

# Inspection Output (IOR)

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## Inspection Information

Inspection Name	8193 Petrogas OM PPR	Operator(s)	PETROGAS WEST, LLC (39663)	Plan Submitted	06/11/2020
		Lead	Anthony Dorrrough	Plan Approval	06/12/2020 by Joe Subsits
Status	PLANNED	Observer(s)	David D. Lykken	All Activity Start	07/06/2020
Start Year	2020	Supervisor	Joe Subsits	All Activity End	07/06/2020
System Type	HL	Director	Sean Mayo	Inspection Submitted	--
Protocol Set ID	HL.2020.01			Inspection Approval	--

## Inspection Summary

**Inspection Scope and Summary:** These Operations and Maintenance (OM) Plans Procedures Review (PPR) inspections covered all applicable provisions of 49 CFR 195 and WAC 480-93 that pertain to the Petrogas West LLC (Petrogas) liquid transmission pipeline. These inspections included a review of the Petrogas OM plan, procedures and records. There were no significant findings or follow-up actions.

## Scope (Assets)

#	Short Label	Long Label	Asset Type	Asset IDs	Excluded Topics	Planned	Required	Total Inspected	Required % Complete
1.	Ferndale Storage Terminal	Petrogas West LLC	unit	--	Pump Stations Offshore GOM Crosses Nav. Reg Rural Gather Rural Low Stress Abandoned	132	132	132	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.	Ferndale Storage Terminal	Small System Key Risks, BO Tank Inspection, Control Room Management, Core	AR, CR, DC, TDC, EP, FS, IM, MO, PD, P RPT, SRN, TD, TQ, GENERIC		Detail

## Plan Implementations

Activity #	Activity Name	SMAR T Act#	Start Date	Focus Directives	Involved Groups/Subgroups	Assets	Qst Type(s)	Planned	Required	Total Inspected	Required % Complete
1	8193 OM P . PR	--	07/06/2020	Small System Key Risks, BO Tank Inspection,	AR, CR, DC, TDC, EP, FS, IM, MO, PD, RPT, TD, TQ, GENERIC	Ferndale Storage Terminal	P	132	132	132	100.0%

Activity # Name	SMAR T Act#	Start Date End Date	Focus Directives	Involved Groups/Subgroups	Assets	Qst Type(s)	Planned	Required	Total Inspected	Required % Complete
			Control Room Management, Core							

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

## Forms

No.	Entity	Form Name	Status	Date Completed	Activity Name	Asset
1.	Attendance List	New Attendance Form	STARTED	--	8193 OM PPR	Ferndale Storage Terminal

## Results (all values, 132 results)

139 (instead of 132) results are listed due to re-presentation of questions in more than one sub-group.

### CR.CRMGEN: General

1. Question Result, ID, References: NA, CR.CRMGEN.CRMCRITERIA.P, 195.446(a)  
 Question Text: Do procedures adequately address the process and criteria that determine which facilities are determined to be control rooms?  
 Assets Covered: Ferndale Storage Terminal  
 Result Notes: No such relevant facilities/equipment existed in the scope of inspection review.
2. Question Result, ID, References: NA, CR.CRMGEN.CRMMGMT.P, 195.446(a)  
 Question Text: Are CRM procedures formalized and controlled?  
 Assets Covered: Ferndale Storage Terminal  
 Result Notes: No such event occurred, or condition existed, in the scope of inspection review.

### CR.CRMRR: Roles and Responsibilities

3. Question Result, ID, References: NA, CR.CRMRR.RESPONSIBLE.P, 195.446(b)(1)  
 Question Text: Are there clear processes to describe each controller's physical domain of responsibility for pipelines and other facility assets?  
 Assets Covered: Ferndale Storage Terminal  
 Result Notes: No such relevant facilities/equipment existed in the scope of inspection review.
4. Question Result, ID, References: NA, CR.CRMRR.QUALCONTROL.P, 195.446(b)(1)  
 Question Text: Are there provisions in place to assure that only qualified individuals may assume control at any console/desk?  
 Assets Covered: Ferndale Storage Terminal  
 Result Notes: No such relevant facilities/equipment existed in the scope of inspection review.
5. Question Result, ID, References: NA, CR.CRMRR.DOMAINCHANGE.P, 195.446(b)(1)  
 Question Text: If the physical domain of responsibility periodically changes, has a clear process been established to describe the conditions for when such a change occurs?  
 Assets Covered: Ferndale Storage Terminal

- Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
6. Question Result, ID, References **NA, CR.CRMRR.RESPCHANGE.P, 195.446(b)(1)**  
 Question Text *Do processes address a controller's role during temporary impromptu (unplanned) changes in controller responsibilities?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
7. Question Result, ID, References **NA, CR.CRMRR.COMMANDVERIFY.P, 195.446(b)(1)**  
 Question Text *Do the defined roles and responsibilities require controllers to stay at the console to verify all SCADA commands that have been initiated are fulfilled, and that commands given via verbal communications are acknowledged before leaving the console for any reason?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
8. Question Result, ID, References **NA, CR.CRMRR.AUTHORITYABNORMAL.P, 195.446(b)(2)**  
 Question Text *Have processes been established to define the controllers' authority and responsibilities when an abnormal operating condition is detected?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
9. Question Result, ID, References **NA, CR.CRMRR.AUTHORITYEMERGENCY.P, 195.446(b)(3)**  
 Question Text *Do processes define the controllers' authority and responsibility to make decisions, take actions, and communicate with others upon being notified of, or upon detection of, and during, an emergency or if a leak or rupture is suspected?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
10. Question Result, ID, References **NA, CR.CRMRR.EVACUATION.P, 195.446(b)(3)**  
 Question Text *Do processes specifically address the controller's responsibilities in the event the control room must be evacuated?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
11. Question Result, ID, References **NA, CR.CRMRR.COMMSYSFAIL.P, 195.446(b)(3)**  
 Question Text *Do processes specifically address the controller's responsibilities in the event of a SCADA system or data communications system failure impacting large sections of the controller's domain of responsibility?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
12. Question Result, ID, References **NA, CR.CRMRR.HANDOVER.P, 195.446(b)(4) (195.446(c)(5))**  
 Question Text *Have processes been established for the hand-over of responsibility that specify the type of information to be communicated to the oncoming shift?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
13. Question Result, ID, References **NA, CR.CRMRR.HANDOVERDOC.P, 195.446(b)(4) (195.446(c)(5))**  
 Question Text *Do processes require that records document the hand-over of responsibility, document the time the actual hand-over of responsibility occurs, and the key information and topics that were communicated during the hand-over?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
14. Question Result, ID, References **NA, CR.CRMRR.HANDOVEROVERLAP.P, 195.446(b)(4)**

