

## Results and Notes Review

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### 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 Unit Avista Control Room

Result Notes CRMP Sec 1, para 2.1

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**Question ID, References** [CR.CRMGEN.CRMMGMT.P](#) , 192.631(a)(2)

Question Text *Are CRM procedures formalized and controlled?*

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP Section 1, 5.3 6.3-4

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**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 Unit Avista Control Room

Result Notes CRmp APPROVED 2011

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**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 Unit Avista Control Room

Result Notes Procedures were readily available.

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**CR.CRMRR: Roles and Responsibilities****Question ID, References** [CR.CRMRR.RESPONSIBLE.P](#) , 192.631(b)

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 Unit Avista Control Room

Result Notes CRMP Sec 1, para 2.1 table

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**Question ID, References** [CR.CRMRR.QUALCONTROL.P](#) , 192.631(b)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CrMP Sec 2, para 4.1, Control room access is restricted.

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**Question ID, References** [CR.CRMRR.DOMAINCHANGE.P](#) , 192.631(b)

Question Text *If the physical domain of responsibility periodically changes, has a clear process been established to describe the*

**Question ID, References** [CR.CRMRR.AUTHORITARIANCHANGE.P](#) , 192.631(b)(2)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP Sec 2, Para 6.2

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**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 **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP Sec 4. Para 6.16 - required to do shift change every-time they come off shift.

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**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 Unit Avista Control Room

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**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 Unit Avista Control Room

Result Notes Observed MAOP and how people access the MAOP information at the desk.

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**Question ID, References** [CR.CRMRR.AUTHORITYEMERGENCY.P](#) , 192.631(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?*

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes crmp sEC 2, pARA 6.2.1 AND aBNORMAL; oPERATIONS nOTE AND cAUTIONS.

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**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 Unit Avista Control Room

Result Notes CRMP Sec 9, Para 6.5.4.5 - Reviewed procedures for 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 Unit Avista Control Room

Result Notes Abnormal Operating Procedure - Pipeliine Opeations Diromg Loss of SCADA communications. One of the AOC

IN THE oq PLAN.

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**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 Unit Avista Control Room

Result Notes Reviewed Shift Change procedure and appears to be adequate.

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**Question ID, References** [CR.CRMRR.HANDOVERDOC.P](#) , 192.631(b)(4) (192.631(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?*

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP Sec 4. Para 6 - Opeators would see any active aoc's until they are resolved.

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

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 Unit Avista Control Room

Result Notes Shift Change Pocedures and reocrds (electronic) document the actual time of shift handover.

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**Question ID, References** [CR.CRMRR.HANDOVEROVERLAP.P](#) , 192.631(b)(4)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP Sec 4, Para 6 referenced 1168,

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**Question ID, References** [CR.CRMRR.HANDOVERALTERNATIVE.P](#) , 192.631(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?*

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP Sec 4, Para 6.1 and Para 6.9 - It is part of a controllers general responsibility.

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**Question ID, References** [CR.CRMRR.UNATTENDCONSOLE.P](#) , 192.631(b)(4)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes cCONSOL IS STAFFED 24/7, CRMP Sec 4 Para 6.1, 6.14.2

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**Question ID, References** [CR.CRMRR.CONSOLECOVERAGE.P](#) , 192.631(b)(4)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes Shift change happens in same location CRMP Section 4, Para 6.

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## CR.SCADA: Supervisory Control and Data Acquisition

**Question ID, References** [CR.SCADA.SYSTEMMOC.P](#) , 192.631(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?*

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP SECTION 3, PARAGRAPHS 1,3 & 5.

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**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 Unit Avista Control Room

Result Notes CRMP Section 3, Para 5.1 -

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**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 Unit Avista Control Room

Result Notes 1165 response section 4 - Human Factors Engineering. 4,1 Short Term Memory, 4.1 - Signal to noise ratio.

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**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 Unit Avista Control Room

Result Notes Colors and characteristics are similar to 1165 screens I have seen before.

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**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 Unit Avista Control Room

Result Notes API Resopnse Document- Maks sur that telemetry object dynamics are accounted for .

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**Question ID, References** [CR.SCADA.ADMINISTRATION.R](#) , 192.631(c)(1)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes 1165 Section 11 Consistency within a company - No other control centeres.

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**Question ID, References** [CR.SCADA.1165IMPRACTICAL.R](#) , 192.631(c)(1)

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 Unit Avista Control Room

Result Notes Avista has been able to incorporated the applicable parts of 1165.

