), 192.621(b), 192.623(a), 192.623(b))

Question Text *Does the process include requirements for determining the maximum allowable operating pressure for a pipeline segment in accordance with 192.619?*

Assets Covered 88965 (1,826)

Result Notes *****Notes – In SP 007 Section 3.2, (SPW 623 – MAOP for Class B Distribution Systems and SPW 627 – MAOP for Transmission Lines and Distribution Lines >60 psig)*****

PRO.SUBLPRESSTEST: Pressure Test

45. Question Result, ID, References Sat, AR.PTI.PRESSTESTACCEP.P, 192.503(a) (192.503(b), 192.503(c), 192.503(d), 192.505(a), 192.505(b), 192.505(c), 192.505(d), 192.505(e), 192.507(a), 192.507(b), 192.507(c), 192.513(a), 192.513(b), 192.513(c), 192.513(d))

Question Text *Were test acceptance criteria and procedures/processes sufficient to assure the basis for an acceptable pressure test?*

Assets Covered 88965 (1,826)

Result Notes

Procedures to ensure that the provisions found under 192.503(a) thru (d) for new segments of pipeline, or Return to Service segments of pipeline which have been relocated or replaced are met. *****Notes - SP 725 service reinstatement, 511 dist, 504 HP*****

Strength test requirements for steel pipeline to operate at a hoop stress of 30 percent or more of SMYS. 192.505 (a) thru (e) *****Notes – In 504HP*****

Test requirements for pipelines to operate at a hoop stress less than 30 percent of SMYS and at or above 100 psig. 192.507 (a) thru (c) *****Notes – In 504HP*****

Test requirements for pipelines to operate below 100 psig. 192.509 (a) & (b) *****Notes – In SP 511 for less than 60 psig and anything greater than 60 is SP 504 504HP*****

Test requirements for service lines. 192.511 (a) thru (c) *****Notes – In SP 511*****

Test requirements for plastic pipelines. 192.513 (a) thru (d) *****Notes – In SP 511*****

Environmental protection and safety requirements. 192.515 (a) & (b) *****Notes – In SP 504 refernces water disposal Section 3.2.6*****

Records 192.517 Refer also to 480-93-170 (7) (a-h) below. *****Notes - ***Notes – In SP 504 and 511 3.5*****

Notification in writing, to the commission, at least 3 business days prior to any pressure test of a gas pipeline that will have a MAOP that produces a hoop stress of twenty percent or more of the SMYS 480-93-170(1) *****Notes – In SP 007 Section 3.5*****

- In Class 3 or Class 4 locations, as defined in 49 CFR § 192.5, or within one hundred yards of a building, must be at least eight hours in duration. 480-93-170(1)(a) *****Notes – In SP 007 Section 3.5*****
- When the test medium is to be a gas or compressible fluid, each operator must notify the appropriate public officials so that adequate public protection can be provided for during the test. 480-93-170(1)(b) *****Notes – In SP 007 Section 3.5*****
- In an emergency situation where it is necessary to maintain continuity of service, the requirements of subsection (1) of this section and subsection (1)(a) may be waived by notifying the commission by telephone prior to performing the test. 480-93-170(1)(c) *****Notes – In SP 007 Section 3.5*****

Minimum test pressure for any steel service line or main, must be determined by multiplying the intended MAOP by a factor determined in accordance with the table located in 49 CFR § 192.619 (a)(2)(ii). 480-93-170(2) *****Notes – In SP 007 Section 3.2*****

Re-testing of service lines broken, pulled, or damaged, resulting in the interruption of gas supply to the customer, must be pressure tested from the point of damage to the service termination valve prior to being placed back into service. 480-93-170(4) *****Notes – In SP 725 Section 3.1*****

Maintain records of all pressure tests performed for the life of the pipeline and document information as listed under 480-93-170(7) (a-h). *****Notes – In SP 504 Section 3.6*****

Maintain records of each test where multiple pressure tests are performed on a single installation. 480-93-170(9) *****Notes – In SP 504 Section 3.6.4*****

46. Question Result, ID, References Sat, AR.PTI.EQUIPCALIB.P,

Question Text *Does the manual include procedures to maintain and calibrate pressure testing equipment in accordance with manufacturer's recommendations?*

Assets Covered 88965 (1,826)

Result Notes Pressure testing equipment must be maintained, tested for accuracy, or calibrated, in accordance with the manufacturer's recommendations.480-93-170(10) *****Notes – In SP 737*****

- When there are no manufacturer's recommendations, then tested at an appropriate schedule determined by the operator. *****Notes – In SP 737*****
- Test equipment must be tagged with the calibration or accuracy check expiration date. *****Notes – In SP 504. 3.4.2*****

PRO.SUBLODOR: Odorization Of Gas

47. Question Result, ID, References Sat, MO.GOODOR.ODORIZE.P, 192.605(b)(1) (192.625(a), 192.625(b), 192.625(c), 192.625(d), 192.625(e), 192.625(f))
- Question Text *Does the process ensure appropriate odorant levels are contained in its combustible gases in accordance with 192.625?*
- Assets Covered 88965 (1,826)
- Result Notes Use of odorant testing instrumentation/Monthly testing interval 480-93-015 (2) *****Notes – In SP 737 Section 2 policy SP 625 in under policy*****
 Odorant Testing Equipment Calibration/Intervals (Annually or Manufacturers Recommendation) 480-93-015 (3) *****Notes – In SP 737 Table 1*****
 Records maintained for usage, odorant tests performed and equipment calibration (5yrs) 480-93-015(4) *****Notes – In SP 737 Section 3.3 In SP 625 3.7*****

PRO.SUBLTAP: Tapping Pipelines Under Pressure

48. Question Result, ID, References Sat, AR.RMP.HOTTAP.P, 192.605(b)(1) (192.627)
- Question Text *Is the process adequate for tapping pipelines under pressure?*
- Assets Covered 88965 (1,826)
- Result Notes *****Notes - SPW 303 Requirements for Shutdown, Tie-In, and Startup Procedures*** The operator also has procedures in the FOM (233 results found "tapping") for: Preparing to Use a TDW-760 Tapping and Plugging Machine Cooling Times for Tapping Tees OP 145-01 Tapping Under Pressure with Tapping Machines OP 146-01 Tapping Under Pressure with Self-Tapping Fittings Tapping Under Pressure with Self-Tapping Fittings on Polyethylene Pipe Tapping Under Pressure with Georg Fischer Central Plastics High Volume Tapping Tee OP 145-02 Tapping and Completing Under Pressure with a TDW-760 OP 145-03 Tapping Under Pressure with a C1-36 Tapping Machines*****
49. Question Result, ID, References Sat, TQ.QU.HOTTAPQUAL.P, 192.627 (192.805(b))
- Question Text *Does the process require taps on a pipeline under pressure (hot taps) to be performed by qualified personnel?*
- Assets Covered 88965 (1,826)
- Result Notes *****Notes - Qualification of Pipeline Personnel SPW 801*** All tasks performed on the pipeline that meet the 4 part test are required to be performed by qualified personnel.**

PRO.SUBLPURGE: Pipeline Purging

50. Question Result, ID, References Sat, MO.GO.PURGE.P, 192.605(b)(1) (192.629(a), 192.629(b))
- Question Text *Does the process include requirements for purging of pipelines in accordance with 192.629?*
- Assets Covered 88965 (1,826)
- Result Notes (a) Lines containing **air** must be properly purged. *****Notes – In SP 727 for purging out of service. Purging into service for PE mains FOM reviewed and purging into service for services *****
 (b) Lines containing **gas** must be properly purged. *****Notes – In SP 727 for purging out of service. Purging into service for PE mains FOM reviewed and purging into service for services *****

PRO.SUBMLINEMARK: Line Marker

51. Question Result, ID, References Sat, MO.RW.ROWMARKER.P, 192.707(a) (192.707(b), 192.707(d), CGA Best Practices, v4.0, Practice 2-5, CGA Best Practices, v4.0, Practice 4-20)
- Question Text *Does the process adequately cover the requirements for placement of ROW markers?*
- Assets Covered 88965 (1,826)
- Result Notes *****Notes - Pipeline Markers - SPW 801*****

The location of company transmission lines and distribution mains must be marked as defined in this standard practice, with pipeline markers placed and maintained as close as practical to each required location to reduce the possibility of damage or interference. All buried Distribution pipelines within the

Urban Growth Boundary are considered to be Class 3 or 4 locations and do not require pipeline marking per 192.707(b)(2). The company will have maps, drawings, or other sufficient records indicating class locations and other areas where pipeline markers are required.

PROCEDURE 3.1 contains the required locations.

52. Question Result, ID, References Sat, MO.RW.MARKERSURVEY.P,
Question Text *Are procedures in place to survey pipeline markers at specified intervals?*
Assets Covered 88965 (1,826)
Result Notes *****Notes - Pipeline Markers - SPW 801*****

3.5 Inspections

1. Conduct surveys of pipeline markers (except those in sections 3.2 and 3.4) at least every 5 calendar years, but not to exceed 63 months, to maintain the markers and ensure they are visible and legible. Include a description of the system and the area surveyed in the survey records.

53. Question Result, ID, References Sat, MO.RW.MARKERREPLACE.P,
Question Text *Does the manual include procedures to replace damaged or missing markers within 45 days?*
Assets Covered 88965 (1,826)
Result Notes *****Notes - Pipeline Markers - SPW 801*****

3.5 Inspections

2. Replace markers that are reported damaged or missing within 45 days.

PRO.SUBMPATROLDIST: Distribution System Patrolling & Leakage Survey

54. Question Result, ID, References Sat, MO.RW.DISTPATROL.P, 192.721(a) (192.721(b))
Question Text *Does the process require distribution system patrolling to be conducted?*
Assets Covered 88965 (1,826)
Result Notes *****Notes – In SP 707 *****

55. Question Result, ID, References Sat, MO.RW.DISTLEAKAGE.P, 192.723(a) (192.723(b))
Question Text *Does the process require distribution system leakage surveys to be conducted?*
Assets Covered 88965 (1,826)
Result Notes *****Notes – In SP 707 Unodorized lines - Conduct leakage surveys on lines that transport natural gas without an odorant, at least monthly.*****

56. Question Result, ID, References Sat, MO.RW.CASINGLEAKSURVEY.P,
Question Text *Does the process require shorted casings be leak surveyed as required?*
Assets Covered 88965 (1,826)
Result Notes *****Notes – In SP 707 - Shorted casings or casings with inaccessible test leads - Conduct a leakage survey within 90 days of confirmation that a short exists and at least twice each calendar year thereafter, at intervals not to exceed 7½ months, until the shorted condition is eliminated or the pipe is replaced.*****

