

Braidwood 1

2Q/2014 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO PERFORM A REQUIRED 10 CFR 50.59 EVALUATION

The inspectors identified a finding of very low safety significance and an associated Severity Level IV NCV of 10 CFR 50.59, "Changes, Tests, and Experiments," when licensee personnel failed to perform and maintain a written evaluation to demonstrate that a procedure change did not require a license amendment. Specifically, the licensee implemented a change to procedures 1/2BwOA SEC-4, "Loss of Instrument Air," Revision 3, that revised the actions to address a loss of component cooling water (CC) to the reactor coolant pump (RCP) thermal barrier heat exchange such that a complete loss of seal cooling could occur, which would result in damage to the RCP seals and a subsequent loss of coolant accident (LOCA). As part of the licensee corrective actions, procedures 1/2 BwOA SEC-4 were revised to address the issue. A revised 10 CFR 50.59 evaluation was also developed and approved. The performance deficiency was determined to be more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," because it could be reasonably viewed as a precursor to a significant event. The inspectors determined the finding could be evaluated using the Significance Determination Process (SDP) in accordance with IMC 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," Table 2, for the Initiating Events cornerstone. The inspectors then answered 'No' to all of the screening questions in Table 3. The finding was further evaluated using IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," Exhibit 1. The inspectors answered 'No' to all of the questions contained therein. Therefore, the inspectors concluded the finding was of very low safety significance (Green). Because the associated finding was determined to be of very low safety significance in accordance with the SDP, the traditional enforcement aspect of this issue was determined to be at the Severity Level IV level. The inspectors did not identify a cross-cutting aspect associated with this finding since it was not indicative of current performance.

Inspection Report# : [2013004](#) (*pdf*)

Significance: G Sep 30, 2013

Identified By: NRC

Item Type: FIN Finding

FAILURE TO PERFORM A REQUIRED 10 CFR 50.59 EVALUATION

The inspectors identified a finding of very low safety significance and an associated Severity Level IV NCV of 10 CFR 50.59, "Changes, Tests, and Experiments," when licensee personnel failed to perform and maintain a written evaluation to demonstrate that a procedure change did not require a license amendment. Specifically, the licensee implemented a change to procedures 1/2BwOA SEC-4, "Loss of Instrument Air," Revision 3, that revised the actions to address a loss of component cooling water (CC) to the reactor coolant pump (RCP) thermal barrier heat exchange such that a complete loss of seal cooling could occur, which would result in damage to the RCP seals and a subsequent loss of coolant accident (LOCA). As part of the licensee corrective actions, procedures 1/2 BwOA SEC-4 were revised to address the issue. A revised 10 CFR 50.59 evaluation was also developed and approved. The performance deficiency was determined to be more than minor in accordance with IMC 0612, "Power Reactor

Inspection Reports,” Appendix B, “Issue Screening,” because it could be reasonably viewed as a precursor to a significant event. The inspectors determined the finding could be evaluated using the Significance Determination Process (SDP) in accordance with IMC 0609, “Significance Determination Process,” Attachment 0609.04, “Phase 1 - Initial Screening and Characterization of Findings,” Table 2, for the Initiating Events cornerstone. The inspectors then answered ‘No’ to all of the screening questions in Table 3. The finding was further evaluated using IMC 0609, Appendix A, “The Significance Determination Process (SDP) for Findings At-Power,” Exhibit 1. The inspectors answered ‘No’ to all of the questions contained therein. Therefore, the inspectors concluded the finding was of very low safety significance (Green). Because the associated finding was determined to be of very low safety significance in accordance with the SDP, the traditional enforcement aspect of this issue was determined to be at the Severity Level IV level. The inspectors did not identify a cross-cutting aspect associated with this finding since it was not indicative of current performance.

Inspection Report# : [2013004](#) (*pdf*)

Significance:  Aug 30, 2013

Identified By: NRC

Item Type: FIN Finding

Failure to Adequately Evaluate SAT Overcurrent Relay Settings in Design Calculations.