Question Text *Do processes require the controllers to discuss recent and impending important activities ensuring adequate overlap?*

Assets Covered Ferndale Storage Terminal

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

15. Question Result, ID, References NA, CR.CRMRR.HANDOVERALTERNATIVE.P, 195.446(b)(4)

Question Text *When a controller is unable to continue or assume responsibility for any reason, do the shift hand-over processes include alternative shift hand-over actions that specifically address this situation?*

Assets Covered Ferndale Storage Terminal

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

16. Question Result, ID, References NA, CR.CRMRR.UNATTENDCONSOLE.P, 195.446(b)(4)

Question Text *Has the operator established an adequate process for occasions when the console is left temporarily unattended for any reason?*

Assets Covered Ferndale Storage Terminal

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

17. Question Result, ID, References NA, CR.CRMRR.CONSOLECOVERAGE.P, 195.446(b)(4)

Question Text *Do processes maintain adequate console coverage during shift hand-over?*

Assets Covered Ferndale Storage Terminal

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

18. Question Result, ID, References NA, CR.CRMRR.OTHERAUTHORITYDISALLOW.P, 195.446(b)(5)

Question Text *Do processes disallow others to have authority to direct or supersede the specific technical actions of a controller?*

Assets Covered Ferndale Storage Terminal

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

19. Question Result, ID, References NA, CR.CRMRR.OTHERAUTHORITYQUAL.P, 195.446(b)(5)

Question Text *Does the process result in identification of required qualification elements for those authorized to direct or supersede the technical actions of a controller that are sufficient for those individuals to understand the implications of the scope of potential actions?*

Assets Covered Ferndale Storage Terminal

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

20. Question Result, ID, References NA, CR.CRMRR.OTHERAUTHORITYIMPLEMENT.P, 195.446(b)(5)

Question Text *Is the process defined with respect to the details of how those authorized to direct or supersede the technical actions of a controller are to implement their authority?*

Assets Covered Ferndale Storage Terminal

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

## CR.SCADA: Supervisory Control and Data Acquisition

21. Question Result, ID, References NA, CR.SCADA.SYSTEMMOC.P, 195.446(c)(1)

Question Text *Do processes clearly define the types of changes to the SCADA system(s) that constitute additions, expansions, or replacements under the meaning of the CRM rule?*

Assets Covered Ferndale Storage Terminal

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

22. Question Result, ID, References NA, CR.SCADA.DISPLAYCONFIG.P, 195.446(c)(1)

Question Text *Are there written processes to implement the API RP 1165 display standards to the SCADA systems that have been added, expanded, or replaced since August 1, 2012?*

Assets Covered Ferndale Storage Terminal

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

23. Question Result, ID, References NA, CR.SCADA.SETPOINT.P, 195.446(c)(2) (195.406(b))

Question Text *Does the process adequately define safety-related points?*

Assets Covered Ferndale Storage Terminal

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

24. Question Result, ID, References NA, CR.SCADA.POINTVERIFY.P, 195.446(c)(2)

Question Text *Are there adequate processes to define and identify the circumstances which require a point-to-point verification?*

Assets Covered Ferndale Storage Terminal

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

25. Question Result, ID, References NA, CR.SCADA.POINTVERIFYEXTENT.P, 195.446(c)(2)

Question Text *Are there adequate processes for the thoroughness of the point-to-point verification?*

Assets Covered Ferndale Storage Terminal

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

26. Question Result, ID, References NA, CR.SCADA.POINTVERFIYINTVL.P, 195.446(c)(2)

Question Text *Is there an adequate process for defining when the point-to-point verification must be completed?*

Assets Covered Ferndale Storage Terminal

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

27. Question Result, ID, References NA, CR.SCADA.COMMPLAN.P, 195.446(c)(3)

Question Text *Has an internal communication plan been established and implemented that is adequate to manually operate the pipeline during a SCADA failure/outage?*

Assets Covered Ferndale Storage Terminal

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

28. Question Result, ID, References NA, CR.SCADA.BACKUPSCADADEV.P, 195.446(c)(4)

Question Text *Has the use of the backup SCADA system for development work been defined?*

Assets Covered Ferndale Storage Terminal

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

29. Question Result, ID, References NA, CR.SCADA.BACKUPSCADATRANSFER.P, 195.446(c)(4)

Question Text *Do processes adequately address and test the logistics of transferring control to a backup control room?*

Assets Covered Ferndale Storage Terminal

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

30. Question Result, ID, References NA, CR.SCADA.BACKUPSCADARETURN.P, 195.446(c)(4)

Question Text *Do procedures adequately address and test the logistics of returning operations back to the primary control room?*

Assets Covered Ferndale Storage Terminal

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

## CR.CRMFM: Fatigue Management

31. Question Result, ID, References NA, CR.CRMFM.FATIGUEMITIGATION.P, 195.446(d)

Question Text *Does the fatigue mitigation process or procedures (plan) identify operator-specific fatigue risks?*

Assets Covered Ferndale Storage Terminal

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

32. Question Result, ID, References **NA, CR.CRMFM.FATIGUERISKS.P, 195.446(d)**  
 Question Text *Does the fatigue mitigation plan adequately address how the program reduces the risk associated with controller fatigue?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
33. Question Result, ID, References **NA, CR.CRMFM.FATIGUEQUANTIFY.P, 195.446(d)**  
 Question Text *Do processes require that the potential contribution of controller fatigue to incidents and accidents be quantified during investigations?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
34. Question Result, ID, References **NA, CR.CRMFM.FATIGUEMANAGER.P, 195.446(d)**  
 Question Text *Is there a designated fatigue risk manager who is responsible and accountable for managing fatigue risk and fatigue countermeasures, and someone (perhaps the same person) that is authorized to review and approve HOS emergency deviations?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
35. Question Result, ID, References **NA, CR.CRMFM.ONCALLCONTROLLER.P, 195.446(d)**  
 Question Text *For controllers who are on call, do processes minimize interrupting the required 8 hours of continuous sleep or require a documented technical basis to show that shift lengths and schedule rotations are adequate to provide controllers off-duty time sufficient to achieve 8 hours of continuous sleep?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
36. Question Result, ID, References **NA, CR.CRMFM.MAXHOS.P, 195.446(d)(4)**  
 Question Text *Do processes limit the maximum HOS limit in any sliding 7-day period to no more than 65 hours or is there a documented technical basis to show reduction of the risk associated with controller fatigue?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
37. Question Result, ID, References **NA, CR.CRMFM.MINTIMEOFF.P, 195.446(d)(4)**  
 Question Text *After reaching the HOS limit in any sliding 7-day period, is the minimum time off at least 35 hours or is there a documented technical basis to show a reduction of the risk associated with controller fatigue?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
38. Question Result, ID, References **NA, CR.CRMFM.DOCSCHEDULE.P, 195.446(d)(4)**  
 Question Text *Is there a formal system to document all scheduled and unscheduled HOS worked, including overtime and time spent performing duties other than control room duties?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
39. Question Result, ID, References **NA, CR.CRMFM.DAYSOFF.P, 195.446(d)(4)**  
 Question Text *For normal business hour type operations (i.e., five days per week), are no more than five days worked in succession before at least two days off?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
40. Question Result, ID, References **NA, CR.CRMFM.FATIGUECOUNTERMEASURES.P, 195.446(d)(4)**  
 Question Text *For shifts longer than 8 hours, have specific fatigue countermeasures been implemented for the ninth and beyond hours?*