57. Question Result, ID, References Sat, MO.RW.MOVEANDLOWERSURVEY.P,
Question Text *Does the manual include procedures to leak survey not more than thirty days after a metallic pipeline has been moved or lowered?*
Assets Covered 88965 (1,826)

Result Notes *****Notes - In the FOM under Guidelines to Lower Services and Main Lines in Washington - Also in SPW 625*****

58. Question Result, ID, References Sat, MO.RW.LEAKGRADE.P,
Question Text *Do procedures require grading/re-grading leaks and evaluating the concentration and extent of leakage?*
Assets Covered 88965 (1,826)
Result Notes Grade leaks as defined in WAC 480-93-18601 to establish the leak repair priority. 480-93-186(1)
*****Notes – In SP 709 3.2 is classification. They will be classified in 5 business days Classification Guide is also available *****

59. Question Result, ID, References Sat, MO.RW.LEAKPERIMETER.P,
Question Text *Do procedures require checking the perimeter of a gas leak with a combustible gas indicator?*
Assets Covered 88965 (1,826)
Result Notes Procedure for evaluating the concentration and extent of gas leakage 480-93-186(2)
Note: Including third-party damage where there is a possibility of multiple leaks and underground migration into nearby buildings. *****Notes – In OP 501-01 *****
Use of a combustible gas indicator to check the perimeter of a leak area. Follow-up inspection on repaired leaks no later than thirty days following repair. 480-93-186(3) *****Notes – In OP 501-01 Item 19.*****

60. Question Result, ID, References Sat, MO.RW.LEAKFOLLOW.P,
Question Text *Do procedures require performing a follow-up inspection on all leak repairs with residual gas remaining in the ground not later than thirty days after the repair?*
Assets Covered 88965 (1,826)
Result Notes Follow-up inspection on repaired leaks no later than thirty days following repair. 480-93-186(3) *****Notes – Follow-up is in SP 709 *****

PRO.SUBMPATROLEAK: Transmission System Patrolling & Leakage Survey

61. Question Result, ID, References Sat, MO.RW.TRANSPATROL.P, 192.705(a) (192.705(b), 192.705(c))
Question Text *Does the process adequately cover the requirements for transmission line patrolling the ROW and conditions reported?*
Assets Covered 88965 (1,826)
Result Notes *****Notes – In SP 703 Patrolling Transmission and Distribution Lines and in SP 703 Section 3.3 for the Class location chart*****

62. Question Result, ID, References Sat, MO.RW.TRANSLEAKAGE.P, 192.706 (192.706(a), 192.706(b))
Question Text *Does the process require transmission leakage surveys to be conducted?*
Assets Covered 88965 (1,826)
Result Notes *****Notes – In SP 707*****

PRO.SUBMSVCREINSTATE: Test Requirements For Reinstating Service Lines

63. Question Result, ID, References Sat, AR.RMP.TESTREINSTATE.P, 192.605(b) (192.725(a), 192.725(b))
Question Text *Is the process adequate for the testing of disconnected service lines?*
Assets Covered 88965 (1,826)
Result Notes *****Notes – In SP 725 Section 3.1*****

PRO.SUBMABANDON: Abandonment Or Deactivation Of Facilities

64. Question Result, ID, References **Sat, MO.GM.ABANDONPIPE.P, 192.605(b)(1) (192.727(a), 192.727(b), 192.727(c), 192.727(d), 192.727(e), 192.727(f), 192.727(g))**
Question Text *Does the process include adequate requirements for the abandonment and deactivation of pipelines and facilities?*
Assets Covered **88965 (1,826)**
Result Notes *****Notes - SP-727 – Abandonment or Deactivation of Gas Facilities*****

PRO.SUBMOVERPRESS: Pressure Limiting And Regulating Station

65. Question Result, ID, References **Sat, MO.GMOPP.PRESSREGTEST.P, 192.605(b)(1) (192.739(a), 192.739(b))**
Question Text *Does the process include procedures for inspecting and testing each pressure limiting station, relief device, and pressure regulating station and their equipment?*
Assets Covered **88965 (1,826)**
Result Notes *****Notes - SPW 743*****
66. Question Result, ID, References **Sat, MO.GMOPP.PRESSREGMETER.P, 192.605(b)(1) (192.741(a), 192.741(b), 192.741(c))**
Question Text *Does the process require telemetering or recording gauges be utilized as required for distribution systems?*
Assets Covered **88965 (1,826)**
Result Notes *****Notes SP-741 – Pressure Telemetry and Recording Pressure Gauges (Chart Recorders)*****
67. Question Result, ID, References **Sat, MO.GMOPP.PRESSREGCAP.P, 192.605(b)(1) (192.743(a), 192.743(b), 192.743(c))**
Question Text *Does the process include procedures for ensuring that the capacity of each pressure relief device at pressure limiting stations and pressure regulating stations is sufficient?*
Assets Covered **88965 (1,826)**
Result Notes *****Notes - SPW 743*****
68. Question Result, ID, References **Sat, MO.GMOPP.MULTIPRESSREG.P,**
Question Text *Does the manual include procedures to install two or more regulator stations in a manner that will provide protection between the stations?*
Assets Covered **88965 (1,826)**
Result Notes *****Notes - SPW 743 Section 3.2.5 Monitor Regulators and Section 3.1 Design Requirements for Pressure Relief and Pressure Limiting Devices (District Regulators and Primary Service Regulators)*****
69. Question Result, ID, References **Sat, DC.METERREGSVC.REGTEST.P,**
Question Text *Does the manual have procedures for testing service regulators and associated safety devices during initial turn-on and when a customer experiences a pressure problem?*
Assets Covered **88965 (1,826)**
Result Notes *****Notes – SP-373 Section 3.2 (Service Regulators) has some information on this. The FOM for Activating Green Tagged Service Meters for new construction and Installing and Activating Residential Meter Sets with Standard Delivery Pressure.*****

PRO.SUBMVALVE: Valve And Vault Maintenance

70. Question Result, ID, References **Sat, MO.GM.DISTVALVEINSPECT.P, 192.605(b)(1) (192.747(a), 192.747(b))**
Question Text *Does the process include procedures for inspecting and partially operating each distribution system valve that might be required in an emergency at intervals not exceeding 15 months, but at least once each calendar year and for taking prompt remedial action to correct any valve found inoperable?*
Assets Covered **88965 (1,826)**
Result Notes *****Notes - SPW 405 and the appropriate engineering standards 3.1.3 is the spacing*****

PRO.SUBMVAULT: Vault Inspection

71. Question Result, ID, References **NA, FS.FG.VAULTINSPECT.P, 192.605(b)(1) (192.749(a), 192.749(b), 192.749(c), 192.749(d))**
Question Text *What are process requirements for inspecting vaults having a volumetric internal content of approximately 200 cubic feet (5.66 cubic meters) that house pressure regulating/limiting equipment?*
Assets Covered **88965 (1,826)**
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

PRO.SUBMIGNITE: Prevention Of Accidental Ignition

72. Question Result, ID, References **Sat, MO.GM.IGNITION.P, 192.605(b)(1) (192.751(a), 192.751(b), 192.751(c))**
Question Text *Are there processes for minimizing the danger of accidental ignition where gas constitutes a hazard of fire or explosion?*
Assets Covered **88965 (1,826)**
Result Notes *****Notes - This is in the FOM for the JHA, for leak response, Leak Classification and Repair (SP-709), but has its own section under Preventing Accidental Ignition SP - 751*****

PRO.SUBMBELLSPIGOT: Caulked Bell And Spigot Joints

73. Question Result, ID, References **NA, MO.GM.BELLSPIGOTJOINT.P, 192.753(a) (192.753(b))**
Question Text *Does the process require that caulked bell and spigot joints be correctly sealed?*
Assets Covered **88965 (1,826)**
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

PRO.SUBMCAST: Protecting Cast-Iron Pipeline

74. Question Result, ID, References **NA, MO.GM.CASTIRONPROTECT.P, 192.755(a) (192.755(b))**
Question Text *Does the process require adequate protection for segments of a buried cast-iron pipeline for which support has been disturbed?*
Assets Covered **88965 (1,826)**
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

PRO.SUBEWELD: Welding And Weld Defect Repair/removal

75. Question Result, ID, References **Sat, DC.WELDPROCEDURE.WELD.P, 192.225(a) (192.225(b))**
Question Text *Does the process require welding to be performed by qualified welders using qualified welding procedures and are welding procedures and qualifying tests required to be recorded in detail?*
Assets Covered **88965 (1,826)**
Result Notes **Use of testing equipment to record and document essential variables 480-93-080(1)(b) (eff 6/02/05) *****Notes – SP-221 Section 5.1. In OQ records, when a welder is qualified they use to testing equipment to verify essential variables.*******

Welding procedures must be qualified under Section 5 of API 1104 or Section IX of ASME Boiler and Pressure Code (2001 ed.) by destructive test. Amdt. 192-103 pub 06/09/06, eff. 07/10/06. .225(a) *Notes – SP-221 Section 3 Paragraph 1*****

Retention of welding procedure – details and test .225(b) *Notes – SP-221 Section 5.1.1*****

76. Question Result, ID, References **Sat, TQ.QUOMCONST.WELDER.P, 192.227(a) (192.225(a), 192.225(b), 192.328(a), 192.328(b))**
Question Text *Does the process require welders to be qualified in accordance with API 1104 or the ASME Boiler & Pressure Vessel Code?*
Assets Covered **88965 (1,826)**
Result Notes *****Notes – SP-221 Section 3*****

77. Question Result, ID, References Sat, TQ.QUOMCONST.WELDERLOWSTRESS.P, 192.227(b) (192.225(a), 192.225(b), 192.805(b))

Question Text Does the process require welders who perform welding on low stress pipe on lines that operate at < 20% SMYS to be qualified under Section I of Appendix C to Part 192, and are welders who perform welding on service line connection to a main required to be qualified under Section II of Appendix C to Part 192?

Assets Covered 88965 (1,826)

Result Notes May not weld on pipe that operates at < 20% SMYS unless is tested in accordance with .229(c)(1) or re-qualifies under .229(d)(1) or (d)(2). .229(c)(2) ***Notes – SP-221 Section 6.2. Limits Oxyacetylene welders to less than 20%***

Oxyacetylene welders may qualify under 49 CFR § 192 Appendix C, but may only weld the following size pipe: 480-93-080(1)(a)

- Nominal **two-inch** or smaller branch connections to nominal **six-inch** or smaller main or service pipe. 480-93-080(1)(a)(i) ***Notes – SP-221 Section 6.2***
- Nominal **two-inch** or smaller below ground butt welds 480-93-080(1)(a)(ii) ***Notes – SP-221 Section 6.2***
- Nominal **four-inch** or smaller above ground manifold and meter piping operating at 10 psig or less. 480-93-080(1)(a)(iii) ***Notes – 4" is arc welded with SMAW***
- Appendix C Welders re-qualified **2/Yr (7.5Months)** 480-93-080(1)(a)(iv) ***Notes – SP-221 Section 6.6.2***

78. Question Result, ID, References Sat, DC.WELDERQUAL.WELDERLIMITNDT.P, 192.303 (192.229(a), 192.229(b), 192.229(c), 192.229(d))

Question Text Does the process require certain limitations be placed on welders and welding operators?