The inspectors identified a finding of very low safety significance for the licensee’s failure to ensure the system auxiliary transformer (SAT) 242-1 overcurrent relay provided protection coordination with upstream and downstream protective devices as required by Institute of Electrical and Electronics Engineers (IEEE)-242 and Design Document RPS-TG-3. Specifically, the licensee failed to demonstrate the relays would have provided upstream directional discrimination to allow the offsite power to clear a system fault before disconnecting the plant from the grid. The licensee entered this issue into their corrective action program and after further evaluation concluded the SAT overcurrent relay settings were still acceptable.

The inspectors determined the performance deficiency was more than minor because if left uncorrected, the performance deficiency had the potential to lead to a more significant safety concern. Specifically, it would have increased the likelihood of events that upset plant stability and affected the availability and reliability of the preferred alternating current (AC) power supply. The inspectors determined the finding was of very low safety significance (Green) because it did not cause a reactor trip and the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition. The inspectors did not identify a cross-cutting aspect associated with this finding because the finding was not representative of current performance.

Inspection Report# : [2013007](#) (*pdf*)

Mitigating Systems

Significance:  Mar 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

INADEQUATE AOP ENTRY CRITERIA FOR INTAKE FRAZIL ICING CONDITIONS

The inspectors identified a finding of very low safety significance and an associated NCV of TS 5.4.1, “Procedures” when licensee personnel failed to specify adequate entry conditions in the station Abnormal Operating Procedure (AOP) that would be utilized to monitor and mitigate a frazil icing event at the lake screen house. Specifically, the licensee had established the entry condition of (Lake Temperature = 32 °F) without adequately considering the resources available to the control room operators and supervisors and without accounting for the necessary margin.

The licensee entered this issue into their Corrective Action Program as Issue Reports (IRs) 1613506, and 1617385. Corrective action consisted of changing the entry conditions based specifically upon essential service water temperature with margin to account of uncertainty and heat input. The inspectors determined that the performance deficiency was more than minor because it was associated with the Procedural Quality attribute of the Mitigating System cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, failure to establish and maintain adequate entry conditions into this station AOP could result in additional time for ice to accumulate on plant components before mitigating actions would be initiated. Any delay in mitigating this type of event could increase the likelihood of a loss or partial loss of essential service water event or other type of transient (e.g., loss of instrument air, and reactor trip). A detailed risk evaluation was performed by an NRC Regional Senior Risk Analysis and the significance of this finding was determined to be of very low safety significance (Green). This finding did not have an associated cross cutting aspect because the inspectors determined that the most significant cause of the error was when the entry criteria was established in November 2010 and, therefore, not indicative of recent performance.

Inspection Report# : [2014002](#) (*pdf*)

Significance:  Mar 31, 2014

Identified By: NRC

Item Type: FIN Finding

FAILURE TO ENSURE MITIGATING SYSTEM AVAILABILITY AND RELIABILITY DURING WEATHER CONDITIONS THAT COULD PROMOTE FRAZIL ICE AT THE LAKE SCREEN HOUSE

The inspectors identified a finding of very low safety significance when licensee personnel failed to ensure that the LSH trash rake would be capable of clearing ice buildup on the trash rake bars. Specifically, the licensee failed to ensure that the trash rake system was functional prior to the onset of weather conditions that could promote frazil ice production and after a repair following a trash rake failure during those conditions. The licensee entered this issue into their CAP as IR 1613767, "LSH Trash Rake Will Not Traverse on Rails." The licensee corrected this issue by utilizing a vendor to re-furbish and repair the trash rake. Additionally, the licensee revised their procedures to include additional methods to clear ice from the trash bars. The inspectors determined that the performance deficiency was more than minor because it was associated with the Equipment Performance attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the failure to have any mitigating systems available during weather conditions that could promote frazil icing of the lake intake increased the likelihood of a plant transient including a loss of essential service water event. A detailed risk evaluation was performed by an NRC Regional SRA and the finding was determined to be of very low safety significance (Green). This finding had a cross cutting aspect in the Restoration component of the Problem Identification and Resolution cross-cutting area because the organization failed to take effective corrective action to address a non-functioning LSH trash rake in a timely manner commensurate with safety after restoring the equipment to Operations for use during weather conditions that could promote frazil icing conditions.