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**Question ID, References** [CR.SCADA.SETPOINT.P](#) , 192.631(c)(2)

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

**Result Sat**

Assets Covered Unit Avista Control Room

Result Notes ARS & Alarm rationalization process, CRMP Sec 3, Para 6.3

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**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 Unit Avista Control Room

Result Notes Review 2014 Alarm Sheet Comparison - Compared to previous sheets 2012 & 2013

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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 Unit Avista Control Room

Result Notes Reviewed Point to Point Verification Procedure Revision 8-26-2014

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**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 Unit Avista Control Room

Result Notes Logged into control room Most of the point to point are done when there is a change or a calibration. New alarm, Replaced Alarm, Calibrated, SetPoint change alarm, and SCADA Display Chg.

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**Question ID, References** [CR.SCADA.POINTVERIFEXTENT.P](#) , 192.631(c)(2)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes Point to Point Verification Procedure Revision 8-26-2014 appears to be adequate.

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**Question ID, References** [CR.SCADA.POINTVERIFEXTENT.R](#) , 192.631(c)(2)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes Point to Point Verification Procedure Revision 8-26-2014 appears to be adequate.

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**Question ID, References** [CR.SCADA.POINTVERFIYINTVL.P](#) , 192.631(c)(2)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes Point to Point Verification Procedure Revision 8-26-2014 appears to be adequate.

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**Question ID, References** [CR.SCADA.POINTVERFIYINTVL.R](#) , 192.631(c)(2)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes Point to point only has annual field calibration as an annual inspection.

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**Question ID, References** [CR.SCADA.COMMPLAN.P](#) , 192.631(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?*

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes Operations duirn loss of communications and/of Scada function. Review Pages 1-6 and and perfomed June 10, 2013  
DE.

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**Question ID, References** [CR.SCADA.COMMPLAN.R](#) , 192.631(c)(3)

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 Unit Avista Control Room

Result Notes Will reviewed Internal Communication Drill for 2013 and drill from 2012.

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**Question ID, References** [CR.SCADA.BACKUPSCADA.O](#) , 192.631(c)

Question Text *Is there a backup SCADA system?*

Result **NA**

Assets Covered Unit Avista Control Room

Result Notes Avista has no backup SCADA System.

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**Question ID, References** [CR.SCADA.BACKUPSCADADEV.P](#) , 192.631(c)(4)

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

Result **NA**

Assets Covered Unit Avista Control Room

Result Notes Avista has no backup SCADA System.

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**Question ID, References** [CR.SCADA.BACKUPSCADATEST.R](#) , 192.631(c)(4)

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

Result **NA**

Assets Covered Unit Avista Control Room

Result Notes Avista has no backup SCADA System.

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**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 **NA**

Assets Covered Unit Avista Control Room

Result Notes Avista has no backup SCADA System.

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**Question ID, References** [CR.SCADA.BACKUPSCADADEQUACY.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 Unit Avista Control Room

Result Notes Avista has no backup SCADA System.

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**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 NA**

Assets Covered Unit Avista Control Room

Result Notes Avista has no backup SCADA System.

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**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 NA**

Assets Covered Unit Avista Control Room

Result Notes (none)

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**Question ID, References** [CR.SCADA.BACKUPSCADAFUNCTIONS.R](#) , 192.631(c)(4)

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 **NA**

Assets Covered Unit Avista Control Room

Result Notes Avista has no backup SCADA System.

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## CR.CRMFM: Fatigue Management

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

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP sEC 5.5.1, 6.2.3

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

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP Sec 5, Para 6.2.2-3

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

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP sEC 5, pARA 6.9 & sEC 8, pARA 5.2

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**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 Unit Avista Control Room

Result Notes CRMP sEC. 5 PARA 5.2 - aPPEARS TO COVER THE REQUIREMENTS OF fATIGUE MITIGATION.

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**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 Unit Avista Control Room

Result Notes SHIFT LENGTH IS 12 hours. - Modified dupont schedule.

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**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 Unit Avista Control Room

Result Notes CRMP Sec 5, Para 6.1.2 and the Circadian documentation.

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**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 Unit Avista Control Room

Result Notes CRMP SECTION 5, pARA 6,2.5 - eVEN THE LONGEST COMMUST GIVes time for 8 hours of rest.

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**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 Unit Avista Control Room

Result Notes Do not use on call controllers.

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**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 Unit Avista Control Room



Result Notes CRMP Sec 5. Para 6.8.4

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**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 Unit Avista Control Room

Result Notes CRMP Sec 5. Para 6.8.2-3

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**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 Unit Avista Control Room

Result Notes CRMP Sec 2 Para 6.7.7.2

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**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 Unit Avista Control Room

Result Notes Avista does not work day only work hours for controllers.

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**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 Unit Avista Control Room

Result Notes Avista does not work day only work hours for controllers.