Assets Covered 88965 (1,826)

Result Notes Qualified written welding procedures must be located on-site where welding is being performed 480-93-080(1)(d) ***Notes – SP-221 Section 3.1.1***

Identification and qualification cards/certificates w/name of welder/joiner, their qualifications, date of qualification and operator whose qualification procedures were followed. 480-93-080(3) (eff 6/02/05) ***Notes – SP-221 Section 3.1.2***

To weld on compressor station piping and components, a welder must successfully complete a destructive test .229(a) ***Notes – Not performed in WA.***

Welder must have used welding process within the preceding **6 months** .229(b) ***Notes – SP-221 Section 6.6.2***

A welder qualified under .227(a)... .229(c)

- May not weld on pipe that operates at \geq 20% SMYS unless within the preceding 6 calendar months the welder has had one weld tested and found acceptable under the **sections 6 or 9 of API Standard 1104**; may maintain an ongoing qualification status by performing welds tested and found acceptable at least **twice per year**, not exceeding **7½ months**; may not re-qualify under an earlier referenced edition. .229(c)(1) ***Notes – SP-221 Section 6.6.2***
- May not weld on pipe that operates at < 20% SMYS unless is tested in accordance with .229(c)(1) or re-qualifies under .229(d)(1) or (d)(2). .229(c)(2) ***Notes – SP-221 Section 6.2. Limits Oxyacetylene welders to less than 20%***

Welders qualified under .227(b) may not weld unless: .229(d)

- Re-qualified within **1 year/15 months**, or .229(d)(1) ***Notes – SP-221 Section 6.6.2***
- Within **7½ months** but at least **twice per year** had a production weld pass a qualifying test .229(d)(2) ***Notes – SP-221 Section 6.6.2***

79. Question Result, ID, References Sat, DC.WELDPROCEDURE.WELDWEATHER.P, 192.303 (192.231)

Question Text Does the process require welding to be protected from weather conditions that would impair the quality of the completed weld?

Assets Covered 88965 (1,826)
Result Notes *****Notes – SP-223 Section 3.2*****

80. Question Result, ID, References Sat, DC.WELDPROCEDURE.MITERJOINT.P, 192.303 (192.233(a), 192.233(b), 192.233(c))

Question Text *Does the process prohibit the use of certain miter joints?*

Assets Covered 88965 (1,826)

Result Notes *****Notes – SP-223 Section 3.3*****

81. Question Result, ID, References Sat, DC.WELDPROCEDURE.WELDPREP.P, 192.303 (192.235)

Question Text *Does the process require certain preparations for welding, in accordance with 192.235?*

Assets Covered 88965 (1,826)

Result Notes *****Notes SP-223 Section 3.2 Limitations for Welding 1. Conduct visual inspection of welding by an individual qualified by appropriate training and experience. 2. Protect welding operations from weather conditions that would impair weld quality. 3. Ensure welding surfaces are clean and free of detrimental material, and aligned properly. 4. Do not allow a welder whose certification and test were based on nondestructive or radiographic testing to weld on compressor station piping and appurtenances.*****

82. Question Result, ID, References Sat, DC.WELDPROCEDURE.ESSENTIAL.P,

Question Text *Does the process require documenting essential variables when qualifying welders and weld procedures?*

Assets Covered 88965 (1,826)

Result Notes *******Notes – SP-221 Section 5.1. In OQ records, when a welder is qualified they use to testing equipment to verify essential variables.*******

83. Question Result, ID, References Sat, DC.WELDINSPECTOR.WELDVISUALQUAL.P, 192.303 (192.241(a), 192.241(b), 192.241(c))

Question Text *Does the process require visual inspections of welds to be conducted by qualified inspectors?*

Assets Covered 88965 (1,826)

Result Notes *****Notes – SP-223 Section 3.2.1*****

84. Question Result, ID, References Sat, DC.WELDINSPECTOR.WELDREPAIR.P, 192.303 (192.245(a), 192.245(b), 192.245(c))

Question Text *Does the process require welds that are unacceptable to be removed and/or repaired as specified by 192.245?*

Assets Covered 88965 (1,826)

Result Notes *****Notes – SP-225 and 226*****

PRO.SUBENDT: Nondestructive Testing

85. Question Result, ID, References Sat, DC.WELDINSPECTOR.WELDNNDT.P, 192.243(a) (192.243(b), 192.243(c), 192.243(d), 192.243(e).)

Question Text *Is there a process for nondestructive testing and interpretation?*

Assets Covered 88965 (1,826)

Result Notes *****Notes – SP-223 Section 3.4*****

PRO.SUBEJOIN: Joining Of Pipeline Materials

86. Question Result, ID, References Sat, DC.CO.PLASTICJOINT.P, 192.273(b) (192.281(a), 192.281(b), 192.281(c), 192.281(d), 192.281(e), 192.303)

Question Text *Does the process require plastic pipe joints to be designed and installed in accordance with 192.281?*

Assets Covered 88965 (1,826)

Result Notes A plastic pipe joint that is joined by solvent cement, adhesive, or heat fusion may not be disturbed until it has properly set. Plastic pipe may not be joined by a threaded joint or miter joint. 281(a) *****Notes – SP-250 Section 3.3*****

Each solvent cement joint on plastic pipe must comply with the following: .281(b)

- The mating surfaces of the joint must be clean, dry, and free of material which might be detrimental to the joint. .281(b)(1) *****Notes – SP-250 Section 3.2 Limitations*****
- The solvent cement must conform to ASTM Designation: D 2513. .281(b)(2) *****Notes – SP-250 Section 3.2 Limitations*****
- The joint may not be heated to accelerate the setting of the cement. .281(b)(3) *****Notes – SP-250 Section 3.2 Limitations*****

Each heat-fusion joint on plastic pipe must comply with the following: .281(c)

- A butt heat-fusion joint must be joined by a device that holds the heater element square to the ends of the piping, compresses the heated ends together, and holds the pipe in proper alignment while the plastic hardens. .281(c)(1) *****Notes – SP-250 Section 3.3*****
- A socket heat-fusion joint must be joined by a device that heats the mating surfaces of the joint uniformly and simultaneously to essentially the same temperature. .281(c)(2) *****Notes – SP-250 Section 3.2 Limitations*****
- An electrofusion joint must be joined utilizing the equipment and techniques of the fittings manufacturer or equipment and techniques shown, by testing joints to the requirements of §192.283(a)(1)(iii), to be at least equivalent to those of the fittings manufacturer. .281(c)(3) *****Notes – SP-250 Section 3.4*****
- Heat may not be applied with a torch or other open flame. .281(c)(4) *****Notes – SP-250 Section 3.2 Limitations*****

Each adhesive joint on plastic pipe must comply with the following: .281(d)

- The adhesive must conform to ASTM Designation: D 2517. .281(d)(1) *****Notes – SP-250 Section 3.2 Limitations*****
- The materials and adhesive must be compatible with each other. .281(d)(1) *****Notes – SP-250 Section 3.2 Limitations*****

87. Question Result, ID, References Sat, DC.CO.PLASTICJOINTPROCEDURE.P, 192.273(b) (192.283(a), 192.283(b), 192.283(c), 192.283(d))
 Question Text *Does the process require plastic pipe joining procedures to be qualified in accordance with 192.283, prior to making plastic pipe joints?*
 Assets Covered 88965 (1,826)
 Result Notes *****Notes – SP-250 Section 2 NWN does not qualify their own plastic procedures – they use the manufacturers.*****
88. Question Result, ID, References Sat, DC.CO.PLASTICJOINTQUAL.P, 192.285(d) (192.285(a), 192.285(b), 192.285(c), 192.805)
 Question Text *Is a process in place to ensure that personnel making joints in plastic pipelines are qualified?*
 Assets Covered 88965 (1,826)
 Result Notes *****Notes – SP-250 Section 3.7*****
89. Question Result, ID, References Sat, DC.CO.PLASTICJOINTINSPECTION.P, 192.287 (192.805(h))
 Question Text *Is a process in place to assure that persons who inspect joints in plastic pipes are qualified?*
 Assets Covered 88965 (1,826)
90. Question Result, ID, References Sat, DC.CO.PLASTICPIPEPROC.P,
 Question Text *Do procedures include requirements for storage, handling and installation of plastic pipe, including limits for ultraviolet exposure?*
 Assets Covered 88965 (1,826)
 Result Notes *****Notes - SP-059 Lists 3 years max UV exposure*****
91. Question Result, ID, References Sat, DC.CO.PLASTICWEAKLINK.P,
 Question Text *Does the manual include procedures for installing a weak link when pulling plastic pipe?*
 Assets Covered 88965 (1,826)
 Result Notes *****Notes - SP-160 Section 3.4.4.4*****

92. Question Result, ID, References **Sat, DC.CO.PLASTICPIPESEP.P,**
 Question Text *Does the manual include procedures to ensure minimum separation requirements are met for plastic pipelines?*
 Assets Covered **88965 (1,826)**
 Result Notes *****Notes - SP-160 Section 3.5.2*****
93. Question Result, ID, References **Sat, DC.CO.PLASTICABOVEGROUND.P,**
 Question Text *Does the manual include procedures for temporary above ground plastic pipe installation as well as procedures for commission notification for installations longer than thirty days?*
 Assets Covered **88965 (1,826)**
 Result Notes *****Notes - SP-160 Section 3.4.6 Aboveground Temporary Installation Temporary installation of uncased PE pipe aboveground for a maximum of 30 days is permitted with the approval of the Director of Engineering. Monitor and protect from potential damage during that time. Installation of uncased PE pipe aboveground longer than 30 days is permitted if a written monitoring program is followed, and the WUTC is notified by telephone before exceeding the 30-day limit.*****
94. Question Result, ID, References **Sat, DC.CO.PLASTICBACKFILL.P,**
 Question Text *Does the manual include procedures to bury plastic pipe with essentially rock-free material or material recommended by the manufacturer?*
 Assets Covered **88965 (1,826)**
 Result Notes *****Notes - SP - 160 Section - 3.5.4 Backfill: Ensure material used for backfill is free of materials that could damage the pipe or its coating. 1. Place sand padding around the pipe if excavated material is not suitable for direct contact with the pipe. 2. May use any excavated material as backfill 6 inches or more away from the pipe. 3. Place the backfill in such a manner that will not damage the integrity of the conduit for pipe installed in plastic conduit.*****
95. Question Result, ID, References **Sat, DC.CO.PLASTICSQUEEZING.P,**
 Question Text *Does the manual include procedures for restrictions on squeezing of plastic pipe?*
 Assets Covered **88965 (1,826)**
 Result Notes *****Notes SP-160 Section 3.4.2 Squeeze Restrictions 1. Do not squeeze PE pipe more than one time in the same location. 2. Do not squeeze PE pipe within 12 inches or 3 pipe diameters, whichever is greater, from any fusion joint, mechanical connection, prior squeeze-off point, or second squeeze-off tool.*****
96. Question Result, ID, References **Sat, MO.GM.EQUIPPLASTICJOINT.P, 192.605(b)(1) (192.756)**
 Question Text *Does the process require maintaining equipment used in joining plastic pipe in accordance with the manufacturer's recommended practices or with written procedures that have been proven by test and experience to produce acceptable joints?*
 Assets Covered **88965 (1,826)**
 Result Notes *****Notes SP-250 - For electrofusion, the joint must be joined utilizing the equipment and techniques of the fittings manufacturer, by testing joints to the requirements of 192.283 (a)(1)(iii), to be at least equivalent to those of the fittings manufacturer. For butt fusions, The FOM contains maintenance information under:**
- **Fusing Pipe Using a Number 14 Butt Fusion Machine**
 - **Fusing Pipe Using a Number 28 Butt Fusion Machine*****