Assets Covered Ferndale Storage Terminal

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

41. Question Result, ID, References NA, CR.CRMFM.DAILYHOSLIMIT.P, 195.446(d)(4)

Question Text *Do processes limit the daily maximum HOS limit to no more than 14 hours in any sliding 24-hour period?*

Assets Covered Ferndale Storage Terminal

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

42. Question Result, ID, References NA, CR.CRMFM.OFFDUTYHOURS.P, 195.446(d)(4)

Question Text *Do processes ensure that controllers are provided with at least thirty-five (35) continuous off-duty hours when limits are reached following the most recent 35-hour (minimum) off-duty rest period or is there a documented technical basis to show that the maximum limit on controller HOS is adequate to reduce the risk associated with controller fatigue?*

Assets Covered Ferndale Storage Terminal

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

43. Question Result, ID, References NA, CR.CRMFM.SHIFTHOLDOVER.P, 195.446(d)(4)

Question Text *Does the shift holdover process conform to shift holdover guidelines or is there a documented technical basis to show that the maximum limit on controller HOS is adequate to reduce the risk associated with controller fatigue?*

Assets Covered Ferndale Storage Terminal

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

44. Question Result, ID, References NA, CR.CRMFM.SPECIFICCOUNTERMEASURES.P, 195.446(d)(4)

Question Text *Do processes require specific fatigue countermeasures during applicable time periods, or is there a documented technical basis to show that the maximum limit on controller HOS is adequate to reduce the risk associated with controller fatigue?*

Assets Covered Ferndale Storage Terminal

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

45. Question Result, ID, References NA, CR.CRMFM.HOSDEVIATIONS.P, 195.446(d)(4)

Question Text *Is there a formal process for approving deviations from the maximum HOS limits?*

Assets Covered Ferndale Storage Terminal

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

46. Question Result, ID, References NA, CR.CRMFM.FATIGUEEDUCATE.P, 195.446(d)(2) (195.446(d)(3))

Question Text *Does the program require that fatigue education/training is required for all controllers and control room supervisors?*

Assets Covered Ferndale Storage Terminal

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

47. Question Result, ID, References NA, CR.CRMFM.FATIGUEREVIEW.P, 195.446(d)(2) (195.446(d)(3), 195.402(a))

Question Text *Do processes require that the effectiveness of the fatigue education/training program be reviewed at least once each calendar year, not to exceed 15 months?*

Assets Covered Ferndale Storage Terminal

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

48. Question Result, ID, References NA, CR.CRMFM.FATIGUESTATEGY.P, 195.446(d)(2)

Question Text *Does fatigue education address fatigue mitigation strategies (countermeasures)?*

Assets Covered Ferndale Storage Terminal

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

49. Question Result, ID, References NA, CR.CRMFM.OFFDUTY.P, 195.446(d)(2)

Question Text *Does fatigue education address how off-duty activities contribute to fatigue?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

50. Question Result, ID, References **NA, CR.CRMFM.FATIGUECONTENT.P, 195.446(d)(3)**  
Question Text *Is the content of fatigue training adequate for training controllers and supervisors to recognize the effects of fatigue?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

## **CR.CRMAM: Alarm Management**

51. Question Result, ID, References **NA, CR.CRMAM.ALARM.P, 195.446(e)**  
Question Text *Is the alarm management plan a formal process that specifically identifies critical topical areas included in the program?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

52. Question Result, ID, References **NA, CR.CRMAM.ALARMMALFUNCTION.P, 195.446(e)(1)**  
Question Text *Is there a process to identify and correct inaccurate or malfunctioning alarms?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

53. Question Result, ID, References **NA, CR.CRMAM.ALARMREVIEW.P, 195.446(e)(1)**  
Question Text *Does the review of safety-related alarms account for different alarm designs and all alarm types/priorities?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

54. Question Result, ID, References **NA, CR.CRMAM.CONTROLLERPERFORMANCE.P, 195.446(h) (195.446(e)(1))**  
Question Text *Does the review of safety-related alarms account for console differences that could affect individual-specific controller qualification and performance?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

55. Question Result, ID, References **NA, CR.CRMAM.STALEDATA.P, 195.446(e)(1)**  
Question Text *Does the review of safety-related alarms include specific procedures and practices for managing stale or unreliable data?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

56. Question Result, ID, References **NA, CR.CRMAM.MONTHLYANALYSIS.P, 195.446(e)(2)**  
Question Text *Do processes require the monthly identification, recording, review, and analysis of points that have been taken off scan, have had alarms inhibited, generated false alarms, or that have had forced or manual values for periods of time exceeding that required for associated maintenance or operating activities?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

57. Question Result, ID, References **NA, CR.CRMAM.PROBLEMCORRECTION.P, 195.446(e)(2)**  
Question Text *Does the alarm management plan include a process for promptly correcting identified problems and for returning these points to service?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**