Inspection Report# : [2014002](#) (*pdf*)

Significance:  Mar 31, 2014

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO IDENTIFY FIRE DOORS THAT DO NOT CONFORM TO NFPA CODES AND STANDARDS

The inspectors identified a finding of very low safety significance and an associated NCV of Braidwood Operating License Condition 2.E, "Fire Protection Program," when licensee personnel failed to identify fire doors that did not conform to the current licensing basis standard within the National Fire Protection Agency (NFPA) 80 Code that

required fire doors to automatically shut and latch without assistance. Specifically, station personnel were not adequately performing a daily fire door testing procedure and, as a result, failed to identify a number of fire doors that were not conforming to the standard. As a result, IRs were not generated when degraded conditions existed. The licensee entered this issue into their CAP as IR 1629689, "Unclear Direction in 0BwOS FP.7.2.D-1." Corrective actions included training plant operators on the expectations regarding generation of IRs for any abnormal condition in the plant, and requiring the use of a copy of the surveillance procedure in the field while completing the daily fire door surveillance. The inspectors determined that the performance deficiency was more than minor because it is associated with the Protection Against External Factors attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, licensee personnel did not identify a number of fire doors that were not capable of closing and latching without assistance, which impacted the door's ability to perform its design function. Using IMC 0609, Appendix F, Attachment 1, "Fire Protection Significance Determination Process Worksheet," the inspectors determined that the finding category was "Fire Confinement," and that the finding did not impact the ability of the plant to achieve safe shutdown. As a result, the finding screened as having very low safety significance (Green). This finding had a cross cutting aspect in the Procedure Adherence component of the Human Performance cross-cutting area because licensee personnel did not follow procedures, processes and work instructions. Specifically, the licensee did not have the fire door testing procedure in hand while performing the surveillance and did not follow the procedure steps.

Inspection Report# : [2014002](#) (*pdf*)

Significance: N/A Dec 31, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO MAINTAIN ACCURATE OPERATOR LOGS

The inspectors identified a Severity Level IV NCV of 10 CFR 50.9(a), "Completeness and Accuracy of Information," when licensee personnel failed to provide complete and accurate operator logs of record. Specifically, operator log entries of record on May 9, 2013, did not accurately document entry into and exit from Limiting Condition for Operation (LCO) 3.0.3. Initial corrective actions included additional late log entries and issuance of Operations Standing Order 13 10, "Corrections to Electronic Log Entries," which provided interim guidance to operators regarding how to make revisions to electronic log entries. The Operations Director also initiated discussions with the fleet Operations Director peer group to determine how to incorporate guidance on revising electronic logs into procedure OP AA 111 101, "Operating Narrative Logs and Records." The licensee entered this issue into their Corrective Action Program (CAP) as Issue Report (IR) 1519660, "Lack of Details in Log Entries." In consultation with regional enforcement staff, the inspectors determined that the issue was more than minor because operator logs of record are material documents to the NRC, in that inspection activities are planned and conducted based, in part, on the review of operator logs and the presumption of their accuracy. In determining the significance of the violation, the inspectors referenced the examples of violations in Section 6.9, "Inaccurate and Incomplete Information or Failure to a Make a Required Report," of the NRC Enforcement Policy. Because the issue was determined to be more than minor, but did not meet the threshold of the examples of Severity Level I, II, or III violations, the inspectors determined this issue was a Severity Level IV violation. Because a more than minor Reactor Oversight Process finding was not identified, there was no cross cutting aspect associated with this violation.

Inspection Report# : [2013005](#) (*pdf*)

Significance:  Aug 30, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Ensure Six Component Cooling (CC) System Manual Valves Were in the Correct Position as Required by Technical Specification (TS) Surveillance Requirement (SR) 3.7.7.1.

The inspectors identified a finding of very low safety significance (Green) and an associated NCV of Technical Specification Surveillance Requirement 3.7.7.1, for the licensee's failure to ensure six component cooling (CC) system manual valves in the flow path servicing safety-related equipment, that were not locked, sealed, or otherwise secured in position, were verified in the correct position every 31 days. The licensee entered this finding into their Correction Action Program, verified the correct position of the six CC system manual valves, and revised surveillance procedures to include the requirement to periodically verify the correct position of these valves.