PRO.SUBICORROSION: Corrosion Control

97. Question Result, ID, References **Sat, TD.COAT.NEWPIPE.P, 192.605(b)(2) (192.455(a), 192.455(b), 192.455(c), 192.455(d), 192.461(a), 192.461(b), 192.463, 192.483(a))**

- Question Text *Does the process require that each buried or submerged pipeline installed after July 31, 1971 be externally coated with a material that is adequate for underground service on a cathodically protected pipeline?*
- Assets Covered 88965 (1,826)
- Result Notes ***** Notes SP 455 Section 4*****
98. Question Result, ID, References Sat, TQ.QU.CORROSION.P, 192.453 (192.805(b))
- Question Text *Does the process require corrosion control procedures to be carried out by, or under the direction of, qualified personnel?*
- Assets Covered 88965 (1,826)
- Result Notes *****Notes – SP 455 Section 3*****
99. Question Result, ID, References Sat, TD.COAT.CONVERTPIPE.P, 192.605(b)(2) (192.452(a), 192.455(a), 192.455(b), 192.455(c), 192.455(d), 192.461(a))
- Question Text *Does the process require that each buried or submerged pipeline that has been converted to gas service and was installed after July 31, 1971, be protected against external corrosion with an adequate coating unless exempted by 192.455(b)?*
- Assets Covered 88965 (1,826)
- Result Notes ***** Notes SP 455 Section 4*****
100. Question Result, ID, References Sat, TD.CP.POST1971.P, 192.605(b)(2) (192.455(a), 192.457(a), 192.452(a), 192.452(b), 192.455(c), 192.455(d))
- Question Text *Does the process require that each buried or submerged pipeline installed after July 31, 1971, be protected against external corrosion with a cathodic protection system within 1 year after completion of construction, conversion to service, or becoming jurisdictional onshore gathering?*
- Assets Covered 88965 (1,826)
- Result Notes ***** Notes SP 455 Section 4.1.2*****
101. Question Result, ID, References Sat, TD.CP.PRE1971.P, 192.605(b)(2) (192.457(b))
- Question Text *Does the process require that pipelines installed before August 1, 1971 (except for cast and ductile iron lines) which are 1) bare or ineffectively coated transmission lines, or 2) bare or coated pipes in compressor, regulator or meter stations, or 3) bare or coated distribution lines, must be cathodically protected in areas where active corrosion is found?*
- Assets Covered 88965 (1,826)
- Result Notes ***** Notes SP 455 Section 4*****
102. Question Result, ID, References Sat, TD.CPEXPOSED.EXPOSEINSPECT.P, 192.605(b)(2) (192.459)
- Question Text *Does the process require that exposed portions of buried pipeline must be examined for external corrosion?*
- Assets Covered 88965 (1,826)
- Result Notes ***** Notes SP 459 Section 3.1 External Inspection 1. Whenever the company has knowledge of any exposure of a buried pipeline where a physical examination of the pipe is possible, inspect the pipe for the applicable conditions listed below. If external corrosion requiring remedial action under CFR 192.483 through 192.489 is found, continue to investigate circumferentially and longitudinally beyond the exposed portion (by visual examination, indirect method, or both) to determine if additional corrosion requiring remedial action exists in the vicinity. *****
103. Question Result, ID, References Sat, TD.CPEXPOSED.EXPOSECORRODE.P, 192.605(b)(2) (192.459)
- Question Text *Does the process require further examination of exposed buried pipe if corrosion is found?*
- Assets Covered 88965 (1,826)
- Result Notes ***** Notes SP 459 Section 3.1 External Inspection 1. Whenever the company has knowledge of any exposure of a buried pipeline where a physical examination of the pipe is possible, inspect the pipe for the applicable conditions listed below. If external corrosion requiring remedial action under CFR 192.483 through 192.489 is found, continue to investigate circumferentially and longitudinally beyond the exposed portion (by visual examination, indirect method, or both) to determine if additional corrosion requiring remedial action exists in the vicinity. *****

104. Question Result, ID, References Sat, TD.CPEXPOSED.MONITORCRITERIA.P, 192.605(b)(2) (192.463(a), 192.463(c))
 Question Text *Does the process require CP monitoring criteria to be used that is acceptable?*
 Assets Covered 88965 (1,826)
 Result Notes *****Notes – SP 463 Section 3.1 Standard Cathodic Protection Criteria *****
105. Question Result, ID, References Sat, TD.CPMONITOR.TEST.P, 192.605(b)(2) (192.465(a))
 Question Text *Does the process adequately describe how to monitor CP that has been applied to pipelines?*
 Assets Covered 88965 (1,826)
 Result Notes *****Notes – SP 463 Section 3.1 Standard Cathodic Protection Criteria *****
106. Question Result, ID, References Sat, TD.CPMONITOR.CURRENTTEST.P, 192.605(b)(2) (192.465(b))
 Question Text *Does the process give sufficient details for making electrical checks of rectifiers or impressed current sources?*
 Assets Covered 88965 (1,826)
 Result Notes *****Notes – CP 465 for classification of survey types. For example, SP 467 has isolation and follow-up *****
107. Question Result, ID, References Sat, TD.CPMONITOR.REVCURRENTTEST.P, 192.605(b)(2) (192.465(c))
 Question Text *Does the process give sufficient details for making electrical checks of interference bonds, diodes, and reverse current switches?*
 Assets Covered 88965 (1,826)
 Result Notes *****Notes - SP- 465 Section 3.5 - Interference Bond Survey Electrically check each interference bond for proper performance 6 times each calendar year, at intervals not to exceed 2½ months.*****
108. Question Result, ID, References Sat, TD.CPMONITOR.DEFICIENCY.P, 192.605(b)(2) (192.465(d))
 Question Text *Does the process require that the operator promptly correct any identified deficiencies in corrosion control?*
 Assets Covered 88965 (1,826)
 Result Notes ***** Notes SP 483 3.1.2 *****
109. Question Result, ID, References NA, TD.CP.UNPROTECT.P, 192.605(b)(2) (192.465(e))
 Question Text *Does the process give sufficient direction for the monitoring of external corrosion on buried pipelines that are not protected by cathodic protection?*
 Assets Covered 88965 (1,826)
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
110. Question Result, ID, References Sat, FS.FG.CASING.P,
 Question Text *Does the manual include procedures to only install bare steel casings and to include test leads on all new casings?*
 Assets Covered 88965 (1,826)
 Result Notes *****Notes – ES 13-003 has casing of bare steel 2.2 Please see the response to Question 21 for the second portion regarding test leads. (Repeat question)*****
111. Question Result, ID, References Sat, FS.FG.CASESEAL.P,
 Question Text *Does the manual include procedures to seal the ends of casings and conduits for mains and transmission and to seal the end nearest a building for service lines?*
 Assets Covered 88965 (1,826)
 Result Notes *****Notes – SP-160 3.4.4 contains this for sealing of service lines. ES 13-003 has casing of bare steel 2.2*****
112. Question Result, ID, References Sat, TD.CP.ELECISOLATE.P, 192.605(b)(2) (192.467(a), 192.467(b), 192.467(c), 192.467(d), 192.467(e))

Question Text *Does the process give adequate guidance for electrically isolating each buried or submerged pipeline from other metallic structures unless they electrically interconnect and cathodically protect the pipeline and the other structures as a single unit?*

Assets Covered 88965 (1,826)

Result Notes ***** Notes SP 467 *****

113. Question Result, ID, References Sat, TD.CP.CASINGINSPECT.P,

Question Text *Does the process give sufficient direction for conducting annual casing inspections to ensure electrical isolation from the pipeline?*

Assets Covered 88965 (1,826)

Result Notes ***** Notes SP 465 Section 3.3 *****

114. Question Result, ID, References Sat, TD.CP.MONITOR.TESTSTATION.P, 192.469

Question Text *Does the process contain provisions to assure that each pipeline has sufficient test stations or other contact points to determine the adequacy of cathodic protection?*

Assets Covered 88965 (1,826)

Result Notes ***** Notes SP 469 Policy*****

115. Question Result, ID, References Sat, TD.CP.MONITOR.TESTLEAD.P, 192.605(b)(2) (192.471(a), 192.471(b), 192.471(c))

Question Text *Does the process provide adequate instructions for the installation of test leads?*

Assets Covered 88965 (1,826)

Result Notes ***** Notes SP 469 Section 3.2*****

116. Question Result, ID, References Sat, TD.CP.MONITOR.INTFRCURRENT.P, 192.605(b)(2) (192.473(a))

Question Text *Does the operator have a program in place to minimize detrimental effects of interference currents on its pipeline system and does the process for designing and installing cathodic protection systems provide for the minimization of detrimental effects of interference currents on existing adjacent metallic structures?*

Assets Covered 88965 (1,826)

Result Notes ***** Notes SP 465 Section 3.5 *****

117. Question Result, ID, References Sat, TD.ICP.CORRGAS.P, 192.605(b)(2) (192.475(a))

Question Text *Does the process require that the corrosive effect of the gas in the pipeline be investigated and if determined to be corrosive, steps be taken to minimize internal corrosion?*

Assets Covered 88965 (1,826)

Result Notes ***** Notes SP 459 Section 3.2 ***** 3.2 Internal Inspection Whenever any section of steel pipe is removed from a pipeline for any reason, the internal surface must be inspected for evidence of internal corrosion. If internal corrosion is discovered, the pipe and adjacent pipe will be investigated to evaluate the extent of the internal corrosion. Actions will be taken, as necessary, to remediate the existing condition and prevent further internal corrosion. Findings will be documented and the Integrity group will be notified for further evaluation, and reporting in accordance with SPW 005. The Company will also monitor gas quality data that is available from upstream suppliers. If there is a failure to meet specifications established in the Tariff.