58. Question Result, ID, References **NA, CR.CRMAM.ALARMSETPOINTS.P, 195.446(e)(3)**  
 Question Text *Is there a formal process to determine the correct alarm setpoint values and alarm descriptions?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
59. Question Result, ID, References **NA, CR.CRMAM.SETTINGCONTROL.P, 195.446(e)(3)**  
 Question Text *Have procedures been established to clearly address how and to what degree controllers can change alarm limits or setpoints, or inhibit alarms, or take points off-scan?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
60. Question Result, ID, References **NA, CR.CRMAM.VERIFICATION.P, 195.446(e)(3)**  
 Question Text *Do processes require that any calibration or change to field instruments require verification of alarm setpoints and alarm descriptions?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
61. Question Result, ID, References **NA, CR.CRMAM.PLANREVIEW.P, 195.446(e)(4)**  
 Question Text *Are there processes to review the alarm management plan at least once each calendar year, but at intervals not exceeding 15 months, in order to determine the effectiveness of the plan?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
62. Question Result, ID, References **NA, CR.CRMAM.WORKLOAD.P, 195.446(e)(5)**  
 Question Text *Does the CRM program have a means of identifying and measuring the work load (content and volume of general activity) being directed to an individual controller?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
63. Question Result, ID, References **NA, CR.CRMAM.WORKLOADMONITORING.P, 195.446(e)(5)**  
 Question Text *Is the process of monitoring and analyzing general activity comprehensive?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
64. Question Result, ID, References **NA, CR.CRMAM.CONTROLLERREACTION.P, 195.446(e)(5)**  
 Question Text *Does the process have a means of determining that the controller has sufficient time to analyze and react to incoming alarms?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**
65. Question Result, ID, References **NA, CR.CRMAM.DEFICIENCIES.P, 195.446(e)(6)**  
 Question Text *Is there a process to address how deficiencies found in implementing 195.446(e)(1) through 195.446(e)(5) will be resolved?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

## CR.CRMCMGT: Change Management

66. Question Result, ID, References **NA, CR.CRMCMGT.CHANGEMEETINGS.P, 195.446(f)(1)**  
 Question Text *Is there a process to mandate a control room representative will participate in meetings where changes that could directly or indirectly affect control room operations (including routine maintenance and repairs) are being considered, designed and implemented?*

Assets Covered **Ferndale Storage Terminal**  
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

67. Question Result, ID, References **NA, CR.CRMCMGT.EMERGENCYCONTACT.P, 195.446(f)(2)**  
Question Text *Is there a process requiring field personnel and SCADA support personnel to contact the control room when emergency conditions exist?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

68. Question Result, ID, References **NA, CR.CRMCMGT.CHANGECOORDINATION.P, 195.446(f)(1)**  
Question Text *Does the process assure changes in field equipment (for example, moving a valve) that could affect control room operations are coordinated with control room personnel?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

69. Question Result, ID, References **NA, CR.CRMCMGT.FIELDCONTACT.P, 195.446(f)(2)**  
Question Text *Does the process require field personnel and SCADA support personnel to contact the control room when making field changes (for example, moving a valve) that affect control room operations?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

## **CR.CRMEXP: Operating Experience**

70. Question Result, ID, References **NA, CR.CRMEXP.REPORTABLEACCIDENTREVIEW.P, 195.446(g)(1)**  
Question Text *Is there a formal, structured approach for reviewing and critiquing reportable events to identify lessons learned?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

71. Question Result, ID, References **NA, CR.CRMEXP.LESSONSLEARNED.P, 195.446(g)(2) (195.446(b)(5))**  
Question Text *Does the program require training on lessons learned from a broad range of events (reportable incidents/accidents, near misses, leaks, operational and maintenance errors, etc.), even though the control room may not have been at fault?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

## **CR.CRMTRAIN: Training**

72. Question Result, ID, References **NA, CR.CRMTRAIN.CONTROLLERTRAIN.P, 195.446(h)**  
Question Text *Has a controller training program been established to provide training for each controller to carry out their roles and responsibilities?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

73. Question Result, ID, References **NA, CR.CRMTRAIN.TRAININGREVIEW.P, 195.446(h)**  
Question Text *Have processes been established to review the controller training program content to identify potential improvements at least once each calendar year, but at intervals not to exceed 15 months?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **No such relevant facilities/equipment existed in the scope of inspection review.**

74. Question Result, ID, References **NA, CR.CRMTRAIN.TRAININGABNORMAL.P, 195.446(h)(1)**  
Question Text *Does the training program provide controller training on recognizing and responding to abnormal operating conditions that are likely to occur simultaneously or in sequence?*

Assets Covered Ferndale Storage Terminal

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

75. Question Result, ID, References NA, CR.CRMTRAIN.COMMUNICATIONTRAINING.P, 195.446(h)(3)

Question Text *Does the CRM program train controllers on their responsibilities for communication under the operator's emergency response procedures?*

Assets Covered Ferndale Storage Terminal

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

76. Question Result, ID, References NA, CR.CRMTRAIN.SYSKNOWLEDGE.P, 195.446(h)(4)

Question Text *Does the training program provide controllers a working knowledge of the pipeline system, especially during the development of abnormal operating conditions?*

Assets Covered Ferndale Storage Terminal

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

77. Question Result, ID, References NA, CR.CRMTRAIN.INFREQOPSREVIEW.P, 195.446(h)(5)

Question Text *Do processes specify that, for pipeline operating set-ups that are periodically (but infrequently) used, the controllers must be provided an opportunity to review relevant procedures in advance of their use?*

Assets Covered Ferndale Storage Terminal

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

78. Question Result, ID, References NA, CR.CRMTRAIN.TEAMTRAINPERSONNEL.P, 195.446(h)(6)

Question Text *Do processes establish who, regardless of location, operationally collaborates with control room personnel?*

Assets Covered Ferndale Storage Terminal

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

79. Question Result, ID, References NA, CR.CRMTRAIN.TEAMTRAINFREQ.P, 195.446(h)(6)

Question Text *Do processes define the frequency of new and recurring team training?*

Assets Covered Ferndale Storage Terminal

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

80. Question Result, ID, References NA, CR.CRMTRAIN.TEAMTRAINCOMPLETE.P, 195.446(h)(6)

Question Text *Do processes address all operational modes and operational collaboration/control?*

Assets Covered Ferndale Storage Terminal

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

81. Question Result, ID, References NA, CR.CRMTRAIN.TEAMTRAINEXPERIENCE.P, 195.446(h)(6)

Question Text *Do processes include incorporation of lessons learned from actual historical events and other oil-gas industry events?*

Assets Covered Ferndale Storage Terminal

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

## CR.CRMCOMP: Compliance Validation and Deviations

82. Question Result, ID, References NA, CR.CRMCOMP.SUBMITPROCEDURES.P, 195.446(i)

Question Text *Are there adequate processes to assure that the operator is responsive to requests from applicable agencies to submit their CRM procedures?*

Assets Covered Ferndale Storage Terminal

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

83. Question Result, ID, References NA, CR.CRMCOMP.RECORDS.P, 195.446(j)(1)

Question Text *Are records management processes adequate to assure records are sufficient to demonstrate compliance with the CRM rule?*

Assets Covered Ferndale Storage Terminal

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

84. Question Result, ID, References NA, CR.CRMCOMP.DEVIATIONS.P, 195.446(j)(2)

Question Text *Are there processes to demonstrate and provide a documented record that every deviation from any CRM rule requirement was necessary for safe operation?*