The performance deficiency was determined to be more than minor because it was similar to IMC 0612, Appendix E, Example 3.c, since more than one valve was in the required position, but not locked, sealed, or otherwise secured in the correct position, and it impacted the Mitigating Systems cornerstone's objective of ensuring the availability, reliability, and capability of systems to respond to initiating events to prevent undesirable consequences, (i.e., core damage). Since the finding did not represent an actual loss of safety function, the inspectors screened the finding as having very low safety significance (Green). The inspectors did not identify a cross-cutting aspect associated with this finding because the finding was not representative of current performance.

Inspection Report# : [2013007](#) (*pdf*)

Significance:  Aug 30, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Incorporate Accident Flows in Component Cooling Water Pump Net Positive Suction Head Calculations.

The inspectors identified a finding of very low safety significance and associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to incorporate accident flows in component cooling water (CCW) pump net positive suction head (NPSH) available calculations. Specifically, the licensee failed to calculate the NPSH for the CCW pumps using the run-out flows, which would have resulted in much lower available NPSH. The licensee entered this issue into their Corrective Action Program and recalculated the CCW pump available NPSH and determined that margin remained.

The inspectors determined that the performance deficiency was more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the capability of the CCW system to respond to an initiating event to prevent undesirable consequences. Specifically, by failing to consider the accident loads in the CCW pumps NPSH calculations there was reasonable doubt as to whether the CCW pumps would have been operable during accident conditions. The inspectors determined that the finding was of very low safety significance (Green) because it did not result in the loss of operability or an actual loss of the CCW system. The inspectors did not identify a cross cutting aspect associated with this finding because the finding was not representative of current performance.

Inspection Report# : [2013007](#) (*pdf*)

Significance:  Aug 30, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Consider Adequate Tornado Missile Protection in SX Discharge Pipe.

The inspectors identified a finding of very low safety significance and associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to consider design control measures commensurate with those applied to the original essential service water (SX) design related to tornado missile protection. Specifically, the licensee processed a physical modification to the SX discharge pipe and failed to protect or evaluate the exposed portion from potential tornado missiles. The licensee entered this issue into their Corrective Action Program and showed by calculation that the modified SX pipe would shear off upon impact from the design basis tornado missile

and the safety-related portion would be unharmed and capable of performing its intended function.

The inspectors determined that the performance deficiency was more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring the capability of the SX system to respond to an initiating event to prevent undesirable consequences. Specifically, by failing to consider tornado missile protection in the SX design, there was reasonable doubt as to whether the SX pumps would have been operable during accident conditions. Since the finding would degrade two or more trains of a multi-train system or function, the inspectors determined a Detailed Risk-Evaluation was required. Based on the Detailed Risk-Evaluation, the Senior Reactor Analysts determined the delta core damage frequency for the finding was $6.66E-7/\text{yr}$ and was of very low safety significance (Green). The inspectors did not identify a cross-cutting aspect associated with this finding because the finding was not representative of current performance.

Inspection Report# : [2013007](#) (pdf)

Significance:  Aug 30, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Consider Multiple Failures in the Emergency Operating Procedures (EOPs) 1(2)BwEP ES 1.3, “Transfer to Cold leg Recirculation” as Required by Technical Specification.

The inspectors identified a finding of very low safety significance (Green) and an associated NCV of Technical Specification, Section 5.4.1b for the licensee’s failure to establish the necessary actions as required in Emergency Operating Procedures (EOPs) 1(2)BwEP ES 1.3, “Transfer to Cold Leg Recirculation,” Revision 201. Specifically, the licensee failed to ensure EOPs 1(2)BwEP ES 1.3 contained the necessary actions for transition to 1(2)BwCA-1.1, “Loss of Emergency Coolant Recirculation” for a small loss of coolant accident (SLOCA) or medium loss of coolant accident (MLOCA) with a concurrent failure of residual heat removal (RHR) heat exchanger (HX) to safety injection (SI) and centrifugal charging pump (CCP) isolation valves. The licensee entered this finding into their Correction Action Program to revise the subject procedures.