118. Question Result, ID, References Sat, TD.ICP.EXAMINE.P, 192.605(b)(2) (192.475(a), 192.475(b))

Question Text *Does the process direct personnel to examine removed pipe for evidence of internal corrosion?*

Assets Covered 88965 (1,826)

Result Notes ***** Notes SP 459 Section 3.2 ***** 3.2 Internal Inspection Whenever any section of steel pipe is removed from a pipeline for any reason, the internal surface must be inspected for evidence of internal corrosion. If internal corrosion is discovered, the pipe and adjacent pipe will be investigated to evaluate the extent of the internal corrosion. Actions will be taken, as necessary, to remediate the existing condition and prevent further internal corrosion. Findings will be documented and the Integrity group will be notified for further evaluation, and reporting in accordance with SPW 005. The Company will also monitor gas quality data that is available from upstream suppliers. If there is a failure to meet specifications established in the Tariff.

119. Question Result, ID, References Sat, TD.ICP.CORRGASACTION.P, 192.605(b)(2) (192.477)

Question Text *Does the process give adequate direction for actions to be taken if corrosive gas is being transported by pipeline?*

Assets Covered 88965 (1,826)

Result Notes ***** Notes SP 459 Section 3.2 ***** 3.2 Internal Inspection Whenever any section of steel pipe is removed from a pipeline for any reason, the internal surface must be inspected for evidence of internal corrosion. If internal corrosion is discovered, the pipe and adjacent pipe will be investigated to evaluate the extent of the internal corrosion. Actions will be taken, as necessary, to remediate the existing condition and prevent further internal corrosion. Findings will be documented and the Integrity group will be notified for further evaluation, and reporting in accordance with SPW 005. The Company will also monitor gas quality data that is available from upstream suppliers. If there is a failure to meet specifications established in the Tariff.

120. Question Result, ID, References Sat, TD.ATM.ATMCORRODE.P, 192.605(b)(2) (192.479(a), 192.479(b), 192.479(c))

Question Text *Does the process give adequate guidance identifying atmospheric corrosion and for protecting above ground pipe from atmospheric corrosion?*

Assets Covered 88965 (1,826)

Result Notes ***** Notes SP 480 Table in Section 4.*****

121. Question Result, ID, References Sat, TD.ATM.ATMCORRODEINSP.P, 192.605(b)(2) (192.481(a), 192.481(b), 192.481(c))

Question Text *Does the process give adequate instruction for the inspection of aboveground pipeline segments, including inside meter and pressure regulator installations, for atmospheric corrosion?*

Assets Covered 88965 (1,826)

Result Notes ***** Notes SP 480 Table in Section 4.*****

122. Question Result, ID, References Sat, AR.RCOM.REPAIR.P, 192.605(b)(2) (192.485(a), 192.485(b), 192.487(a), 192.487(b), 192.489(a), 192.489(b), 192.491(c))

Question Text *Does the process give sufficient guidance for personnel to repair or replace pipe that has corroded to an extent that there is no longer sufficient remaining strength in the pipe wall?*

Assets Covered 88965 (1,826)

Result Notes ***** Notes SP 483 Section 3.1.1 *****

123. Question Result, ID, References Sat, TD.CP.RECORDS.P, 192.605(b)(2) (192.491(a), 192.491(b), 192.491(c))

Question Text *Does the process include records requirements for the corrosion control activities listed in 192.491?*

Assets Covered 88965 (1,826)

Result Notes ***** Notes SP 465 Section 3.7 *****

MISCTOPICS.PUBAWARE: Public Awareness Program Effectiveness

124. Question Result, ID, References NA, PD.PA.MSTRMETER.P, 192.616(j) (192.616(h)) (also presented in: PRO.SUBLPUBAWARE)

Question Text *Does the public awareness program for a master meter or petroleum gas system meet the requirements of Part 192?*

Assets Covered 88965 (1,826)

Result Notes No such relevant facilities/equipment existed in the scope of inspection review.

Report Parameters: Results: all

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.

FORM V Gas OM/Procedures 8281

UTC O&M/Procedures Inspection Report
Intrastate GAS
FORM V Gas OM/Procedures: State-Specific
Requirements

**** THIS FORM IS REQUIRED FOR USE FOR ALL INTRASTATE GAS OPERATORS. USE IN CONJUNCTION WITH THE "BASELINE PROCEDURES" MODULE IN THE MOST CURRENT WA-SPECIFIC GD QUESTION SET**

Inspector and Operator Information

Inspection ID	Inspection Link	Inspector - Lead	Inspector - Assist
8281	8281	Cullom, David	
Operator	Unit	Records Location - City & State	
Northwest Natural	NWN- HQ	Portland, Oregon	
Inspection Start Date	Inspection Exit Interview Date	Engineer Submit Date	
02-03-2021	02-04-2021	02-18-2021	

You must include the following in your inspection summary:

- *Inspection Scope and Summary
- *Facilities visited and Total AFOD
- * Summary of Significant Findings
- * Primary Operator contacts and/or participants

Inspection Scope and Summary

This inspection consisted of a Plan and Procedure Review of Northwest Natural's Standard Practices, the Field Operation Manual (FOM), and Emergency Response Procedures. The evaluation covered CFR 49 Part 191, 192, ADBs, best practices, and WAC 480-93 regulations.

Facilities visited and Total AFOD

No facilities were visited. AFODs - 7 (Remote due to CV-19)

Summary of Significant Findings

No probable violations or areas of concern were noted.

Primary Operator contacts and/or participants

Regulatory Contact - Compliance Engineer - Margaret Locke - margaret.locke@nwnatural.com

Regulatory Contact - Code Compliance Specialist - Jaimie Lemke - jaimie.lemke@nwnatural.com

Regulatory Contact - Sr. Manager of Compliance - Ryan Truair - ryan.truair@nwnatural.com

Regulatory Contact - Code Compliance Specialist - Samantha Rookstool - samantha.rookstool@nwnatural.com

Operator executive contact and mailing address for any official correspondence

Formal Correspondence - Vice President of Engineering and Utility Operations - Jon G. Huddleston - jon.huddleston@nwnatural.com

250 Southwest Taylor Street, Portland, Oregon 97204

Instructions and Ratings Definitions

INSTRUCTIONS	INSPECTION RESULTS		Unanswered Questions	Unanswered Questions List
S - Satisfactory	Satisfactory Responses 36	Satisfactory List 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,	1	37
U - Unsatisfactory	Unsatisfactory Responses 0	Unsatisfactory List		
Area Of Concern	Area of Concern Responses 0	Area of Concern List		
N/A- Not Applicable (does not apply to this operator or system)	Not Applicable Responses 0	Not Applicable List		
N/C - Not Checked/Evaluated (was not inspected during this inspection)	Not Checked / Evaluated Responses 0	Not Checked / Evaluated List		

****If an item is marked Unsat, AOC, N/A, or N/C, an explanation must be included in the "Notes" block for that question, and summarized in the "PROCEDURES: SUMMARY OF REQUIRED COMMENTS" section at the end of this form.**

INTRASTATE GAS OPERATOR PROCEDURES

MAPPING PROCEDURES

Question 1

Do procedures require accurate maps (or updates) of pipelines operating over 250PSIG to specifications developed by the commission and sufficient to meet the needs of first responders?

Q1 Reference
RCW 81.88.080

Q1 Result
Satisfactory

Q1 Notes

Notes - SP-007 Section 3.7.5 contains this.

Question 2

Do procedures require that NPMS submissions are updated every 12 months if system modifications (excludes distribution lines and gathering lines) occurred, and if no modifications occurred an email to that effect was submitted to NPMS?

Q2 Reference

PHMSA ADB 08-07

Q2 Result

Satisfactory

Q2 Notes

Notes – SP-007 Section 3.7.4 contains this.

REPORTING PROCEDURES

Question 3

Do procedures specify that records, maps, and drawings of gas facilities are updated not later than six months from completion of construction activity and made available to appropriate personnel?

Q3 Reference

WAC 480-93-018(5)

Q3 Result

Satisfactory

Q3 Notes

Notes – SP-007 Section 3.2.5 contains this.

Question 4

Do procedures require the submission of an annual report (Due March 15 for the preceding calendar year) on construction defects and material failures that resulted in leaks?

Q4 Reference

WAC 480-93-200(10)(b)

Q4 Result

Satisfactory

Q4 Notes

Notes – SP-003 Section 3.2 contains this.

Question 5

Do procedures require the operator to submit updated name, address, and phone numbers of emergency contacts/responsible officials to the commission and appropriate officials of ALL municipalities in which the company has pipeline facilities? Do the procedures require immediate notification to the commission and municipal authorities if an emergency point of contact changes?

Q5 Reference

WAC 480-93-200(11)

Q5 Result

Satisfactory

Q5 Notes

Notes – SP-619 Section 3.2 contains this.

Question 6

Do procedures require submission of a written report, within 5 days of completion of the failure analysis of any incident or hazardous condition due to construction defects or material failures?

Q6 Reference

WAC 480-93-200(6)

Q6 Result

Satisfactory

Q6 Notes

Notes – SP-002 Section 3.4.2 contains this.

Question 7

Do procedures describe the process for damage reporting requirements outlined in RCW 19.122.053(3) and WAC 480-93-200 (7), (8) and (9)?

Q7 Reference

RCW 19.122.053

Q7 Reference 2

WAC 480-93-200(7) (8) and (9)

Q7 Result

Satisfactory

Q7 Notes

480-93-200(7)(a) ***Notes – SP-605 and 007 also contains this.***

480-93-200(7)(b) ***Notes – SP-007 3.7.2 contains this.***

480-93-200(7)(c) ***Notes – SP-605 Section 4 contains this.***

480-93-200(8)(a) ***Notes – SP-605 Section 4 contains this.***

480-93-200(8)(b) ***Notes – SP-605 Section 4 contains this.***

480-93-200(8)(c) ***Notes – SP-605 Section 4 contains this.***

480-93-200(9)(b) ***Notes – SP-605 Section 4 contains this.***

Question 8

Do procedures require that the operator file with the commission, not later than March 15 of each year, applicable to the preceding calendar year: copy of every Pipeline and Hazardous Materials Safety Administration (PHMSA) F-7100.1-1 and F-7100.2-1 annual report required by U.S. Department of Transportation, Office of Pipeline Safety

Q8 Reference

WAC 480-93-200(10)

Q8 Result

Satisfactory

Q8 Notes

Notes – SP-003 Section 3.1 contains this.