Assets Covered Ferndale Storage Terminal

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

## DC.CO: Construction

85. Question Result, ID, References Sat, DC.CO.RECORDS.P, 195.202 (195.266(a), 195.266(b), 195.266(c), 195.266(d), 195.266(e), 195.266(f))

Question Text *Does the process require applicable construction records to be maintained for the life of each pipeline?*

Assets Covered Ferndale Storage Terminal

Result Notes Located in MIP 407- Welding - 2.1.6.2 Documentation

## DC.WELDINSP: Construction Weld Inspection

86. Question Result, ID, References Sat, DC.WELDINSP.GIRTHWELDNDT.P, 195.202 (195.234(d), 195.234(e), 195.234(f), 195.234(g), 195.266) (also presented in: TDC.WELDINSP)

Question Text *Does the process require certain girth welds to be nondestructively tested in accordance with 195.234(d), (e), (f), and (g)?*

Assets Covered Ferndale Storage Terminal

Result Notes Located in MIP 407 Welding - 9.0 Documentation and Retention, MIP 403 Piupe Repair - 2.1 Pipeline Facility Manual - Facility Design Basis

## DC.WELDERQUAL: Construction Welder Qualification

87. Question Result, ID, References Sat, DC.WELDERQUAL.WELDERQUAL.P, 195.222(a) (195.222(b)) (also presented in: TDC.WELDERQUAL)

Question Text *Is each welder required to be qualified in accordance with section 6 of API 1104 or section IX of the ASME Boiler and Pressure Vessel Code?*

Assets Covered Ferndale Storage Terminal

Result Notes Located in MIP 407 - Welding - 5.6 Determine if the welder is qualified to perform the welding.

## DC.WELDPROCEDURE: Construction Welding Procedures

88. Question Result, ID, References Sat, DC.WELDPROCEDURE.WELD.P, 195.214(a) (also presented in: TDC.WELDPROCEDURE)

Question Text *Does the process require welding to be performed by qualified welders using qualified welding procedures?*

Assets Covered Ferndale Storage Terminal

Result Notes Located in MIP 407 - Welding - 5.6 Determine if the welder is qualified to perform the welding.

89. Question Result, ID, References Sat, DC.WELDPROCEDURE.WELDPROCEDURE.P, 195.214(b) (also presented in: TDC.WELDPROCEDURE)

Question Text *Are welding procedures and qualifying tests required to be recorded in detail?*

Assets Covered Ferndale Storage Terminal

Result Notes Located in MIP 407 - Welding - 5.6 Determine if the welder is qualified to perform the welding and MIP 403 Pipe Repair

## DC.MO: Maintenance and Operations

90. Question Result, ID, References Sat, DC.MO.SAFETY.P, 195.402(a) (195.422(a), 195.402(c)(14))

Question Text *Does the process ensure that pipeline maintenance construction and testing activities are made in a safe manner and are made so as to prevent damage to persons and property?*

Assets Covered Ferndale Storage Terminal

Result Notes Located in MIP 403 Pipe Repair

## DC.PT: Pressure Testing

91. Question Result, ID, References Sat, DC.PT.PRESSTEST.P, 195.402(c) (195.302(a), 195.304, 195.305, 195.306, 195.310)

Question Text *Does the process have adequate test procedures?*

Assets Covered Ferndale Storage Terminal

Result Notes Located in MIP 301- Pipe Hydrostatic testing - 4.14 Pipeline Manual Inspection and Maintenance procedures

92. Question Result, ID, References Sat, DC.PT.PRESSTESTTIEIN.P, 195.402(c) (195.308)

Question Text *Does the process require testing of pipe associated with tie-ins, either with the section to be tied in or separately?*

Assets Covered Ferndale Storage Terminal

Result Notes Located in MIP 301- Pipe Hydrostatic testing - 4.14 Pipeline Manual Inspection and Maintenance procedures

## TDC.TK650: New Breakout Tanks (API 650 Atmospheric)

93. Question Result, ID, References Sat, TDC.TK650.BOSPEC.P, 195.132(b)(3) (API Std 650)

Question Text *Does the process for new aboveground atmospheric breakout tanks require tank design and construction to meet the requirements of 195.132(b)(3)?*

Assets Covered Ferndale Storage Terminal

Result Notes 2.1 - Facility Design Basis - 2.1.1.

MIP 601 & 603 Aboveground Storage - Inspection & Repair

94. Question Result, ID, References Sat, TDC.TK650.REPAIRSPEC.P, 195.205(b)(1) (API Std 650, API Std 653)

Question Text *Are breakout tanks required to be repaired, altered, or reconstructed in compliance with the requirements of 195.205(b)(1)?*

Assets Covered Ferndale Storage Terminal

Result Notes Located in MIP 601 Aboveground Storage Tank Inspection - MIP 603 Aboveground Storage Tank Inspection

95. Question Result, ID, References Sat, TDC.TK650.LEAKTESTING.P, 195.307(c) (195.310(a), API 650, 195.310(b))

Question Text *Does the process for new aboveground breakout tanks require leak testing of tanks in accordance with 195.307?*

Assets Covered Ferndale Storage Terminal

Result Notes MIP 301- Pipe Hydrostatic Testing

MIP 604 - Hydrostatic Testing of Atmospheric Storage Tanks

96. Question Result, ID, References Sat, TDC.TK650.REPAIRLEAKTEST.P, 195.307(d) (195.310(a), 195.310(b), API 653)

Question Text *Does the process for aboveground atmospheric breakout tanks require leak testing of tanks after repairs, alterations, and reconstruction in accordance with 195.307(d)?*

Assets Covered Ferndale Storage Terminal

Result Notes MIP 301- Pipe Hydrostatic Testing

MIP 604 - Hydrostatic Testing of Atmospheric Storage Tanks

97. Question Result, ID, References Sat, TDC.TK650.BOCP.P, 195.565 (195.563(d), API Std 651)

Question Text *Does the process for new aboveground breakout tanks specify cathodic protection as required by 195.565?*

Assets Covered Ferndale Storage Terminal

Result Notes MIP 501- Cathodic Protection

MIP 504 - Tank Coating Inspection and Repair

2.3 Facility Pipeline Manual - Corrosion Control Program

98. Question Result, ID, References Sat, TDC.TK650.BOIMPOUND.P, 195.264(a) (195.264(b), 195.264(c), 195.264(d), 195.264(e))

Question Text *Does the process for new aboveground breakout tanks require impoundment(s) to meet the requirements of 195.264 in the event of tank spillage or failure?*

