Results and Notes Review

CR.CRMGEN: General

Question ID, References	CR.CRMGEN.CRMCRITERIA.P , 192.631(a)(2)
Question Text	*Does the process adequately address criteria by which the operator determines which of its facilities are control rooms?*
Result	**Sat**
Assets Covered	CRM - NWN, CRM - Backup
Result Notes	CRM Plan document, Definition Section, Control Room , page 5.

Question ID, References	CR.CRMGEN.CRMMGMT.P , 192.631(a)(2)
Question Text	*Are CRM procedures formalized and controlled?*
Result	**Sat**
Assets Covered	CRM - NWN, CRM - Backup
Result Notes	Policy and Procedure , CRM-A100 Document version Control

Question ID, References	CR.CRMGEN.CRMIMPLEMENT.R , 192.631(a)(2)
Question Text	*Were procedures approved, in place, and implemented on or before the regulatory deadline?*
Result	**Sat**
Assets Covered	CRM - NWN, CRM - Backup
Result Notes	CRM plan document, introduction PAGE 1

Question ID, References	CR.CRMGEN.CRMPROCLOCATION.O , 192.631(a)(2)
Question Text	*Are procedures readily available to controllers in the control room?*
Result	**Sat**
Assets Covered	CRM - NWN, CRM - Backup

Result Notes CRM manual readily available

CR.CRMRR: Roles and Responsibilities

Question ID, CR.CRMRR.RESPONSIBLE.P , 192.631(b)
References

Question Text *Are there clear processes to describe each controller's physical domain of responsibility for pipelines and other facility assets?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan document, Roles and Responsibilities (b) Physical Domain of Responsibility, page 13

Question ID, CR.CRMRR.QUALCONTROL.P , 192.631(b)
References

Question Text *Are there provisions in place to assure that only qualified individuals may assume control at any console/desk?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan document, Roles and Responsibility Section - Controllers, Page 10.

Question ID, CR.CRMRR.DOMAINCHANGE.P , 192.631(b)
References

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?*

Result NA

Assets Covered CRM - NWN, CRM - Backup

Result Notes N/A - Physical domain of responsibility doesn't "periodically" change at Gas control OPS

Question ID, CR.CRMRR.AUTHORITYABNORMAL.P , 192.631(b)(2)
References

Question Text *Have processes been established to define the controllers' authority and responsibilities when an abnormal operating condition is detected?*

Result	**Sat**
Assets Covered	CRM - NWN, CRM - Backup
Result Notes	CRM Plan document, Roles and Responsibilities(b), Abnormal Operation conditions, page 11-12

Question ID, References	CR.CRMRR.RESPCHANGE.P , 192.631(b)
Question Text	*Do processes address a controller's role during temporary impromptu (unplanned) changes in controller responsibilities?*
Result	NA
Assets Covered	CRM - NWN, CRM - Backup
Result Notes	No temporary changes in controller responsibilities.

Question ID, References	CR.CRMRR.COMMANDVERIFY.P , 192.631(b)
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?*
Result	**Sat**
Assets Covered	CRM - NWN, CRM - Backup
Result Notes	CRM Plan document, Roles and Responsibilities (b), Physical domain of Responsibility, page 13.

Question ID, References	CR.CRMRR.PRESSLIMITS.O , 192.631(b)(2) (192.619(a); 192.631(e)(1))
Question Text	*Are controllers aware of the current MAOPs of all pipeline segments for which they are responsible, and have they been assigned the responsibility to maintain those pipelines at or below the MAOP?*
Result	**Sat**
Assets Covered	CRM - NWN, CRM - Backup
Result Notes	MAOP readily available using Mapframe program.

Question ID,	CR.CRMRR.AUTHORITYEMERGENCY.P , 192.631(b)(3)

References

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?*

Result   **Sat**

Assets Covered   CRM - NWN, CRM - Backup

Result Notes   CRM Plan document, roles and Responsibilities(b), Emergency Operating Conditions, page 12.

Question ID, References   CR.CRMRR.EVACUATION.P , 192.631(b)(3)

Question Text   *Do processes specifically address the controller's responsibilities in the event the control room must be evacuated?*

Result   **Sat**

Assets Covered   CRM - NWN, CRM - Backup

Result Notes   Policy and Procedure, CRM B200 Control Room Evacuation

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Question ID, References   CR.CRMRR.COMMSYSFAIL.P , 192.631(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?*

Result   **Sat**

Assets Covered   CRM - NWN, CRM - Backup

Result Notes   CRM Plan document, Roles and Responsibilities (b), Controller Responsibility During a SCADA outage, Page 13

Question ID, References   CR.CRMRR.HANDOVER.P , 192.631(b)(4) (192.631(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?*

Result   **Sat**

Assets Covered   CRM - NWN, CRM - Backup

Result Notes Policy and Procedure, CRM C100 shift Change

Question ID, CR.CRMRR.HANDOVERDOC.P , 192.631(b)(4) (192.631(c)(5))
References

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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Policy and Procedure, CRM C100 Shift Change

Question ID, CR.CRMRR.HANDOVERDOC.R , 192.631(b)(4) (192.631(c)(5))
References

Question Text *Are there records that 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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Reviewed sample shift change reports, 04-07-16 and 08-10-15.