The finding was determined to be more than minor because it was associated with the Mitigating Systems cornerstone attribute of procedure quality and affected the cornerstone’s objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the licensee failed to ensure the procedure for establishing containment sump recirculation for a SLOCA or MLOCA contained the necessary actions for potential equipment failures. Since the finding resulted in the potential for a loss of the containment sump recirculation function during a SLOCA or MLOCA for certain equipment failures when transferring to containment sump recirculation, the inspectors determined a Detailed Risk-Evaluation was required. Based on the Detailed Risk-Evaluation, the Senior Reactor Analysts determined the delta core damage frequency for the finding was $1.0E-8/\text{yr}$. and was of very low safety significance (Green). The inspectors did not identify a cross-cutting aspect associated with this finding because the finding was not representative of current performance.

Inspection Report# : [2013007](#) (pdf)

Barrier Integrity

Significance:  Aug 30, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

Procedures for Shutdown Loss of Coolant Accident (LOCA) Not Appropriate If RCS Leakage Is Isolated.

The inspectors identified a finding of very low safety significance (Green) and associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to ensure abnormal operating Procedures (AOPs) 1(2)BwOA S/D-2, "Shutdown LOCA," Revision 104 (105 for Unit 2) contained the necessary actions to immediately terminate Safety Injection (SI) flow if reactor coolant system (RCS) leakage was isolated. Specifically, the licensee failed to update 1(2)BwOA S/D-2, "Shutdown LOCA" to Revision 2 of the Westinghouse Owners Group (WOG) Abnormal Response Guideline (ARG)-2, "Shutdown LOCA," that resulted in a CAUTION not added to terminate SI flow in a timely manner to prevent RCS over-pressurization, if RCS leakage was isolated. The licensee entered this finding into their Correction Action Program to add the CAUTION statement in the procedure.

The finding was determined to be more than minor because it was associated with the Barrier Integrity cornerstone attribute of procedure quality and affected the cornerstone's objective of providing reasonable assurance that physical design barriers protect the public from radioactive releases caused by accidents or events. Operations in accordance with the procedure may have challenged the RCS barrier during a shutdown LOCA event. Specifically, the licensee failed to update Procedure 1(2)BwOA S/D-2, "Shutdown LOCA" to Revision 2 of the WOG ARG-2, "Shutdown LOCA" guideline that resulted in a CAUTION that was not added to terminate SI flow in a timely manner to prevent RCS over-pressurization, if RCS leakage was isolated. The inspectors conducted an assessment of the risk significance of the issue in accordance with IMC 0609, Appendix G, "Shutdown Operations Significance Determination Process." The inspectors determined the finding did not require a Phase II assessment and was of very low safety significance (Green). The inspectors did not identify a cross-cutting aspect associated with this finding because the finding was not representative of current performance.

Inspection Report# : [2013007](#) (pdf)

Significance:  Sep 30, 2012

Identified By: NRC

Item Type: VIO Violation

FAILURE TO ANALYZE RECYCLE HOLDUP TANK INLET PIPING LOADS

The inspectors identified a finding of very low safety significance (Green) and an associated cited violation (VIO) of 10 CFR 50, Appendix B, Criterion III, "Design Control," when licensee personnel failed to evaluate the effect of dynamic loads on inlet piping from Unit 1 and Unit 2 Residual Heat Removal (RHR) suction relief valves that discharge to the Recycle Holdup Tank (RHUT); and, as a result, failed to verify the adequacy of the RHUT design to withstand design loads that resulted from a discharge from RHR system suction relief valves into the RHUT. As of September 30, 2012, IR 649581, Assignment 8 to resolve the potential over-pressurization of the RHUT had not been completed. At the end of the inspection period, licensee efforts to complete and refine a model to determine whether physical modifications were necessary were still in progress. It remained unclear whether a physical modification would be necessary; when that determination would be made; and if a physical modification was necessary, when that modification would be completed.