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**Question ID, References** [CR.CRMFM.FATIGUECOUNTERMEASURES.P](#) , 192.631(d)(4)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP Section 5 para 6.7

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**Question ID, References** [CR.CRMFM.DAILYHOSLIMIT.P](#) , 192.631(d)(4)

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 Unit Avista Control Room

Result Notes CRMP Sec 5 para 6.8.1

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**Question ID, References** [CR.CRMFM.CONTROLLERNUMBERS.O](#) , 192.631(d)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes Evaluation is that there is sufficient people. Ratio of 4.96

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**Question ID, References** [CR.CRMFM.OFFDUTYHOURS.P](#) , 192.631(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?*

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP Sec 5, Para 6.8.2 & 6.8.7.6

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**Question ID, References** [CR.CRMFM.SHIFTHOLDOVER.P](#) , 192.631(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?*

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP Sec 5, Para 6.8 & 7.1

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**Question ID, References** [CR.CRMFM.SPECIFICCOUNTERMEASURES.P](#) , 192.631(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?*

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP Sec 5, Para 6.7.1

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**Question ID, References** [CR.CRMFM.HOSDEVIATIONS.P](#) , 192.631(d)(4)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP Sec 5, Para 6.8.9 - Compliance and deviation form.

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**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 Unit Avista Control Room

Result Notes CRMP Sec 5, Para 6.4.1 - Training by Veriforce.

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**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 Unit Avista Control Room

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**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 **Unsat**

Assets Covered Unit Avista Control Room

Summary Avista has changed Fatigue Education providers to Verican. Verican seems to be timely with scheduling refreshers for certification.

Result Notes tRAINING FOR CONTROLLERS TRAINING EXCEEDED THE 15 MONTH WINDOW ON TRAINING

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**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 Unit Avista Control Room

Result Notes CRMP sEC 5 pAR 6.4.5

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**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 Unit Avista Control Room

Result Notes CRMP sEC 5 pAR 6.4.7.8

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**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 Unit Avista Control Room

Result Notes CRMP sEC 5 pAR 6.4.7.11 Page 4 of Veriforce Document

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**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 Unit Avista Control Room

Result Notes Training appear to be adequate.

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**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 Unit Avista Control Room

Result Notes Reviewed certifications and all are current.

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**CR.CRMAM: Alarm Management****Question ID, References** [CR.CRMAM.ALARM.P](#) , 192.631(e)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes Alarm management plan seems adequate - CRMP Sec 6

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**Question ID, References** [CR.CRMAM.ALARMMALFUNCTION.P](#) , 192.631(e)(1)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP sEC 6 pAR 6.8.1 -

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**Question ID, References** [CR.CRMAM.ALARMREVIEW.P](#) , 192.631(e)(1)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP Sec 6 Sec 6.4 - 6.5

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**Question ID, References** [CR.CRMAM.CONTROLLERPERFORMANCE.P](#) , 192.631(e)(1)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes Both Consoles are Identical and alarms are audio and visual.

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**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 Unit Avista Control Room

Result Notes CRMP Sec 6 Para 6.8

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**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 Unit Avista Control Room

Result Notes CRMP Sec 6 Para 6.7 Reviewed Meeting minutes for Feb 2014 & Jun 2014

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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 Unit Avista Control Room

Result Notes CRMP Sec 6 Para 6.6 - Example of process working on June 2014 Alarm management meeting.

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**Question ID, References** [CR.CRMAM.ALARMSETPOINTS.P](#) , 192.631(e)(3)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes Gas Engineering checks for set points are correct on the screen annually, Annual alarm review memo. Also the alarms are reviewed monthly.

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**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*

**Question ID, References** [CR.CRMAM.SETTINGCONTROL.P](#) , 192.631(e)(3) [CR.CRMAM.ALARMSETPOINTS.P](#) , 192.631(e)(3) *Unit set points, or inhibit, alarm, or points off-scan?*



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 Unit Avista Control Room

Result Notes CRMP Sec 6 Para 5.4.7

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**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 Unit Avista Control Room

Result Notes Reviewed for 2012 & 2011

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**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 Unit Avista Control Room

Result Notes CRMP Sec 11 Activity Review Para 6

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**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 Unit Avista Control Room

Result Notes CRMP Sec 11 Para 6.2.1.2 - Activity Review Process is comprehensive.

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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 Unit Avista Control Room

Result Notes CRMP Sec 11 Para 6.2.1.2 - 2013 Activity Review Process found that pt. to Pt. take too much time so they went to a system of scheduling all Pt. to Pt.

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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 Unit Avista Control Room

Result Notes CRMP Sec 11 Para 6.2.1.2 - Reviewed Activity Review Process for 2013 is comprehensive.

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**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 Unit Avista Control Room

Result Notes CRMP Sec 11 Para 6.2.1.2 - 2013 Activity Review Process found that pt. to Pt. take too much time so they went to a system of scheduling all Pt. to Pt.