Question ID, CR.CRMRR.HANDOVEROVERLAP.P , 192.631(b)(4)
References

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

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Policy and Procedure, CRM C100 Shift Change

Question ID, CR.CRMRR.HANDOVERALTERNATIVE.P , 192.631(b)(4)
References

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?

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes   Policy and Procedure, CRM C100 Shift Change, 3.3

Question ID, CR.CRMRR.UNATTENDCONSOLE.P , 192.631(b)(4)
References

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

Result NA

Assets Covered CRM - NWN, CRM - Backup

Result Notes NA - Facilitates are included in control room so that the operator does not need to leave the counsel for any reason.

Question ID, CR.CRMRR.CONSOLECOVERAGE.P , 192.631(b)(4)
References

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

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Policy and Procedure, CRM C100, Shift Change

CR.SCADA: Supervisory Control and Data Acquisition

Question ID, CR.SCADA.SYSTEMMOC.P , 192.631(c)(1)
References

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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM plan document, provide information (C), page 14

Question ID, References CR.SCADA.DISPLAYCONFIG.P , 192.631(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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM plan document, provide information (C), page 14

Question ID, References CR.SCADA.1165HUMANFACTORS.R , 192.631(c)(1)

Question Text *Has section 4 of API RP 1165 regarding human factors engineering been implemented?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Control room Factor and work Practices, Page 19, High performance HMI Philosophy and Style Guide address the elements of Section 4.

Question ID, References CR.SCADA.DISPLAYOBJECTS.O , 192.631(c)(1)

Question Text *Has section 8 of API RP 1165 regarding display object characteristics been implemented?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Reviewed outlet on new screen

Question ID, References CR.SCADA.DISPLAYDYNAMICS.R , 192.631(c)(1)

Question Text *Has section 9 of API RP 1165 regarding display object dynamics been implemented?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes   Control room Factor and work Practices, Page 8, High performance HMI Philosophy and Style Guide address the elements of Section 9.

Question ID, CR.SCADA.ADMINISTRATION.R , 192.631(c)(1)
References

Question Text *Have applicable paragraphs of section 11 of API RP 1165 administration been implemented?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Section 11 addresses consistency so they address consistency by publishing the High performance HMI Philosophy and Style Guide, which is the standard for their system.

Question ID, CR.SCADA.1165IMPRACTICAL.R , 192.631(c)(1)
References

Question Text *If any/all applicable paragraph(s) of API RP 1165 have not been implemented, has it been demonstrated and documented that the unimplemented provisions are impractical for the SCADA system used?*

Result NA

Assets Covered CRM - NWN, CRM - Backup

Result Notes All applicable paragraphs of API RP 1165 have been implemented.

Question ID, CR.SCADA.SETPOINT.P , 192.631(c)(2)
References

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

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan Document, Definition Section,, Safety Related and Safety Related alarm, page 7, Safety related points are liste on Safety Related Tag Setpoints list.

Question ID, References CR.SCADA.SETPOINT.R , 192.631(c)(2)

Question Text *Do records indicate safety-related points have been adequately implemented?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Report: Safety Related Tag Set points and Descriptions

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Question ID, References CR.SCADA.POINTVERIFY.P , 192.631(c)(2)

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

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan Document, Provide Information, Point to Point Validation , page 14-15

Question ID, References CR.SCADA.POINTVERIFY.R , 192.631(c)(2)

Question Text *Have required point-to-point verifications been performed?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Reviewed sample of annual reports for point-to-point verification.

Question ID, References CR.SCADA.POINTVERIFYEXTENT.P , 192.631(c)(2)

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

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan Document, Point to Point Validation appears adequate.

Question ID, References CR.SCADA.POINTVERIFYEXTENT.R , 192.631(c)(2)

Question Text *Do records demonstrate adequate thoroughness of the point-to-point*

verification?

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Sample one time validation report for Washington 01-01-2015 through 03-31-2016, Sample Annual Transducer Calibration Report - 01-01-2015 through 03-31-2016.

Question ID, CR.SCADA.POINTVERFIYINTVL.P , 192.631(c)(2)
References

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

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Standard Practice, SPW 741, Pressure Telemetry and Recording Pressure Gauges

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Question ID, CR.SCADA.POINTVERFIYINTVL.R , 192.631(c)(2)
References

Question Text *Do records indicate the point-to-point verification has been completed at the required intervals?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Sample one time validation report for Washington 01-01-2015 through 03-31-2016, Sample Annual Transducer Calibration Report - 01-01-2015 through 03-31-2016. Sample shows annual interval for point to point verification.