DAMAGE PREVENTION PROCEDURES

Question 9

Are operator's locating and excavation procedures in compliance with all RCW 19.122 requirements for facility operators?

Q9 Reference

RCW 19.122

Q9 Result

Satisfactory

Q9 Notes

Notes – This is maintained in OQ 137-02 and in SP605 covers timeline in Section 3.2

Question 10

Do the procedures require that the operator provide the following information to excavators who damage pipeline facilities? Notification requirements for excavators under RCW 19.122.050(1) A description of the excavator's responsibilities for reporting damages under RCW 19.122.053; and Information concerning the safety committee referenced under RCW 19.122.130, including committee contact information, and the process for filing a complaint with the safety committee.

Q10 Reference

RCW 19.122

Q10 Reference 2

WAC 480-93-200(8)

Q10 Result

Satisfactory

Q10 Notes

Notification requirements for excavators under RCW 19.122.050(1) 200(8)(a) ***Notes – SP-605 Section 4 contains this.***

A description of the excavator's responsibilities for reporting damages under RCW 19.122.053; and 200(8)(b) ***Notes – SP-605 Section 4 contains this.***

Information concerning the safety committee referenced under RCW 19.122.130, including committee contact information, and the process for filing a complaint with the safety committee. 200(8)(c) ***Notes – SP-605 Section 4 contains this.***

Question 11

Do the procedures outline a process by which the operator reports to the commission when the operator or its contractor observes or becomes aware of any of the following activities? An excavator digs within thirty-five feet of a transmission pipeline, as defined by RCW 19.122.020(26) without first obtaining a facilities locate; A person intentionally damages or removes marks indicating the location or presence of pipeline facilities.

Q11 Reference

RCW 19.122

Q11 Result

Satisfactory

Q11 Notes

Notes – SP-605 Section 4 contains this.

Question 12

Do procedures include the use of a quality assurance program for monitoring the locating and marking of facilities? Does the procedure require regular field audits of the performance of locators/contractors and implementing appropriate corrective action when necessary?

Q12 Reference

PHMSA State Program Question

Q12 Result

Satisfactory

Q12 Notes

Notes – The QA program includes inspection work of company and contractors employees. There is a standalone program document.

Question 13

Do procedures outline a process by which locator and excavator personnel are properly qualified in accordance with the operator's OQ plan and with state OQ requirements?

Q13 Reference

WAC 480-93-013

Q13 Result

Satisfactory

Q13 Notes

Notes – The QA/OQ programs are managed under the same department.

Question 14

Does the operator have sufficiently detailed directional drilling/boring procedures which include taking actions necessary to protect their facilities from dangers posed by drilling/other trenchless technologies?

Q14 Reference

PHMSA State Programs Emphasis

Q14 Result

Satisfactory

Q14 Notes

Notes - In FOM Guidelines for HDD Installations When Paralleling Underground Structures

Question 15

Does the operator have a sufficiently detailed procedure to review records of accidents and failures caused by excavation damage to ensure the causes of those failures are addressed to minimize the possibility of reoccurrence?

Q15 Reference

PHMSA State Programs Emphasis

Q15 Result

Satisfactory

Q15 Notes

Notes – There is a risk based locating assessment. Prior history of damage is stored and evaluated.*

DESIGN/CONSTRUCTION PROCEDURES

Question 16

Does the operator have sufficiently detailed procedures to ensure materials meet minimum requirements prescribed for the selection and qualification of pipe and components for use in all of their facilities, as described in Part 192, Subpart B? See 192.51, 192.55(Steel), 192.59(Plastic)

Q16 Reference

Part 192, Subpart B

Q16 Result

Satisfactory

Q16 Notes

For steel pipe, manufactured in accordance with and meet the listed specification found under Appendix B 192.55 ***Notes - MTS-001 contains this***

For new plastic pipe, qualified for use under this part if: 192.59(a)

- It is manufactured in accordance with a listed specification; and 192.59(a)(1)
- It is resistant to chemicals with which contact may be anticipated. 192.59(a)(2) ***Notes - MTS-003 contains this***

For used plastic pipe, qualified for use under this part if: 192.59(b)

- It was manufactured in accordance with a listed specification; 192.59(b)(1)
- It is resistant to chemicals with which contact may be anticipated; 192.59(b)(2)
- It has been used only in natural gas service. 192.59(b)(3)(4)
- Its dimensions are still within the tolerances of the specification to which it was manufactured; and, 192.59(b)
- It is free of visible defects. 192.59(b)(5) ***Notes - SP160 3.3.2***

Marking of Materials 192.63 ***Notes - SP160 3.3.1 and SP 063***

Question 17

Does the operator have sufficiently detailed procedures to assure that they are meeting minimum requirements for design of their pipeline systems in accordance with Part 192, Subpart C? Are the procedures consistent with the requirements in parts 192.103, 192.105 for steel and parts 192.121 and 192.123 for plastic?

Q17 Reference

Part 192, Subpart C

Q17 Result

Satisfactory

Q17 Notes

Pipe designed of sufficient wall thickness, or installed with adequate protection, to withstand anticipated external pressures and loads that will be imposed on the pipe after installation. 192.103 ***Notes - EP-D2 ***
Design formula for steel pipe. 192.105(a) ***Notes - EP-D2 ***
Yield strength (S) for steel pipe. 192.107 ***Notes - EP-D2 Section 3.2.3***
Nominal wall thickness (t) for steel pipe. 192.109 (a) & (b) (a) If the nominal wt is not known..... Determined by measuring the thickness of each piece of pipe at quarter points on one end unless..... (b) If the pipe is of uniform grade, size, and thickness and more than 10 lengths of pipeline, only 10 percent of the individual lengths, but not less than 10 lengths, need be measured. The thickness of the lengths that are not measured must be verified by applying a gauge set to the minimum thickness found by the measurement. The nominal wall thickness to be used in the design formula in §192.105 is the next wall thickness found in commercial specifications that is below the average of all the measurements taken. However, the nominal wall thickness used may not be more than 1.14 times the smallest measurement taken on pipe less than 20 inches (508 millimeters) in outside diameter, nor more than 1.11 times the smallest measurement taken on pipe 20 inches (508 millimeters) or more in outside diameter. ***Notes - EP-D2 Section 3.2.3***
Design factor (F) for steel pipe. 192.111 (a) Except as otherwise provided in paragraphs (b), (c), and (d) of this section, the design factor to be used in the design formula in §192.105 is determined in accordance with the following Class location Design factor (F) table. Class 1 0.72, Class 2 0.60, Class 3 0.50, Class 4 0.40 ***Notes - EP-D2 Section 3.2.3*** (b) A design factor of 0.60 or less must be used in the design formula in §192.105 for steel pipe in Class 1 locations that: (1) Crosses the right-of-way of an unimproved public road, without a casing; (2) Crosses without a casing, or makes a parallel encroachment on, the right-of-way of either a hard surfaced road, a highway, a public street, or a railroad; (3) Is supported by a vehicular, pedestrian, railroad, or pipeline bridge; or (4) Is used in a fabricated assembly, (including separators, mainline valve assemblies, cross-connections, and river crossing headers) or is used within five pipe diameters in any direction from the last fitting of a fabricated assembly, other than a transition piece or an elbow used in place of a pipe bend which is not associated with a fabricated assembly. ***Notes - EP-D2 Section 3.2.4*** (c) For Class 2 locations, a design factor of 0.50, or less, must be used in the design formula in §192.105 for uncased steel pipe that crosses the right-of-way of a hard surfaced road, a highway, a public street, or a railroad. ***Notes - EP-D2 Section 3.2.4*** (d) For Class 1 and Class 2 locations, a design factor of 0.50, or less, must be used in the design formula in §192.105 for: (1) Steel pipe in a compressor station, regulating station, or measuring station, and (2) Steel pipe, including a pipe riser, on a platform located offshore or in inland navigable waters. ***Notes - EP-D2 Section 3.2.4***
Longitudinal joint factor (E) for steel pipe. 192.113 ***Notes - EP-D2 Section 3.2.3***
Temperature derating factor (T) for steel pipe. 192.115 ***Notes - EP-D2 Section 3.2.3***
For Plastic Pipe
Subject to the limitations of §192.123, for determining the design pressure for plastic pipe in accordance with either formula listed. 192.121***Notes - EP-D2 Section 3.1***

Question 18

Does the operator have sufficiently detailed procedures to ensure that notice of proposed new construction, or replacement of existing gas transmission lines greater than 100 feet in length is provided in a complete and timely manner in accordance with WAC 480-93-160?

Q18 Reference

WAC 480-93-160

Q18 Result

Satisfactory

Q18 Notes

***Notes - In SP 007 Section 3.4 ***

Question 19

Does the operator have a sufficiently detailed procedure that ensures each new transmission line and each replacement of line pipe, valve, fitting, or other line component of a transmission line is designed and constructed to accommodate the passage of instrumented internal inspection devices?

Q19 Reference

WAC 480-93-180

Q19 Result

Satisfactory

Q19 Notes

Notes - SP-150 Section 3.1 contains this.

Question 20

Does the operator have sufficiently detailed procedures that account for all Part 192, Subpart D requirements for design of pipeline components?

Q20 Reference
Part 192, Subpart D

Q20 Result
Satisfactory

Q20 Notes

For steel valves; meeting the minimum requirements of API 6D, or other standard that provides an equivalent performance level. 192.145 (a) thru (e) ***Notes – SP53 mentions PRISM. The policy statement mentions compliance CFR. ES 04-004 and 04-005 reviewed***
For each flange or flange accessory (other than cast iron) must meet the minimum requirements of ASME/ANSI B16.5, MSS SP-44, or the equivalent. 192.147 (a) thru (c) ***Notes ES 02-001***
For ensuring that each new transmission line and each replacement of line pipe, valve, fitting, or other line component in a transmission line is designed and constructed to accommodate the passage of instrumented internal inspection devices. 192.150 (a) thru (c) ***Notes – SP-150 contains this.*** ***This question was also answered in Question 19 on this form***
Components fabricated by welding. 192.153 (a) thru (d) ***Notes – SP-221 contains this.***
Welded branch connections. 192.155 ***Notes – EP-D-12 Section 3.1 contains this.***
Flexibility. 192.159 ***Notes – SP-150 3.1 contains this.***
Supports and Anchors 192.161(a) (a) thru (f) ***Notes – SP-150 3.1 contains this. There is some additional detail in 160 for distribution.***
Transmission line valves.192.179 (a) thru (d) ***Notes - SPW 405 and the appropriate engineering standards 3.1.3 is the spacing***
Distribution line valves. 192.181(a) thru (c) ***Notes - SPW 405 and the appropriate engineering standards 3.1.3 is the spacing***
Vaults: Structural design requirements 192.183 (a) thru (c) ***Notes - SPW 749 – None in Washington. 3.1.1***
Vaults: Accessibility 192.185 (a) thru (c) ***Notes - SPW 749 – None in Washington. 3.1.3***
Vaults: Sealing, venting, and ventilation. 192.187 (a) thru (c) ***Notes - SPW 749 – None in Washington. 3.1.4***
Vaults: Drainage and waterproofing 192.189 (a) thru (c) ***Notes - SPW 749 – None in Washington. 3.1.5***
Valve installation in plastic pipe. 192.193 ***Notes - SPW 160 – 3.4.1***
Protection against accidental over-pressuring 192.195 (a) & (b) ***Notes - SPW 743***
Control of the pressure of gas delivered from high-pressure distribution systems. 192.197 (a) thru (c) ***Notes - SPW 743***
Except for rupture discs, each pressure relief or pressure limiting device must: 192.199 (a) thru (h) ***Notes - SPW 743***
Required capacity of pressure relieving and limiting stations. 192.201(c) ***Notes - SPW 743***
Instrument, Control, and Sampling Pipe and Components 192.203(a) & (b) ***Notes - SPW 743 Section 3.1***

Question 21

Does the operator's welding procedures account for all requirements specified in WAC 480-93-080 and all applicable Part 192, Subpart E requirements?