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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 Unit Avista Control Room

Result Notes CRMP Sec 11 Para 6.2.1.2 - 2013 Activity Review Process found that pt. to Pt. take too much time so they went to a system of scheduling all Pt. to Pt.

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**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 Unit Avista Control Room

Result Notes CRMP Sec 7 Para 4.1.4 & 5.1.2

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**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 Unit Avista Control Room

Result Notes CRMP Sec 7 Para 4.1.5 & 4.5.1

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**Question ID, References** [CR.CRMCMGT.CONTROLLERPARTICIPATE.R](#) , 192.631(f)(1) (192.631(f)(3))

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 Unit Avista Control Room

Result Notes August 2014 - Monthly Meeting - Presented in Meetin Vern Malinsky, E. Berthoff, controllers were in attendance.

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**Question ID, References** [CR.CRMCMGT.EMERGENCYCONTACT.P](#) , 192.631(f)(2)

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 Unit Avista Control Room

Result Notes CRMP Sec 7 Para 4.4 & 5.2

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**Question ID, References** [CR.CRMCMGT.FIELDCONTACT.P](#) , 192.631(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?*

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP Sec 7 Para 4.4.4

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**Question ID, References** [CR.CRMCMGT.FIELDCHANGES.R](#) , 192.631(f)(2)

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 Unit Avista Control Room

Result Notes Reviewed Event Log for example of POS Person on Site for s Ritzville WA.

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### CR.CRMEXP: Operating Experience

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

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP Sec 8 Para 4.2.3 & 5.2.9

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

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 **Sat**

Assets Covered Unit Avista Control Room

Result Notes Reviewed Incident from 12/23/2013 in La Grande, OR. on 02-18-2014.

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

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 Unit Avista Control Room

Result Notes CRMP Sec 8 Para 5.2.9 And Meeting minutes from June 2014 Monthly

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**Question ID, References** [CR.CRMEXP.LESSONSLEARNED.R](#) , 192.631(g)(2)

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 **Sat**

Assets Covered Unit Avista Control Room

Result Notes Placed in Required Readings - CRMP Sec 8 Para 5.2.9 And Meeting minutes from June 2014 Monthly

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## CR.CRMTRAIN: Training

**Question ID, References** [CR.CRMTRAIN.CONTROLLERTRAIN.P](#) , 192.631(h)

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 Unit Avista Control Room

Result Notes CRMP Section 9 Para 1.1 & 6

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**Question ID, References** [CR.CRMTRAIN.CONTROLLERTRAIN.R](#) , 192.631(h)

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 Unit Avista Control Room

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**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 Unit Avista Control Room

Result Notes Training requirements are documented. CRMP Sec 9 Para 5.5

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**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 Unit Avista Control Room

Result Notes reviewed Annual Training Program Review for 2014.

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**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 Unit Avista Control Room

Result Notes Reviewed 2014 Training Program Curriculum - New Controller Orientation.

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**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 Unit Avista Control Room

Result Notes Training Program Module 5 - covers responding to Abnormal Operations

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**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 Unit Avista Control Room

Result Notes CRMP Sec 9 Para 6.5.4

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**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 Unit Avista Control Room

Result Notes Reviewwed record of tabletop for AOC's completed on 6/2014.

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**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 Unit Avista Control Room

Result Notes Tabletop was done on june 2014.

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**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 Unit Avista Control Room

Result Notes CRMP Sec 9 Para 6.5.2.4 & 6.5.4

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**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 Unit Avista Control Room

Result Notes CRMP eCTION 9 pARA 6.4

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**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 **NA**

Assets Covered Unit Avista Control Room

Result Notes No infrequent setups.

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**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 **NA**

Assets Covered Unit Avista Control Room

Result Notes No infrequent setups

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### 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 Unit Avista Control Room

Result Notes CrMP Sec 10 Para 5.1

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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 Unit Avista Control Room

Result Notes Received by email from Avista September 9, 2014

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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 Unit Avista Control Room

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**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 Unit Avista Control Room

Result Notes CRM records appear adequate.

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**Question ID, References** [CR.CRMCOMP.RECORDS.R](#) , 192.631(j)(1)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes Records appear to be adequate.

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**Question ID, References** [CR.CRMCOMP.ELECTRONICRECORDS.R](#) , 192.631(j)(1)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes Sharepoint and Learning System are electronically stored and backed up a tape drive.

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**Question ID, References** [CR.CRMCOMP.DEVIATIONS.P](#) , 192.631(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?*

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes CRMP Sec 10 Para 5.2

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**Question ID, References** [CR.CRMCOMP.DEVIATION.R](#) , 192.631(j)(2)

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

Result **Sat**

Assets Covered Unit Avista Control Room

Result Notes All deviations are recorded, we reviewed deviation from 01-31-2014

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