Question ID, CR.SCADA.COMMPLAN.P , 192.631(c)(3)
References

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

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Policy and Procedure, CRM 300, Internal Communications for Manual Operations

Question ID, CR.SCADA.COMMPLAN.R , 192.631(c)(3)
References

Question Text *Has the internal communication plan been tested and verified for manual operation of the pipeline safely at least once each calendar year but at intervals not exceeding 15 months?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Reviewed sample of manual operations that were performed per manual operations procedures.

Question ID, CR.SCADA.BACKUPSCADA.O , 192.631(c)
References

Question Text *Is there a backup SCADA system?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Backup servers for SCADA are located at Sherwood Operations Center

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Question ID, CR.SCADA.BACKUPSCADADEV.P , 192.631(c)(4)
References

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

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Yes, DR server located at Sherwood Operations Center

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Question ID, CR.SCADA.BACKUPSCADATEST.R , 192.631(c)(4)
References

Question Text *Is the backup SCADA system tested at least once each calendar year at intervals not to exceed 15 months?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Backup SCADA Test Records for 04-30-15, reviewed sample of records for test.

Question ID, References CR.SCADA.BACKUPSCADAVERIFY.R , 192.631(c)(4)

Question Text *Does the testing verify that there are adequate processes in place for decision-making and internal communications to successfully implement a transition from primary SCADA to backup SCADA, and back to primary SCADA?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Reviewed record of backup Scadia test for 04-30-15.

Question ID, References CR.SCADA.BACKUPSCADAADEQUACY.R , 192.631(c)(4)

Question Text *If the back-up SCADA system is not designed to handle all the functionality of the main SCADA system, does the testing determine whether there are adequate procedures in place to account for displaced and/or different available functions during back-up operations?*

Result NA

Assets Covered CRM - NWN, CRM - Backup

Result Notes Backup SCADIA system has full functionality of the main SCACIA system . Redundant control rooms and redundant servers at each location.

Question ID, References CR.SCADA.BACKUPSCADATRANSFER.P , 192.631(c)(4)

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

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM-B200 Control Room Evacuation

Question ID, References CR.SCADA.BACKUPSCADARETURN.P , 192.631(c)(4)

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

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes   CRM-B200 Control Room Evacuation addresses returning operations to primary control room.

Question ID, CR.SCADA.BACKUPSCADAFUNCTIONS.R , 192.631(c)(4)
References

Question Text *Is a representative sampling of critical functions in the back-up SCADA system being tested to ensure proper operation in the event the backup system is needed?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Reviewed back up SCADA test on 04-30-15.

CR.CRMFM: Fatigue Management

Question ID, CR.CRMFM.FATIGUEMITIGATION.P , 192.631(d)
References

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

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Fatigue Risk Management Plan, 3.2 Factors Contribution to Potential Fatigue Risk, 8-10

Question ID, CR.CRMFM.FATIGUERISKS.P , 192.631(d)
References

Question Text *Does the fatigue mitigation plan adequately address how the program reduces the risk associated with controller fatigue?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Fatigue Risk Management Plan, Section 1.0 Executive Summary, page 3, Paragraph 3.

Question ID, CR.CRMFM.FATIGUEQUANTIFY.P , 192.631(d)
References

Question Text *Do processes require that the potential contribution of controller fatigue to incidents and accidents be quantified during investigations?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan document, Operating Experience, page 22

Question ID, References CR.CRMFM.FATIGUEMANAGER.P , 192.631(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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Fatigue Risk Management Plan, 2.7 Responsibility and Accountability, Page 7.

Question ID, References CR.CRMFM.SHIFTLENGTH.R , 192.631(d)(1)

Question Text *Is the scheduled shift length less than or equal to 12 hours (not including shift hand-over) or is there 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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Reviewed sample schedules for 2015 and 2016, they use a slow rotating 12 hour schedule.

Question ID, References CR.CRMFM.SHIFTLENGTHTIME.R , 192.631(d)(1)

Question Text *Does the operator factor in all time the individual is working for the company when establishing shift lengths and schedule rotations or is there 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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Fatigue Risk Management, Section 4.2.2 defines the hours of work, all hours are considered hours worked.

Question ID, References CR.CRMFM.SCHEDULEDTIMEOFF.R , 192.631(d)(1)

Question Text *Are all scheduled periods of time off at least one hour longer than 8 hours plus commute time or is there 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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan, Shift Lengths and Rotations, Page 16 Schedule appears to provide adequate time off between shifts.

Question ID, References CR.CRMFM.ONCALLCONTROLLER.R , 192.631(d)(1)

Question Text *For controllers who are on call, does the operator minimize interrupting the required 8 hours of continuous sleep or is there 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?*

Result NA

Assets Covered CRM - NWN, CRM - Backup

Result Notes NWN does not use on call controllers.

Question ID, References CR.CRMFM.MAXHOS.P , 192.631(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 a reduction of the risk associated with controller fatigue?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM plan, Shift guidelines, page 17

Question ID, References CR.CRMFM.MINTIMEOFF.P , 192.631(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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan, Fatigue Mitigation, Shift Guidelines, page 17

Question ID, References CR.CRMFM.DOCSCHEDULE.P , 192.631(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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Fatigue Risk management Plan, Section 4.1, Level 1: Sufficient Staffing Levels, page 15.