Assets Covered Ferndale Storage Terminal

Result Notes 2.1 Facility Pipeline Manual - Design Basis

## TDC.WELDPROCEDURE: New Tank Piping - Construction Welding Procedures (Re-Presented)

99. Question Result, ID, References Sat, DC.WELDPROCEDURE.WELDPROCEDURE.P, 195.214(b) (also presented in: DC.WELDPROCEDURE)

Question Text *Are welding procedures and qualifying tests required to be recorded in detail?*

Assets Covered Ferndale Storage Terminal

Result Notes Located in MIP 407 - Welding - 5.6 Determine if the welder is qualified to perform the welding and MIP 403 Pipe Repair

100. Question Result, ID, References Sat, DC.WELDPROCEDURE.WELD.P, 195.214(a) (also presented in: DC.WELDPROCEDURE)

Question Text *Does the process require welding to be performed by qualified welders using qualified welding procedures?*

Assets Covered Ferndale Storage Terminal

Result Notes Located in MIP 407 - Welding - 5.6 Determine if the welder is qualified to perform the welding.

## TDC.WELDERQUAL: New Tank Piping - Construction Welder Qualification (Re-Presented)

101. Question Result, ID, References Sat, DC.WELDERQUAL.WELDERQUAL.P, 195.222(a) (195.222(b)) (also presented in: DC.WELDERQUAL)

Question Text *Is each welder required to be qualified in accordance with section 6 of API 1104 or section IX of the ASME Boiler and Pressure Vessel Code?*

Assets Covered Ferndale Storage Terminal

Result Notes Located in MIP 407 - Welding - 5.6 Determine if the welder is qualified to perform the welding.

## TDC.WELDINSP: New Tank Piping - Construction Weld Inspection (Re-Presented)

102. Question Result, ID, References Sat, DC.WELDINSP.GIRTHWELDNDDT.P, 195.202 (195.234(d), 195.234(e), 195.234(f), 195.234(g), 195.266) (also presented in: DC.WELDINSP)

Question Text *Does the process require certain girth welds to be nondestructively tested in accordance with 195.234(d), (e), (f), and (g)?*

Assets Covered Ferndale Storage Terminal

Result Notes Located in MIP 407 Welding - 9.0 Documentation and Retention, MIP 403 Piupe Repair - 2.1 Pipeline Facility Manual - Facility Design Basis

## EP.ERL: Emergency Response Liquids

103. Question Result, ID, References Sat, EP.ERL.REVIEW.P, 195.402(a)

Question Text *Does the O&M plan include a requirement to review the emergency manual at intervals not exceeding 15 months, but at least once each calendar year, and make appropriate changes as necessary to ensure it is effective?*

- Assets Covered **Ferndale Storage Terminal**  
 Result Notes **Located in Facility Pipeline Manual - 1.3 Review of Manuals**
104. Question Result, ID, References **Sat, EP.ERL.LIAISON.P, 195.402(a) (195.402(c)(12), 195.440(c), API RP 1162 Section 4.4)**  
 Question Text *Does the O&M plan include processes for establishing and maintaining liaison with appropriate fire, police and other public officials and utility owners?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **Located in Facility Pipeline Manual - 6.4 Public Official Liaison Requirements**
105. Question Result, ID, References **Sat, EP.ERL.NOTICES.P, 195.402(a) (195.402(e)(1))**  
 Question Text *Does the emergency plan include processes for receiving, identifying, and classifying notices of events which need immediate response and providing notice to operator personnel or to fire, police or other appropriate officials, as appropriate, for corrective action?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **Located in Facility Pipeline Manual - 6.0 Emergency Response Procedures, 6.1 Emergency Response Plan, 6.2 Receiving, Identifying, and Classifying Notices of Emergency Events - 6.7 Personnel, Equipment, Tools, and Materials Availability**
106. Question Result, ID, References **Sat, EP.ERL.RESPONSE.P, 195.402(a) (195.402(c)(4), 195.402(c)(6), 195.402(e)(2), 195.402(e)(10))**  
 Question Text *Does the emergency plan include processes for making a prompt and effective response to a notice of each type of emergency, fire, explosion, accidental release of a hazardous liquid, operational failure, or natural disaster affecting the pipeline?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **Located in Facility Pipeline Manual - 6.0 Emergency Response Procedures, 6.1 Emergency Response Plan, 6.2 Receiving, Identifying, and Classifying Notices of Emergency Events - 6.7 Personnel, Equipment, Tools, and Materials Availability**
107. Question Result, ID, References **Sat, EP.ERL.READINESS.P, 195.402(a) (195.402(e)(3))**  
 Question Text *Does the emergency plan include processes to ensure the availability of personnel, equipment, instruments, tools, and materials as needed at the scene of an emergency?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **Located in Facility Pipeline Manual - 6.0 Emergency Response Procedures, 6.1 Emergency Response Plan, 6.2 Receiving, Identifying, and Classifying Notices of Emergency Events - 6.7 Personnel, Equipment, Tools, and Materials Availability**
108. Question Result, ID, References **Sat, EP.ERL.RELEASEREDUCE.P, 195.402(a) (195.402(e)(4))**  
 Question Text *Does the emergency plan include processes for taking necessary action; such as an emergency shutdown or pressure reduction, to minimize the volume released from any section of a pipeline system in the event of a failure?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **Located in Facility Pipeline Manual - 6.5 Emergency Shutdowns**
109. Question Result, ID, References **Sat, EP.ERL.HAZREDUCE.P, 195.402(a) (195.402(c)(11), 195.402(e)(5))**  
 Question Text *Does the emergency plan include processes for controlling the release of liquid at an accident scene to minimize the hazards, including possible ignition in the cases of flammable HVLs?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **Located in Facility Pipeline Manual - 2.6 Fire Control Systems, 4.12 Prevention of Accidental Ignition, 6.3 Reduce Hazard Potential, 6.4 Public Official Liaison, Petrogas EOHS 300-ERP**
110. Question Result, ID, References **Sat, EP.ERL.PUBLICHAZ.P, 195.402(a) (195.402(e)(6))**  
 Question Text *Does the emergency plan include procedures for minimizing public exposure to injury and probability of accidental ignition by assisting with evacuation, assisting with halting traffic on roads and railroads, or taking other appropriate action?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **Located in Facility Pipeline Manual - 6.3 Reduce Hazard Potential, 6.4 Public Official Liaison, Petrogas EOHS 300-ERP**