Q21 Reference
WAC 480-93-080

Q21 Reference 2
Part 192, Subpart E

Q21 Result
Satisfactory

Q21 Notes

Although this question was reviewed in the IA portion of this inspection under the UTC considerations, I will address it again here. The procedure qualification record (PQR) under the CFR, when qualifying under API 1104, must document essential variables.

The procedure to qualify the welder, under the WAC rules, requires documentation of the same essential variables.

Use of testing equipment to record and document essential variables 480-93-080(1)(b) (eff 6/02/05)

*****Notes – SP-221 Section 5.1. In OQ testing, when a welder is qualified they use to testing equipment to verify essential variables. It is stored in the qualification record*****

Welding procedures must be qualified under Section 5 of API 1104 or Section IX of ASME Boiler and Pressure Code (2001 ed.) by destructive test. Amdt. 192-103 pub 06/09/06, eff. 07/10/06. .225(a)

Notes – SP-221 Section 3 Paragraph 1

Retention of welding procedure – details and test .225(b)

Notes – SP-221 Section 5.1.1

Question 22

Does the operator have a sufficiently detailed procedure that requires plastic pipe joiners to be re-qualified within 1 year/NTE 15months? Are procedures required to be located on site where plastic joining is performed? Does the procedure require plastic pipe joiners to re-qualify if no joints made during any 12 month period? Does the procedure specify the process the operator uses to track production joints or re-qualify joiners within the annual requirement?

Q22 Reference
WAC 480-93-080(2)

Q22 Result
Satisfactory

Q22 Notes

A person must be requalified under an applicable procedure, if during any 12-month period that person: .285(c)
<ul style="list-style-type: none"> Does not make any joints under that procedure; or.285(c)(1)***Notes – SP-250 Section 3.7***
<ul style="list-style-type: none"> Has 3 joints or 3 percent of the joints made, whichever is greater, under that procedure that are found unacceptable by testing under §192.513..285(c)(2)***Notes – SP-250 Section 3.7***
Each operator shall establish a method to determine that each person making joints in plastic pipelines in the operator's system is qualified in accordance with this section. .285(d) ***Notes – SP-250 Section 3.7***
Plastic pipe joiners re-qualified 1/Yr (15 Months) 480-93-080 (2)
<ul style="list-style-type: none"> Qualified written plastic joining procedures must be located on-site where plastic joining is being performed.480-93-080(2)(a)***Notes – In FOM and OQ procedures***
<ul style="list-style-type: none"> Plastic pipe joiners re-qualified if no production joints made during any 12 month period 480-93-080(2)(b) (eff 6/02/05)***Notes – Requalified every 6 months***
<ul style="list-style-type: none"> Tracking production joints or re-qualify joiners 1/Yr (12Months) 480-93-080(2)(c) (eff 6/02/05)***Notes – No production joint tracking. Requalification is performed every 12 months ***

Question 23

Does the operator have sufficiently detailed procedures to ensure compliance with construction requirements for transmission lines and mains in accordance with Part 192, Subpart G?

Q23 Reference
Part 192, Subpart G

Q23 Result
Satisfactory

Q23 Notes

Compliance with specifications or standards. 192.303 ***Notes – SP-150 Section 2 Policy contains this. There is some additional detail in 160 for distribution.***
Inspection of each transmission line and main during construction 192.305 ***Notes – 135-01 installation of pipe requires inspection. SP-150 Section also requires that lines are constructed to meet code requirements.***
Inspection of materials 192.307 ***Notes – SP-150 3.4.2 contains this.***
Repair of steel pipe 192.309 (a) thru (e) ***Notes – SP-225,226,227 Policy***
Repair of plastic pipe. 192.311 ***Notes – SP-160 3.3.4.5 contains this***
Bends and elbows. 192.313 (a) thru (c) ***Notes – EP-J-13 for field bends.***
Wrinkle bends in steel pipe. 192.315 (a) & (b) ***Notes – SP-226 for wrinkle bend repairs. *** ***Notes – EP-J-13 says no wrinkle bends.***
Protection from hazards 192.317 (a) thru (c) ***Notes – SP 703 contains this***
Installation of Pipe in a ditch 192.319 (a) thru (c) ***Notes – SP-160 3.4.4 contains this.***
Installation of plastic pipe. 192.321 (a) thru (h) ***Notes – SP-160 and the FOM (Installation Standards For Plastic Pipe) contains this.***

Question 24

Does the operator have sufficiently detailed procedures to ensure protection of plastic pipe in accordance with WAC 480-93-178?

Q24 Reference
WAC 480-93-178

Q24 Result
Satisfactory

Q24 Notes

Separation requirements when installing plastic pipelines parallel to other underground utilities 480-93-178 (4) ***Notes – SP-160 3.5.2 contains this.***
Separation requirements when installing plastic pipelines perpendicular to other underground utilities 480-93-178 (5) ***Notes – SP-160 3.5.2 contains this.***

Question 25

Does the operator's procedure ensure the siting, installation, testing and maintenance of service regulators is in compliance with WAC 480-93-140 and Part 192, Subpart H?

Q25 Reference
WAC 480-93-140

Q25 Reference 2
Part 192, Subpart H

Q25 Result
Satisfactory

Q25 Notes

Procedures for installing, operating, and maintaining service regulators in accordance with federal and state regulations, and manufacturer's recommended installation and maintenance practices. 480-93-140(1) ***Notes – SP-361 (Meter Location Policy) contains this, but it addresses service regulators.
Procedures for inspecting and testing service regulators and associated safety devices during the initial turn-on, and when a customer experiences a pressure problem. Testing must include..... 480-93-140(2) ***Notes – SP-373 Section 3.2 (Service Regulators) has some information on this. The FOM for Activating Green Tagged Service Meters for new construction and Installing and Activating Residential Meter Sets with

Standard Delivery Pressure.***

CORROSION CONTROL PROCEDURES

Question 26

Do the operator's cathodic protection procedures contain sufficient detail to explain how CP-related surveys, reads, and tests will be conducted in accordance with WAC 480-93-110? Do procedures include recording the condition of all underground metallic facilities each time the facility is exposed? Does the procedure require CP test reads on all exposed facilities where the coating has been removed?

Q26 Reference
WAC 480-93-110

Q26 Result
Satisfactory

Q26 Notes

These questions are also in the IA inspection.(TD.CPEXPOSED.MONITORCRITERIA.P),(TD.CPEXPOSED.EXPOSECORRODE.P),(TD.CPEXPOSED.EXPOSEINSPECT.P)

Corrosion procedures established for the Design, Operations, Installation & Maintenance of CP systems, carried out by, or under the direction of, a person qualified in pipeline corrosion control methods .453 ***Notes – CP 455***

Written procedures explaining how cathodic protection related surveys, reads, and tests will be conducted. 480-93-110(4) ***Notes – CP 465 for classification of survey types. For example SP 467 has isolation and follow-up ***

Recording the condition of all underground metallic facilities each time the facilities are exposed. 480-93-110(6) *** Notes SP 459 covers internal and external 2.1 ***

CP test reading on all exposed facilities where coating has been removed 480-93-110(8) (eff 6/02/05) *** Notes SP 459 covers internal and external 2.2 ***

Question 27

Does the operator have a sufficiently detailed written program for monitoring atmospheric corrosion, with required timeframes for completing remedial action? Does the operator have a written program to monitor for indications of internal corrosion? Does the IC program contain remedial action requirements for areas where IC is detected?

Q27 Reference
WAC 480-93-110

Q27 Result
Satisfactory

Q27 Notes

Written program to monitor for indications of internal corrosion. The program must also have remedial action requirements for areas where internal corrosion is detected. 480-93-110(7) (eff 6/02/05) *** Notes SP 459 Section 3.2 ***

Written atmospheric corrosion control monitoring program. The program must have time frames for completing remedial action. 480-93-110(9) (eff 6/02/05) *** Notes SP 480 Table in Section 4.***

Question 28

Do the operator's corrosion control procedures specify the testing intervals for casings (NTE 15 months), confirmatory follow-up on shorted casings within 90 days of discovery, leak surveys of shorted casings (NTE 7.5 months) and test equipment accuracy checks in accordance with WAC 480-93-110(3) and (5)?

Q28 Reference
WAC 480-93-110 (3) and (5)

Q28 Result
Satisfactory

Q28 Notes

Casings inspected/tested annually not to exceed fifteen months 480-93-110(5) *** Notes SP 465 Section 3.3 ***

Casings w/no test leads installed prior to 9/05/1992. Demonstrate other acceptable test methods 480-93-110(5)(a) ***None - No casings without test leads***

Possible shorted conditions – Perform confirmatory follow-up inspection within 90 days 480-93-110(5)(b) ***Notes - SP 467 Section 3.2.2***

Casing shorts cleared when practical 480-93-110(5)(c) ***Notes - SP 467 Section 3.3.2***

Shorted conditions leak surveyed within 90 days of discovery. Twice annually/7.5 months 480-93-110(5)(d) ***Notes - SP 467 Section 3.4.2***

CP Test Equipment and Instruments checked for accuracy/intervals (Mfct Rec or Opr Sched) 480-93-110(3) ***Notes - SP 737 Section 3.1 and in Table 1***

OPERATIONS & MAINTENANCE PROCEDURES

Question 29

Does the operator's procedure specify detailed gas leak investigation, evaluation, classification, and remedial action/repair prioritization steps in sufficient detail in order to ensure compliance with WACs 480-93-185, -186, and -18601?