Question ID, References CR.CRMFM.DAYSOFF.P , 192.631(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?*

Result NA

Assets Covered CRM - NWN, CRM - Backup

Result Notes NWN Controllers do not use a normal business hour type operation.

Question ID, References CR.CRMFM.WORKHOURS.R , 192.631(d)(4)

Question Text *For normal business hour type operations (i.e., five days per week), do records indicate shift start times no earlier than 6:00 a.m. and shift end times no later than 7:00 p.m.?*

Result NA

Assets Covered CRM - NWN, CRM - Backup

Result Notes   NWN Controllers do not use a normal business hour type operation.

Question ID, CR.CRMFM.FATIGUECOUNTERMEASURES.P , 192.631(d)(4)
References

Question Text   *For shifts longer than 8 hours, have specific fatigue countermeasures been implemented for the ninth and beyond hours?*

Result   **Sat**

Assets Covered   CRM - NWN, CRM - Backup

Result Notes   Fatigue Risk Management Plan, Section 4.5.5, Specific Fatigue Mitigation Countermeasures, page 21

Question ID, CR.CRMFM.DAILYHOSLIMIT.P , 192.631(d)(4)
References

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

Result   **Sat**

Assets Covered   CRM - NWN, CRM - Backup

Result Notes   CRM Plan Document, Fatigue Mitigation (d), Shift Guidelines, page 17.

Question ID, CR.CRMFM.CONTROLLERNUMBERS.O , 192.631(d)
References

Question Text   *Do operations include a sufficient number of qualified controllers?*

Result   **Sat**

Assets Covered   CRM - NWN, CRM - Backup

Result Notes   Appear to have sufficient controllers per Workload Analysis

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Question ID, CR.CRMFM.OFFDUTYHOURS.P , 192.631(d)(4)
References

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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes   CRM Plan Document, Fatigue Mitigation (d), Shift Guidelines, page 17.

Question ID, CR.CRMFM.SHIFTHOLDOVER.P , 192.631(d)(4)
References

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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes   CRM Plan Document, Fatigue Mitigation (d), Shift Guidelines, page 17.

Question ID, CR.CRMFM.SPECIFICCOUNTERMEASURES.P , 192.631(d)(4)
References

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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Fatigue Risk management Plan, Section 4.5.5, Specific Fatigue Mitigation Countermeasures, page 21.

Question ID, CR.CRMFM.HOSDEVIATIONS.P , 192.631(d)(4)
References

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

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Fatigue Risk Management Plan, Section 4.2.3, Deviation from the hours of work Guidelines, page 16

Question ID, References CR.CRMFM.FATIGUEEDUCATE.P , 192.631(d)(2) (192.631(d)(3))

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

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Fatigue Risk Management Plan, Refresher and Ongoing Training 4.3.2, page 18-19.

Question ID, References CR.CRMFM.FATIGUEEDUCATE.R , 192.631(d)(2) (192.631(d)(3))

Question Text *Is fatigue education/training documented for all controllers and control room supervisors?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Reviewed Fatigue Management education Certificates from 12/2015.

Question ID, References CR.CRMFM.FATIGUEREFRESHER.R , 192.631(d)(2) (192.631(d)(3))

Question Text *Is refresher fatigue education provided at regular intervals?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Reviewed Fatigue Management education Certificates from 12/2015 and 2014.

Question ID, References CR.CRMFM.FATIGUEREVIEW.P , 192.631(d)(2) (192.631(d)(3))

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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Fatigue Risk Management Plan, Section 4.3.3, Evaluation of Training, page 19.

**Question ID,
References** CR.CRMFM.FATIGUESTRATEGY.P , 192.631(d)(2)

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

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Reviewed Online Training Outline, Circadian

**Question ID,
References** CR.CRMFM.OFFDUTY.P , 192.631(d)(2)

Question Text *Does fatigue education address how off-duty activities contribute to fatigue?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Reviewed Online Training Outline, Circadian

**Question ID,
References** CR.CRMFM.FATIGUECONTENT.P , 192.631(d)(3)

Question Text *Is the content of fatigue training adequate for training controllers and supervisors to recognize the effects of fatigue?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Fatigue Risk Management Plan 4.5.2, Self Monitoring and Peer Monitoring, page 20.

**Question ID,
References** CR.CRMFM.FATIGUECONTENT.R , 192.631(d)(3)

Question Text *Has controller and supervisor training to recognize the effects of fatigue been documented?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes   Fatigue Training Records for 2015 and Circadian Online Training Outline.

CR.CRMAM: Alarm Management

Question ID, CR.CRMAM.ALARM.P , 192.631(e)
References

Question Text   *Is the alarm management plan a formal process that specifically identifies critical topical areas included in the program?*

Result   **Sat**

Assets Covered   CRM - NWN, CRM - Backup

Result Notes   Alarm Management Plan document, Table of contents.