111. Question Result, ID, References **Sat, EP.ERL.AUTHORITIES.P, 195.402(a) (195.402(e)(7))**  
 Question Text *Does the emergency plan include processes for notifying fire, police, and other appropriate public officials of hazardous liquid emergencies and coordinating with them preplanned and actual responses during an emergency, including additional precautions necessary for an emergency involving HVLs?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **Located in Facility Pipeline Manual - 6.3 Reduce Hazard Potential, 6.4 Public Official Liaison, Petrogas EOHS 300-ERP**
112. Question Result, ID, References **Sat, EP.ERL.HVLMESURE.P, 195.402(a) (195.402(e)(8))**  
 Question Text *Does the emergency plan include processes for determining the extent and coverage of vapor cloud and hazardous areas of HVLs by using appropriate instruments?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **Located in Facility Pipeline Manual - 2.6 Fire Control System, 6.8 Gas Releases, Petrogas EOHS 300-ERP**

## EP.ETR: Emergency Training of Personnel

113. Question Result, ID, References **Sat, EP.ETR.TRAINING.P, 195.403(a)**  
 Question Text *Has a continuing training program to instruct emergency response personnel been established and conducted?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **Located in Facility Pipeline Manual - 8.0 Operator Training and Testing**

## FS.TSAPIINSPECT: Tanks and Storage - Inspection

114. Question Result, ID, References **Sat, FS.TSAPIINSPECT.BOINSRVCINSP.P, 195.402(c)(3) (195.432(b))**  
 Question Text *Does the process describe the interval and method for performing routine in-service inspections of steel atmospheric or low pressure breakout tanks?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **Located in Facility Pipeline Manual - 4.16 Tank Inspections, MIP 601 Aboveground Storage Tank Inspection**
115. Question Result, ID, References **Sat, FS.TSAPIINSPECT.BOEXTINSP.P, 195.402(c)(3) (195.432(b))**  
 Question Text *Does the process describe the interval and method for performing external inspections of breakout tanks that are steel (atmospheric or low pressure) tanks?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **Located in Facility Pipeline Manual - 4.16 Tank Inspections, MIP 601 Aboveground Storage Tank Inspection**
116. Question Result, ID, References **Sat, FS.TSAPIINSPECT.BOEXTUTINSP.P, 195.402(c)(3) (195.432(b))**  
 Question Text *Does the process describe the interval and method for performing external, ultrasonic thickness inspections of breakout tanks that are steel (atmospheric or low pressure) tanks?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **Located in Facility Pipeline Manual - 4.16 Tank Inspections, MIP 601 Aboveground Storage Tank Inspection**
117. Question Result, ID, References **Sat, FS.TSAPIINSPECT.BOINTINSP.P, 195.402(c)(3) (195.432(b))**  
 Question Text *Does the process describe the interval and method for performing formal internal inspections of breakout tanks that are steel (atmospheric or low pressure) tanks?*  
 Assets Covered **Ferndale Storage Terminal**  
 Result Notes **Located in Facility Pipeline Manual - 4.16 Tank Inspections, MIP 601 Aboveground Storage Tank Inspection**
118. Question Result, ID, References **Sat, FS.TSAPIINSPECT.BOEXTINSPAPI2510.P, 195.402(c)(3) (195.432(c))**



Question Text *Does the process describe the interval and method for performing visual external inspections of in-service pressure steel aboveground breakout tanks built to API Standard 2510?*

Assets Covered **Ferndale Storage Terminal**

Result Notes **Located in Facility Pipeline Manual - 4.16 Tank Inspections, MIP 601 Aboveground Storage Tank Inspection**

119. Question Result, ID, References **Sat, FS.TSAPIINSPECT.BOINTINSPAPI2510.P, 195.402(c)(3) (195.432(c))**

Question Text *Does the process describe the interval and method for performing internal inspections of in-service pressure steel aboveground breakout tanks built to API Standard 2510?*

Assets Covered **Ferndale Storage Terminal**

Result Notes **Located in Facility Pipeline Manual - 4.16 Tank Inspections, MIP 601 Aboveground Storage Tank Inspection**

## **FS.FG: Facilities General**

120. Question Result, ID, References **Sat, FS.FG.SIGNAGE.P, 195.402(c)(3) (195.434)** (also presented in: PD.SN)

Question Text *Does the process require operator signs to be posted around each pump station and breakout tank area?*

Assets Covered **Ferndale Storage Terminal**

Result Notes **Located in Facility Pipeline Manual - 4.2 Linemarkers, Signs and Security, MIP 202 ROW Inspection and Maintenance**

121. Question Result, ID, References **Sat, FS.FG.IGNITION.P, 195.402(c)(3) (195.438)** (also presented in: PD.SN)

Question Text *Does the process prohibit smoking and open flames in each pump station and breakout tank area, or where there is the possibility of the leakage of a flammable hazardous liquid or the presence of flammable vapors?*

Assets Covered **Ferndale Storage Terminal**

Result Notes **Located in Facility Pipeline Manual - 4.12 Prevention of Accidental Ignition**

122. Question Result, ID, References **Sat, FS.FG.PROTECTION.P, 195.402(c)(3) (195.436)** (also presented in: PD.SN)

Question Text *Does the process require facilities to be protected from vandalism and unauthorized entry?*

Assets Covered **Ferndale Storage Terminal**

Result Notes **Located in Facility Pipeline Manual - 4.2 Linemarkers, Signs and Security, MIP 202 ROW Inspection and Maintenance**

123. Question Result, ID, References **Sat, FS.FG.FIREPROT.P, 195.402(c)(3) (195.430(a), 195.430(b), 195.430(c))**

Question Text *Does the process require firefighting equipment at pump station/breakout tank areas?*

Assets Covered **Ferndale Storage Terminal**

Result Notes **Located in Facility Pipeline Manual - 2.6 Fire Control System**

## **FS.TS: Tanks and Storage**

124. Question Result, ID, References **Sat, FS.TS.PRVTSTHVLBO.P, 195.402(c)(3) (195.428(b))**

Question Text *Does the process require inspection and testing of pressure relief valves on HVL pressure breakout tanks at the required frequency?*

Assets Covered **Ferndale Storage Terminal**

Result Notes **Located in Facility Pipeline Manual - 2.1.6.1 Overpressure Protection, 4.13 Overpressure Safety Devices & Overfill Protection Systems**

125. Question Result, ID, References **Sat, FS.TS.OVERFILLBO.P, 195.402(c)(3) (195.428(a), 195.428(c), 195.428(d))**

Question Text *Does the process require adequate testing and inspection of overfill devices on aboveground breakout tanks at the required interval? [Note: This question applies to both non-HVL and HVL pressure breakout tanks.]*

Assets Covered **Ferndale Storage Terminal**

Result Notes Located in Facility Pipeline Manual - 2.1.6.1 Overpressure Protection, 4.13 Overpressure Safety Devices & Overfill Protection Systems

126. Question Result, ID, References Sat, FS.TS.IGNITIONBO.P, 195.402(c)(3) (195.405(a))  
Question Text Does the process describe how the operator protects against ignitions arising out of static electricity, lightning, and stray currents during operation and maintenance activities of aboveground breakout tanks?  
Assets Covered Ferndale Storage Terminal  
Result Notes Located in Facility Pipeline Manual - 4.12 Prevention of Accidental Ignition
127. Question Result, ID, References NA, FS.TS.FLOATINGROOF.P, 195.402(c)(3) (195.405(b))  
Question Text Does the process associated with access/egress onto floating roofs of in-service aboveground breakout tanks to perform inspection, service, maintenance or repair activities of in-service tanks indicate that the operator has reviewed and considered the potentially hazardous conditions, safety practices and procedures in API Publication 2026?  
Assets Covered Ferndale Storage Terminal  
Result Notes No such relevant facilities/equipment existed in the scope of inspection review.