The inspectors determined that the licensee's failure to evaluate the effect of dynamic water hammer loads on inlet piping from Unit 1 and Unit 2 RHR suction relief valves that discharge to the RHUT was a performance deficiency. The inspectors determined that the performance deficiency was more than minor because it was associated with the Design Control attribute of the Barrier Integrity Cornerstone and adversely affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Specifically, the licensee's existing design and piping configuration had not addressed water hammer effects when the Unit 1 and Unit 2 RHR suction relief valves were aligned to discharge to the RHUT, which could rupture the inlet piping and potentially affect offsite dose consequences. The NRC Senior Reactor Analysts (SRAs) concluded that the risk significance associated with the finding was of very low safety significance (Green). This finding had a cross-cutting aspect in the Corrective Action Program component of the Problem Identification and Resolution cross-cutting area because the licensee failed to take timely corrective actions to address a previously issued NCV (P.1(d)).

Inspection Report# : [2012004](#) (pdf)

Emergency Preparedness

Significance: N/A Dec 31, 2013

Identified By: NRC

Item Type: NCV NonCited Violation

FAILURE TO SUBMIT A REPORT REQUIRED BY 10 CFR 50.72(b)(3)(xiii)

The inspectors identified a Severity Level IV NCV of 10 CFR 50.72(b)(3)(xiii) when licensee personnel failed to submit a report required by 10 CFR 50.72 for a loss of emergency assessment capability when an unplanned degradation was identified associated with the Technical Support Center (TSC) ventilation filtered make-up train. Specifically, the discharge damper for the TSC ventilation filtered make up fan was found unexpectedly closed, which adversely impacted the ability to supply filtered air to the TSC absent implementation of compensatory actions. Corrective actions included making the required Event Report on January 14, 2014. The licensee entered this issue into their CAP as IR 1598598, "Wording Differences Between NUREG-1022 and Reportability Manual," and IR 1608133, "ENS [Event Notification System] Call Made Due to TSC Ventilation Impact in October 2013." The inspectors determined that this issue had the potential to impact the regulatory process based, in part, on the generic communications input that 10 CFR 50.72 reports serve. Since the issue impacted the regulatory process, it was dispositioned through the traditional enforcement process. The inspectors determined that this issue was a Severity Level IV violation based upon Example 6.d.9 in the NRC Enforcement Policy. Example 6.d.9 specifically stated, "The licensee fails to make a report requirement by 10 CFR 50.72 or 10 CFR 50.73." Because a more than minor Reactor Oversight Process finding was not identified, there was no cross cutting aspect associated with this violation.

Inspection Report# : [2013005](#) (pdf)

Occupational Radiation Safety

Significance:  Dec 31, 2013

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

FAILURE TO FOLLOW PROCEDURE AND TECHNICAL SPECIFICATION ASSOCIATED WITH CONTROL FOR HIGH AND LOCKED HIGH RADIATION AREAS

The inspectors identified a self revealed finding of very low safety significance and an associated NCV of Technical Specification 5.7.1 when licensee personnel failed to adequately monitor and provide positive control over activities within a high radiation area that was greater than 100 millirem per hour (mrem/hr) but less than or equal to 1000 mrem/hr from a radiation source which was created during the cycling of valve 1RH8701B inside the missile barrier in containment. A slug of material dislodged from the valve and was transported to a location that resulted in localized elevated dose rates where an individual was performing work. As an immediate corrective action, the licensee instituted appropriate radiation protection controls and initiated an Apparent Cause Evaluation (ACE) to review the event in more detail. The licensee entered this issue into their CAP as IR 1559430, "ED [Electronic Dosimeter] Dose Rate Alarm Received." The performance deficiency was more than minor because, if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, not evaluating the radiological impact of the slug of radioactive material being transported to an area where a worker was performing work caused the worker to receive unnecessary and unplanned exposure to radiation that if left uncorrected could lead to a more significant safety concern in that a worker could receive a much higher dose under different circumstances. The inspectors determined

that the finding was of very low safety significance (Green) using IMC 0609, Appendix C. This finding had a cross-cutting aspect in the Work Practices component of the Human Performance cross-cutting area because licensee personnel failed to validate and communicate the changing dose rates of the work area after Operations personnel performed work that affected the dose rates in the work area (H.4(a)).

Inspection Report# : [2013005](#) (*pdf*)

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the [cover letters](#) to security inspection reports may be viewed.

Miscellaneous

Last modified : August 29, 2014