Question ID, CR.CRMAM.ALARMMALFUNCTION.P , 192.631(e)(1)
References

Question Text   *Is there a process to identify and correct inaccurate or malfunctioning alarms?*

Result   **Sat**

Assets Covered   CRM - NWN, CRM - Backup

Result Notes   Policy and Procedure CRM E400, Managing Inaccurate Alarms and Unreliable Data

Question ID, CR.CRMAM.ALARMREVIEW.P , 192.631(e)(1)
References

Question Text   *Does the review of safety-related alarms account for different alarm designs and all alarm types/priorities?*

Result   **Sat**

Assets Covered   CRM - NWN, CRM - Backup

Result Notes   Alarm Management Plan: Alarm Annunciation and Response, page 3, Suppressing Alarms, page 5

Question ID, CR.CRMAM.CONTROLLERPERFORMANCE.P , 192.631(e)(1)
References

Question Text   *Does the review of safety-related alarms account for individual-specific controller qualification and performance?*

Result   NA

Assets Covered   CRM - NWN, CRM - Backup

Result Notes NWN Control Consols are all the same and they are built on the same standard, only one qualification is required.

Question ID, References CR.CRMAM.STALEDATA.P , 192.631(e)(1)

Question Text *Does the review of safety-related alarms include specific procedures and practices for managing stale or unreliable data?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Policy and Procedure, CRM E400, Managing Inaccurate Alarms and Unreliable Data, 3.3

Question ID, References CR.CRMAM.MONTHLYANALYSIS.P , 192.631(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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Policy and Procedure, CRM E200, Alarm and Auditing Verification, Scope and Policy Statement

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Question ID, References CR.CRMAM.PROBLEMCORRECTION.P , 192.631(e)(2)

Question Text *Does the alarm management plan include a process for promptly correcting identified problems and for returning these points to service?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Policy and Procedure, CRM E200, Alarm and Auditing Verification, Scope and Policy Statement

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Question ID, CR.CRMAM.ALARMSETPOINTS.P , 192.631(e)(3)

References

Question Text *Is there a formal process to determine the correct alarm setpoint values and alarm descriptions?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Policy and Procedure, CRM E100, accuracy of Safety Related Setpoint.

Question ID, References CR.CRMAM.SETTINGCONTROL.P , 192.631(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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Alarm Management Plan, Suppressing Alarms, Page 5

Question ID, References CR.CRMAM.PLANREVIEW.P , 192.631(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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan Document, Alarm Management, page 18.

Question ID, References CR.CRMAM.PLANREVIEW.R , 192.631(e)(4)

Question Text *Do records indicate review of 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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Annual Review Checklist Record for 2015 and 2014

Question ID, References CR.CRMAM.WORKLOAD.P , 192.631(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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan, Alarm Management, Activity Review, page 19

Question ID, References CR.CRMAM.WORKLOADMONITORING.P , 192.631(e)(5)

Question Text *Is the process of monitoring and analyzing general activity comprehensive?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Workload Analysis completed by Pipeline Performance Group (PPG), various Sections

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Question ID, References CR.CRMAM.CONTROLLERREACTION.P , 192.631(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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes   Workload Analysis completed by Pipeline Performance Group (PPG), various Sections

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Question ID, References CR.CRMAM.PERFORMANCEANALYSIS.R , 192.631(e)(5)

Question Text *Has an analysis been performed to determine if controller(s) performance is currently adequate?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Reviewed Employee Annual Performance Management for Eugene Clark, analysis appears adequate.

Question ID, References CR.CRMAM.DEFICIENCIES.P , 192.631(e)(6)

Question Text *Is there a process to address how deficiencies found in implementing 192.631(e)(1) through 192.631(e)(5) will be resolved?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Policy and Procedure, CRM E200 Alarm Auditing and Verification, Policy

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Question ID, References CR.CRMAM.DEFICIENCIES.R , 192.631(e)(6)

Question Text *Do records indicate deficiencies found in implementing 192.631(e)(1) through 192.631(e)(5) have been resolved?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Reviewed sample of Alarm Deficiency Log 2015

CR.CRMCMGT: Change Management

Question ID, References CR.CRMCMGT.EQUIPMENTCHANGES.P , 192.631(f)(1)

Question Text *Is there a process to assure changes in field equipment that could affect control room operations are coordinated with the control room personnel?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan Documentation, Change Management (f), page 20.

Question ID, References CR.CRMCMGT.CONTROLLERPARTICIPATE.P , 192.631(f)(1) (192.631(f)(3))

Question Text *Are control room representative(s) required to participate in meetings where changes that could directly or indirectly affect the hydraulic performance or configuration of the pipeline (including routine maintenance and repairs) are being considered, designed and implemented?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan Documentation, Change Management (f), page 20.

Question ID, CR.CRMCMGT.CONTROLLERPARTICIPATE.R , 192.631(f)(1) (192.631(f)(3))
References

Question Text *Do records indicate that control room representative(s) participate in meetings where changes that could directly or indirectly affect the hydraulic performance or configuration of the pipeline (including routine maintenance and repairs) are being considered, designed and implemented?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Reviewed Sample of Engineering Change Procedure that shows Controller participation with a required signature.