### IM.HC: High Consequence Areas

128. Question Result, ID, References NA, IM.HC.HCALOCATION.P, 195.452(f)(1) (195.452(a), 195.452(d)(3), 195.452(b)(2))  
Question Text Does the process require the identification of HCA-affecting pipe segments include steps to identify, document, and maintain up-to-date geographic locations and boundaries of HCAs using the NPMS and other information sources as necessary?  
Assets Covered Ferndale Storage Terminal  
Result Notes No such relevant facilities/equipment existed in the scope of inspection review.

### MO.LO: Liquid Pipeline Operations

129. Question Result, ID, References Sat, MO.LO.OMHISTORY.P, 195.402(a) (195.402(c)(1), 195.404(a), 195.404(a)(1), 195.404(a)(2), 195.404(a)(3), 195.404(a)(4), 195.404(c)(1), 195.404(c)(2), 195.404(c)(3))  
Question Text Does the process address making construction records, maps, and operating history available as necessary for safe operation and maintenance?  
Assets Covered Ferndale Storage Terminal  
Result Notes Located in Facility Pipeline Manual - 4.17 Records and Maps

### PD.SN: Facilities Signage and Security

130. Question Result, ID, References Sat, FS.FG.IGNITION.P, 195.402(c)(3) (195.438) (also presented in: FS.FG)  
Question Text Does the process prohibit smoking and open flames in each pump station and breakout tank area, or where there is the possibility of the leakage of a flammable hazardous liquid or the presence of flammable vapors?  
Assets Covered Ferndale Storage Terminal  
Result Notes Located in Facility Pipeline Manual - 4.12 Prevention of Accidental Ignition
131. Question Result, ID, References Sat, FS.FG.PROTECTION.P, 195.402(c)(3) (195.436) (also presented in: FS.FG)  
Question Text Does the process require facilities to be protected from vandalism and unauthorized entry?  
Assets Covered Ferndale Storage Terminal  
Result Notes Located in Facility Pipeline Manual - 4.2 Linemarkers, Signs and Security, MIP 202 ROW Inspection and Maintenance
132. Question Result, ID, References Sat, FS.FG.SIGNAGE.P, 195.402(c)(3) (195.434) (also presented in: FS.FG)  
Question Text Does the process require operator signs to be posted around each pump station and breakout tank area?  
Assets Covered Ferndale Storage Terminal  
Result Notes Located in Facility Pipeline Manual - 4.2 Linemarkers, Signs and Security, MIP 202 ROW Inspection and Maintenance

## TD.ATM: Atmospheric Corrosion

133. Question Result, ID, References **Sat, TD.ATM.ATMCORRODECOAT.P, 195.402(c)(3) (195.581(a), 195.581(b), 195.581(c))**  
Question Text *Does the process give adequate instruction for the protection of pipeline against atmospheric corrosion?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **Located in Facility Pipeline Manual - 2.3.4 Atmospheric Corrosion Monitoring**
134. Question Result, ID, References **Sat, TD.ATM.ATMCORRODEINSP.P, 195.402(c)(3) (195.583(a), 195.583(b), 195.583(c))**  
Question Text *Does the process give adequate instruction for the inspection of aboveground pipeline segments exposed to the atmosphere?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **Located in Facility Pipeline Manual - 2.3.4 Atmospheric Corrosion Monitoring**

## TD.CPBO: External Corrosion - Breakout Tank Cathodic Protection

135. Question Result, ID, References **Sat, TD.CPBO.BO651.P, 195.402(c)(3) (195.565, 195.563(d))**  
Question Text *Does the process describe when cathodic protection must be installed on breakout tanks?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **Located in Facility Pipeline Manual - 2.3 Corrosion Control Program, MIP 501 Cathodic Protection, MIP 504 Tank Coating Inspection & Repairs**
136. Question Result, ID, References **Sat, TD.CPBO.BO.P, 195.402(c)(3) (195.573(d))**  
Question Text *Does the process adequately detail when and how cathodic protection systems will be inspected on breakout tanks?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **Located in Facility Pipeline Manual - 2.3 Corrosion Control Program, MIP 501 Cathodic Protection**
137. Question Result, ID, References **Sat, TD.CPBO.DEFICIENCYBO.P, 195.402(c)(3) (195.573(e))**  
Question Text *Does the process require correction of any identified deficiencies in corrosion control for breakout tanks?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **Located in Facility Pipeline Manual - 2.3 Corrosion Control Program, MIP 501 Cathodic Protection**

## TD.CPMONITOR: External Corrosion - Cathodic Protection Monitoring

138. Question Result, ID, References **Sat, TD.CPMONITOR.MONITORCRITERIA.P, 195.402(c)(3) (195.571)**  
Question Text *Does the process require that CP monitoring criteria be used that is acceptable?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **Located in Facility Pipeline Manual - 2.1.1 Codes and Standards, 2.3 Corrosion Control Program, MIP 302 Exposed Pipe Inspection, MIP 501 Cathodic Protection, MIP 502 Internal Corrosion Control**
139. Question Result, ID, References **Sat, TD.CPMONITOR.INTFRCURRENT.P, 195.402(c)(3) (195.577(a), 195.577(b))**  
Question Text *Does the operator have a process in place to minimize detrimental effects of interference currents on its pipeline system and do the procedures for designing and installing cathodic protection systems provide for the minimization of detrimental effects of interference currents on existing adjacent metallic structures?*  
Assets Covered **Ferndale Storage Terminal**  
Result Notes **Located in Facility Pipeline Manual - 2.3 Corrosion Control Program, 5.12.2 Interference Currents, MIP 501 Cathodic Protection**

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Report Parameters: Results: all

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