Q29 Reference
WAC 480-93-185

Q29 Reference 2
WAC 480-93-186

Q29 Reference 3
WAC 480-93-18601

Q29 Result
Satisfactory

Q29 Notes

Procedures for the prompt investigation of any notification of a leak, explosion, or fire, which may involve gas pipelines or other gas facilities.

- received from any outside source such as a police or fire department, other utility, contractor, customer, or the general public 480-93-185(1) ***Notes – In SP 603***

- Grade leak in accordance with WAC 480-93-186, and take appropriate action 480-93-185(1) ***Notes – In SP 709***

- retain the leak investigation record for the life of the pipeline. 480-93-185(1) ***Notes – In SP 709 Section 3.4 ***

Prevent removal of any suspected gas facility until the commission or the lead investigative authority has designated the release of the gas facility and keep the facility intact until directed by the lead investigative authority 480-93-185(2) ***Notes – In SP 617 3.1.3 ***
Taking appropriate action when leak indications originating from a foreign source. Notification requirements. 480-93-185(3) ***Notes – In SP 603 3.4***
Grade leaks as defined in WAC 480-93-18601 to establish the leak repair priority. 480-93-186(1) ***Notes – In SP 709 3.2 is classification. They will be classified in 5 business days Classification Guide is also available ***
Procedure for evaluating the concentration and extent of gas leakage 480-93-186(2) Note: Including third-party damage where there is a possibility of multiple leaks and underground migration into nearby buildings. ***Notes – In OP 501-01 ***
Use of a combustible gas indicator to check the perimeter of a leak area. Follow-up inspection on repaired leaks no later than thirty days following repair. 480-93-186(3) ***Notes – In OP 501-01 Item 19. Follow-up is in SP 709 ***
Grade 1 and 2 leaks downgraded once to Grade 3 leak without a physical repair. After downgrade, repair must be made not to exceed twenty-one months 480-93-186(4) ***Notes – In SP 709 3.2.1.4***

Question 30

Does the operator have sufficiently detailed procedures for pressure testing and test records composition/retention requirements to ensure compliance with WAC 480-93-170 and Part 192 Subpart J?

Q30 Reference	Q30 Reference 2	Q30 Result
WAC 480-93-170	Part 192 Subpart J	Satisfactory

Q30 Notes

Notification in writing, to the commission, at least 3 business days prior to any pressure test of a gas pipeline that will have a MAOP that produces a hoop stress of twenty percent or more of the SMYS 480-93-170(1) ***Notes – In SP 007 Section 3.5***
<ul style="list-style-type: none"> In Class 3 or Class 4 locations, as defined in 49 CFR § 192.5, or within one hundred yards of a building, must be at least eight hours in duration. 480-93-170(1)(a) ***Notes – In SP 007 Section 3.5***
<ul style="list-style-type: none"> When the test medium is to be a gas or compressible fluid, each operator must notify the appropriate public officials so that adequate public protection can be provided for during the test. 480-93-170(1)(b) ***Notes – In SP 007 Section 3.5***
<ul style="list-style-type: none"> In an emergency situation where it is necessary to maintain continuity of service, the requirements of subsection (1) of this section and subsection (1)(a) may be waived by notifying the commission by telephone prior to performing the test. 480-93-170(1)(c) ***Notes – In SP 007 Section 3.5***
Minimum test pressure for any steel service line or main, must be determined by multiplying the intended MAOP by a factor determined in accordance with the table located in 49 CFR § 192.619 (a)(2)(ii). 480-93-170(2) ***Notes – In SP 007 Section 3.2***
Re-testing of service lines broken, pulled, or damaged, resulting in the interruption of gas supply to the customer, must be pressure tested from the point of damage to the service termination valve prior to being placed back into service. 480-93-170(4) ***Notes – In SP 725 Section 3.1***
Maintain records of all pressure tests performed for the life of the pipeline and document information as listed under 480-93-170(7) (a-h). ***Notes – In SP 504 Section 3.6***
Maintain records of each test where multiple pressure tests are performed on a single installation. 480-93-170(9) ***Notes – In SP 504 Section 3.6.4***
Pressure testing equipment must be maintained, tested for accuracy, or calibrated, in accordance with the manufacturer's recommendations. 480-93-170(10) ***Notes – In SP 737***
<ul style="list-style-type: none"> When there are no manufacturer's recommendations, then tested at an appropriate schedule determined by the operator. ***Notes – In SP 737***
<ul style="list-style-type: none"> Test equipment must be tagged with the calibration or accuracy check expiration date. ***Notes – In SP 504. 3.4.2***

Question 31

Do the operator's procedures contain sufficient detail to comply with the required entries for all gas leak records according to the criteria outlined in WAC 480-93-187(1-13)?

Q31 Reference	Q31 Result
WAC 480-93-187	Satisfactory

Q31 Notes

Gas leak records must contain, at a minimum, the criteria outlined in 480-93-187 (1-13)
<ol style="list-style-type: none"> Date and time the leak was detected, investigated, reported, and repaired, and the name of the employee(s) conducting the investigation; Location of the leak (sufficiently described to allow ready location by other qualified personnel); Leak grade; Pipeline classification (e.g., distribution, transmission, service); If reported by an outside party, the name and address of the reporting party; Component that leaked (e.g., pipe, tee, flange, valve); Size and material that leaked (e.g., steel, plastic, cast iron); Pipe condition; Type of repair;

- (10) Leak cause;
- (11) Date pipe installed (if known);
- (12) Magnitude and location of CGI readings left; and
- (13) Unique identification numbers (such as serial numbers) of leak detection equipment.

***Notes – In SP709 3.4 ***

Question 32

Does the operator's leak survey procedure contain sufficient detail to assure compliance with instrumentation accuracy, survey intervals, records retention, and self-audits of the leak survey program as specified in WAC 480-93-188?

Q32 Reference	Q32 Result
WAC 480-93-188	Satisfactory

Q32 Notes

gas leak surveys using a gas detection instrument covering areas listed in 480-93-188(1)(a-e) ***Notes – In SP707 3.1***
Gas detection instruments tested for accuracy/intervals (Mfct rec or monthly not to exceed 45 days) 480-93-188(2) ***Notes – In SP737 ***
Surveys conducted according to the minimum frequencies outlined under 480-93-188(3)(a-d) ***Notes – In SP 707 ***
Surveys conducted under the following circumstances outlined under 480-93-188(4)(a-e) ***Notes – In SP 707 ***
Survey records must be kept for a minimum of five years and contain information required under 480-93-188(5)(a-f) ***Notes – In SP 707 Section 3.3 ***
Self audits as necessary, but not to exceed three years between audits and meet the criteria outlined under 480-93-188(6)(a-e) ***Notes – In SP 707 Section 3.4 ***

Question 33

Does the operator have sufficiently detailed procedures that detail service valve maintenance consistent with the requirements in WAC 480-93-100 and Part 192, Subpart M? Do the procedures prescribe service valve maintenance intervals of 1 per yr/ NTE 15months? Is the maintenance selection criteria consistent with WAC 480-93-100(2)(a-f)?

Q33 Reference	Q33 Reference 2	Q33 Result
WAC 480-93-100	Part 192 Subpart M	Satisfactory

Q33 Notes

Written service valve installation and maintenance program detailing the valve selection process, inspection, maintenance, and operating procedures. Does the program consider the criteria listed under 480-93-100(2)(a-f)? **Notes – SP 405 Has Key Operating Valves. Special valves are on the special building survey. Special Building is defined in the glossary.

Service valve maintenance (1 per yr/15 months) 480-93-100(3) ***Notes – In SP 405 Section 3.1.1 ***

Question 34

Do the operators procedures specify detailed steps to comply with the proximity consideration requirement in WAC 480-93-020?

Q34 Reference	Q34 Result
WAC 480-93-020	Satisfactory

Q34 Notes

Each operator must submit a written request and receive commission approval prior to: Operating any gas pipeline facility at greater than five hundred psig that is within five hundred feet of any of the following places: 480-93-20 (1)(a)

- A building that is in existence or under construction prior to the date authorization for construction is filed with the commission, and that is not owned and used by the petitioning operator in its gas operations; or:480-93-20 (1)(a)(i)
- A high occupancy structure or area that is in existence or under construction prior to the date authorization for construction is filed with the commission; or:480-93-20(1)(a)(ii)
- A public highway, as defined in RCW 81.80.010(3).480-93-20 (1)(a)(iii)***Notes – In SP 007 Section 3.3.1***

Operating any gas pipeline facility at greater than two hundred fifty psig, up to and including five hundred psig, that is operated within one hundred feet of either of the following places: 480-93-20(1)(b)

- A building that is in existence or under construction prior to the date authorization for construction is filed with the commission, and that is not owned and used by the petitioning operator in its gas operations; or:480-93-20(1)(b)(i)
- A high occupancy structure or area that is in existence or under construction prior to the date authorization for construction is filed with the commission. 480-93-20(1)(b)(ii)

For proposed new construction, document evidence to demonstrate that it is not practical to select an alternate route that will avoid areas or which demonstrates that the operator has considered future development of the area and has designed their pipeline facilities accordingly. 480-93-20(2) ***Notes – In SP 007 Section 3.3.2***

Question 35

Does the operator's OQ plan/procedure identify "New Construction" activities as covered tasks in accordance with WAC 480-93-013?

Q35 Reference	Q35 Result
WAC 480-93-013	Satisfactory

Q35 Notes

Have "New Construction" activities been identified and included in the operator's covered task list? 480-93-013 ***Notes – In FOM and OQ task list ***

Question 36

Do the operator's procedures specify use of odorant testing instrumentation, calibration, and applicable intervals in accordance with WAC 480-93-015? Does the procedure mandate retention of records of tests performed and equipment calibration for 5 years?

Q36 Reference

WAC 480-93-015

Q36 Result

Satisfactory

Q36 Notes

Use of odorant testing instrumentation/Monthly testing interval 480-93-015 (2) ***Notes – In SP 737 Section 2 policy SP 625 in under policy***

Odorant Testing Equipment Calibration/Intervals (Annually or Manufacturers Recommendation) 480-93-015 (3) ***Notes – In SP 737 Table 1***

Records maintained for usage, odorant tests performed and equipment calibration (5yrs) 480-93-015(4) ***Notes – In SP 737 Section 3.3 In SP 625 3.7***

PROCEDURES: SUMMARY OF REQUIRED COMMENTS

PROCEDURE REVIEW SUMMARY: Comments are required for any rating other than "Satisfactory". Summarize the "Notes" blocks above, and ensure you annotate the question number for each comment.

ADDITIONAL HEADER TEMPLATE

Question 37

Template for additional questions

Q37 Reference

WAC 480-75-330

Q37 Result**Q37 Notes**

Comments Template for additional comment boxes