Question ID, CR.CRMCMGT.EMERGENCYCONTACT.P , 192.631(f)(2)
References

Question Text *Is there a process requiring field personnel and SCADA support personnel to contact the control room when emergency conditions exist?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan documentation, Change Management (f), page 20

Question ID, CR.CRMCMGT.FIELDCONTACT.P , 192.631(f)(2)
References

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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan documentation, Change Management (f), page 20

Question ID, CR.CRMCMGT.FIELDCHANGES.R , 192.631(f)(2)
References

Question Text *Do records indicate field personnel and SCADA support personnel contacted the control room when making field changes (for example, moving a valve) that affect control room operations?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Reviewed record of Procedure EP-15-082 and EP-15-109 for 8/10/2015, Reviewed both documents and found process steps for contacting Gas Control at the beginning and end of each project.

CR.CRMEXP: Operating Experience

Question ID, CR.CRMEXP.ABNORMALREVIEW.P , 192.631(g)(1)
References

Question Text *Is there a formal, structured approach for reviewing and critiquing reportable events to identify lessons learned?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan documentation, Operating Experience (g), page 22.

Question ID, CR.CRMEXP.ABNORMALREVIEW.R , 192.631(g)(1)
References

Question Text *Do records indicate reviews of reportable events specifically analyzed all contributing factors to determine if control room actions contributed to the event, and corrected any deficiencies?*

Result NA

Assets Covered CRM - NWN, CRM - Backup

Result Notes N/A - No Incident Review Forms associated with the Control Room or controllers were recorded during time frame.

Question ID, CR.CRMEXP.LESSONSLEARNED.P , 192.631(g)(2)
References

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?

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan documentation, Operating Experience (g), page 22

Question ID, CR.CRMEXP.LESSONSLEARNED.R , 192.631(g)(2)
References

Question Text *Has operating experience review training been conducted on lessons learned from a broad range of events (reportable incidents/accidents, near misses, leaks, operational and maintenance errors, etc.)?*

Result NA

Assets Covered CRM - NWN, CRM - Backup

Result Notes   N/A - No Incident Review Forms associated with the Control Room or controllers were recorded during time frame.

CR.CRMTRAIN: Training

Question ID, CR.CRMTRAIN.CONTROLLERTRAIN.P , 192.631(h)
References

Question Text *Has a controller training program been established to provide training for each controller to carry out their roles and responsibilities?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan, Training, page 23.

Question ID, CR.CRMTRAIN.CONTROLLERTRAIN.R , 192.631(h)
References

Question Text *Has a controller training program been implemented to provide training for each controller to carry out their roles and responsibilities?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Reviewed trailing standard for Steve McGinnis which includes the courses and

dates courses were completed.

Question ID, References CR.CRMTRAIN.TRAININGREVIEW.P , 192.631(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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Northwest Natural Training Guidance Document, section Annual review and approval of training program, page 4

Question ID, References CR.CRMTRAIN.TRAININGREVIEW.R , 192.631(h)

Question Text *Have processes been implemented 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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Reviewed Annual Review Checklist

Question ID, References CR.CRMTRAIN.TRAININGCONTENT.R , 192.631(h)

Question Text *Does training content address all required material, including training each controller to carry out the roles and responsibilities that were defined by the operator?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Reviewed trailing standard for Steve McGinnis which includes the courses and dates courses were completed.

Question ID, References CR.CRMTRAIN.AOCLIST.R , 192.631(h)(1)

Question Text *Has a list of the abnormal operating conditions that are likely to occur*

simultaneously or in sequence been established?

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes List is found in Gas Control Training Manual, Examples of Abnormal Operation Conditions, page 53

Question ID, References CR.CRMTRAIN.TRAININGABNORMAL.P , 192.631(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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Gas Control Training Manual, Examples of Abnormal Operating Conditions, page 53

Question ID, References CR.CRMTRAIN.TRAINING.R , 192.631(h)(2)

Question Text *Do records indicate the training program used a simulator or tabletop exercises to train controllers how to recognize and respond to abnormal operating conditions?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Controller training is scenario based and does not use a tabletop to train controllers how to recognize abnormal operating conditions.

Question ID, References CR.CRMTRAIN.TRAINING.O , 192.631(h)(2)

Question Text *Does the training program use a simulator or tabletop exercises to train controllers how to recognize and respond to abnormal operating conditions?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes NWN uses scenario based training where lessons learned on the job are incorporated into the training.

Question ID, References CR.CRMTRAIN.COMMUNICATIONTRAINING.P , 192.631(h)(3)

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

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Gas Control training manual, Communication

Question ID, References CR.CRMTRAIN.SYSKNOWLEDGE.P , 192.631(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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Gas Control Training Program, Pipeline 101 Section, Page 13-17

Question ID, References CR.CRMTRAIN.INFREQOPSLIST.R , 192.631(h)(5)

Question Text *Has a list of pipeline operating setups that are periodically (but infrequently) used been established?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Gas Control Training Manual, Infrequent procedures, Page 96.

Question ID, References CR.CRMTRAIN.INFREQOPSREVIEW.P , 192.631(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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan documentation, Change Management (f), page 20

CR.CRMCOMP: Compliance Validation and Deviations

Question ID, References	CR.CRMCOMP.SUBMITPROCEDURES.P , 192.631(i)
Question Text	*Are there adequate processes to assure that the operator is responsive to requests from applicable agencies to submit their CRM procedures?*
Result	**Sat**
Assets Covered	CRM - NWN, CRM - Backup
Result Notes	CRM Plan document, Compliance Validation (i), page 24

Question ID, References	CR.CRMCOMP.SUBMITPROCEDURES.R , 192.631(i)
Question Text	*Has the operator been responsive to requests from applicable agencies to submit their CRM procedures?*
Result	**Sat**
Assets Covered	CRM - NWN, CRM - Backup
Result Notes	Manuals are available from NWN by request.

Question ID, References	CR.CRMCOMP.CRMCOORDINATOR.R , 192.631(i)
Question Text	*Is there an individual that is responsible and accountable for compliance with requests from PHMSA or other applicable agencies?*
Result	**Sat**
Assets Covered	CRM - NWN, CRM - Backup
Result Notes	CRM Plan document, Compliance Validation (i), page 24

Question ID, References	CR.CRMCOMP.RECORDS.P , 192.631(j)(1)
Question Text	*Records management processes adequate to assure records are sufficient to demonstrate compliance with the CRM rule?*
Result	**Sat**
Assets Covered	CRM - NWN, CRM - Backup

Question ID, CR.CRMCOMP.RECORDS.R , 192.631(j)(1)
References

Question Text *Are records sufficient to demonstrate compliance with the CRM rule?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Records reviewed appear to be adequate.

Question ID, CR.CRMCOMP.ELECTRONICRECORDS.R , 192.631(j)(1)
References

Question Text *Are electronic records properly stored, safeguarded, and readily retrievable?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes Electronic records reviewed appear to be adequate.

Question ID, CR.CRMCOMP.DEVIATIONS.P , 192.631(j)(2)
References

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?*

Result **Sat**

Assets Covered CRM - NWN, CRM - Backup

Result Notes CRM Plan Document, Compliance and Deviations, page 25

Question ID, CR.CRMCOMP.DEVIATION.R , 192.631(j)(2)
References

Question Text *Were all deviations documented in a way that demonstrates they were necessary for safe operation?*

Result NA

Assets Covered CRM - NWN, CRM - Backup

Result Notes No reportable deviations for the reporting period.

DC.DPCOPP: Design of Pipe - Overpressure Protection

Question ID, References DC.DPCOPP.OVERPRESSURE.O , 192.195(a) (192.199(a); 192.199(b); 192.199(c); 192.199(d); 192.199(e); 192.199(f); 192.199(g); 192.199(h); 192.201(a); 192.201(b); 192.201(c))

Question Text *Are required pressure relieving or pressure limiting devices being installed, and do they meet the requirements of 192.199 and 192.201?*

Result NA

Assets Covered CRM - NWN

Result Notes No such activity/condition was observed during the inspection.

DC.DPC: Design of Pipe Components

Question ID, References DC.DPC.VALVESPACE.O , 192.141 (192.179(a); 192.179(b); 192.179(c); 192.179(d))

Question Text *Are transmission line valves being installed as required of 192.179?*

Result NA

Assets Covered CRM - NWN

Result Notes No such activity/condition was observed during the inspection.

Question ID, References DC.DPC.INTCORRODE.O , 192.476(a) (192.476(b); 192.476(c))

Question Text *Does the transmission project's design and construction comply with 192.476?*

Result NA

Assets Covered CRM - NWN

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

DC.MO: Maintenance and Operations

Question ID, References DC.MO.MAOPLIMIT.O , 192.605(b)(5)

Question Text *During startup or shut-in, is it assured that the pressure limitations on the pipeline were not exceeded?*

Result NA

Assets Covered CRM - NWN

Result Notes No such activity/condition was observed during the inspection.

EP.ERG: Emergency Response

Question ID, EP.ERG.LOCATION.O , 192.615(b)(1)
References

Question Text *Are supervisors provided the applicable portions of the emergency plan and procedures?*

Result NA

Assets Covered CRM - NWN

Result Notes No such requirement existed in the scope of inspection review.

MO.GOCLASS: Gas Pipeline Class Location

Question ID, MO.GO.CONTSURVEILLANCE.O , 192.613(a) (192.613(b); 192.703(a);
References 192.703(b); 192.703(c)) (also presented in: MO.GO)

Question Text *Are unsatisfactory conditions being captured and addressed by continuing surveillance of facilities and the pipeline as required by 192.613?*

Result NA

Assets Covered CRM - NWN

Result Notes No such activity/condition was observed during the inspection.

MO.GM: Gas Pipeline Maintenance

Question ID, MO.GM.VALVEINSPECT.O , 192.745(a) (192.745(b))
References

Question Text *Are field inspection and partial operation of transmission line valves adequate?*

Result NA

Assets Covered CRM - NWN

Result Notes No such activity/condition was observed during the inspection.

MO.GO: Gas Pipeline Operations

Question ID, MO.GO.CONTSURVEILLANCE.O , 192.613(a) (192.613(b); 192.703(a);
References 192.703(b); 192.703(c)) (also presented in: MO.GOCLASS)

Question Text *Are unsatisfactory conditions being captured and addressed by continuing surveillance of facilities and the pipeline as required by 192.613?*

Result NA

Assets Covered CRM - NWN

Result Notes No such activity/condition was observed during the inspection.

Question ID, MO.GO.OMHISTORY.O , 192.605(b)(3)
References

Question Text *Are construction records, maps and operating history available to appropriate operating personnel?*

Result **Sat**

Assets Covered CRM - NWN

Result Notes Records and maps are available to controllers in hard copy and electronically.

Question ID, MO.GO.OMLOCATION.O , 192.605(a)
References

Question Text *Are appropriate parts of the manual kept at locations where operations and maintenance activities are conducted?*

Result **Sat**

Assets Covered CRM - NWN

Result Notes Copy of manual is readily available to controllers.

MO.GMOPP: Gas Pipeline Overpressure Protection

Question ID, MO.GMOPP.PRESSREGTEST.O , 192.739(a) (192.739(b); 192.743)
References

Question Text *Are field or bench tests or inspections of regulating stations, pressure limiting stations or relief devices adequate?*

Result NA

Assets Covered CRM - NWN

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

MO.RW: ROW Markers, Patrols, Leakage Survey and Monitoring

Question ID, References	MO.RW.ROWMARKER.O , 192.707(a) (192.707(b); 192.707(c); 192.707(d)) (also presented in: PD.RW)
Question Text	*Are line markers placed and maintained as required?*
Result	NA
Assets Covered	CRM - NWN
Result Notes	No such activity/condition was observed during the inspection.

Question ID, References	MO.RW.ROWCONDITION.O , 192.705(a) (192.705(c)) (also presented in: PD.RW)
Question Text	*Are the ROW conditions acceptable for the type of patrolling used?*
Result	NA
Assets Covered	CRM - NWN
Result Notes	No such activity/condition was observed during the inspection.

PD.RW: ROW Markers, Patrols, Monitoring

Question ID, References	MO.RW.ROWMARKER.O , 192.707(a) (192.707(b); 192.707(c); 192.707(d)) (also presented in: MO.RW)
Question Text	*Are line markers placed and maintained as required?*
Result	NA
Assets Covered	CRM - NWN
Result Notes	No such activity/condition was observed during the inspection.

Question ID, References	MO.RW.ROWCONDITION.O , 192.705(a) (192.705(c)) (also presented in: MO.RW)
Question Text	*Are the ROW conditions acceptable for the type of patrolling used?*
Result	NA
Assets Covered	CRM - NWN
Result Notes	No such activity/condition was observed during the inspection.

TD.ATM: External Corrosion - Atmospheric

Question ID, TD.ATM.ATMCORRODEINSP.O , 192.481(b) (192.481(c); 192.479(a); 192.479(b);
References 192.479(c))

Question Text *Is pipe that is exposed to atmospheric corrosion protected?*

Result NA

Assets Covered CRM - NWN

Result Notes No such activity/condition was observed during the inspection.

TD.CPMONITOR: External Corrosion - CP Monitoring

Question ID, TD.CPMONITOR.MONITORCRITERIA.O , 192.463(a)
References

Question Text *Are methods used for taking CP monitoring readings that allow for the application of appropriate CP monitoring criteria?*

Result NA

Assets Covered CRM - NWN

Result Notes No such event occurred, or condition existed, in the scope of inspection review.

Question ID, TD.CPMONITOR.CURRENTTEST.O , 192.465(b)
References

Question Text *Are impressed current sources properly maintained and are they functioning properly?*

Result NA

Assets Covered CRM - NWN

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

Question ID, TD.CPMONITOR.TESTLEAD.O , 192.471(a) (192.471(b); 192.471(c); 192.469)
References

Question Text *Do pipelines with cathodic protection have electrical test leads installed in accordance with requirements of Subpart I?*

Result NA

Assets Covered CRM - NWN

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

Question ID, TD.CPMONITOR.INTFRCURRENT.O , 192.473(a)
References

Question Text *Are areas of potential stray current identified, and if found, the detrimental effects of stray currents minimized?*

Result NA

Assets Covered CRM - NWN

Result Notes No such event occurred, or condition existed, in the scope of inspection review.

TD.CP: External Corrosion - Cathodic Protection

Question ID, TD.CP.ELECISOLATE.O , 192.467(a) (192.467(b); 192.467(c); 192.467(d);
References 192.467(e))

Question Text *Are measures performed to ensure electrical isolation of 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?*

Result NA

Assets Covered CRM - NWN

Result Notes No such activity/condition was observed during the inspection.