Kewaunee
3Q/2011 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Repetitive Molded Case Circuit Breaker Failures
A finding of very low significance and associated non-cited violation of Title 10 of the Code of Federal Regulations (CFR) 50.65(a)(3) was identified by the inspectors for the failure to incorporate industry operating experience into preventive maintenance activities when practical to do so. Specifically, the failure to incorporate the industry operating experience resulted in multiple molded case circuit breaker (MCCB) failures that could have been prevented by implementing an MCCB cycling program. The need to cycle MCCBs was identified in industry operating experience as well as the vendor's instructions for the breakers. The licensee was performing an apparent cause evaluation which was still in progress at the conclusion of the inspection period. Initial corrective actions included scheduling the MCCBs for the breaker cycling maintenance activity.

This finding was determined to be of greater than minor significance because it was associated with the Protection Against External Factors attribute of the Initiating Events Cornerstone and adversely affected the cornerstone objective to limit the likelihood of those events, such as fire, that challenge critical safety functions during shutdown as well as power operations. Specifically, the lack of a cycling program for safety related MCCBs resulted in breakers remaining in the “on” position after an overcurrent condition. The inspectors determined the finding had very low safety significance (Green) because the breakers and associated cabling did not significantly affect safe shutdown defense in depth strategies and the finding did not involve a design or qualification deficiency, did not represent a loss of system safety function, did not represent a loss of Technical Specification equipment for greater than its allowed outage time, and did not affect risk significant equipment per 10 CFR 50.65. This finding has a cross-cutting aspect in the area of human performance, work control, because the licensee did not emphasize the need for work groups to communicate, coordinate, and cooperate with each other during activities in which interdepartmental coordination is necessary to assure plant and human performance.
Inspection Report# : 2011004 *(pdf)*

Significance: G Mar 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Misapplication Of Code Acceptance Criteria For Weld Flaws
A finding of very low safety-significance and associated non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion IX, “Control of Special Processes,” was identified by the inspectors on March 3, 2011, for the licensee’s failure to establish a procedure that incorporated the American Society of Mechanical Engineers Code acceptance criteria for evaluation of flaws detected during ultrasonic examinations. Consequently, the licensee applied incorrect acceptance criteria to the flaws identified during ultrasonic examination of a weld on the chemical and volume control system seal water injection filter 1A housing. Licensee corrective actions included: evaluation of weld flaws to ensure they met applicable Code criteria and revision of a site procedure to incorporate appropriate Code acceptance criteria.

The finding was determined to be more than minor because the finding, if left uncorrected, would become a more significant safety concern. Absent NRC identification, the failure to provide Code acceptance criteria could have allowed components with unacceptable cracks to be returned to service. Cracks in components returned to service would place safety related piping systems at increased risk for through wall leakage and/or failure. The licensee promptly corrected this issue before components with unacceptable flaws were returned to service. The inspectors answered “No” to the Significance Determination Process Phase I screening question, “Assuming worst case degradation, would the finding result in exceeding the Technical Specification (TS) limit for any reactor coolant system leakage or could the finding have likely affected other mitigation systems resulting in a total loss of their

safety function assuming the worst case degradation?" Therefore, this finding screened as having very low safety-significance (Green). This finding has a cross-cutting aspect in the area of human performance, work practices, because the licensee did not effectively implement human error prevention techniques. Specifically, the lack of procedure acceptance criteria was caused by inadequate peer checking during the licensee's review and approval of the procedure for evaluation of non destructive examination data (H.4(a)).
Inspection Report# : 2011002 *(pdf)*

Significance: G Mar 31, 2011
Identified By: Self-Revealing
Item Type: FIN Finding
Partial Loss Of Offsite Power Caused By Less Than Adequate Interface And Oversight Of Switchyard Modification Work
A finding of very low safety-significance was self-revealed for the failure to adequately control relay testing for switchyard breaker installations under Design Change WO KW100691871. Specifically, on March 10, 2011, Dominion Electrical Transmission technicians deviated from standard work practices to test a relay via an internal corporate server, which caused a partial loss of offsite power to the plant through the loss of the main auxiliary transformer backfeed to safety-related bus 6. Licensee corrective actions included a human performance and safety stand down for substation personnel on the day of the event, the development of a mitigating strategy that outlined expectations and implemented increased direct supervision on critical tasks, and the development of a formal memo describing expectations related to the restricted use of the server for performing remote testing of control functions.

The finding was determined to be more than minor because, if left uncorrected, the finding had the potential to lead to a more significant safety concern. Specifically, had a different breaker been inappropriately tripped, the station could have experienced a total loss of offsite power. The inspectors concluded that the finding could be evaluated using Inspection Manual Chapter 0609, Appendix M, "Significance Determination Process Using Qualitative Criteria." Specifically, the inspectors qualitatively evaluated the finding by applying the spent fuel pool questions in the Fuel Barrier column of Table 4a, Attachment 4. The inspectors answered "No" to all three questions and determined that the finding was of very low safety-significance (Green). The finding has a cross-cutting aspect in the areas of human performance, work practices, because supervisory and management oversight of work activities, including contractors, was not implemented for this evolution (H.4(c)).
Inspection Report# : 2011002 *(pdf)*

Significance: G Dec 31, 2010
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure To Follow Red Channel Instrument Test Procedure
A finding of very low safety significance and associated non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed when a nuclear control operator (NCO) failed to perform a procedure step, which resulted in the main feedwater regulating valve FW 7A partially closing while the reactor was at full power. Specifically, Step 6.11.2 of procedure SP-47-316A, "Channel 1 (Red) Instrument Channel Test Channel Operational Test," directed the NCO to place the main feedwater regulating valve FW 7A in manual to preclude valve movement during a simulated portion of the test; however, the NCO marked the step "not applicable" and subsequently did not perform it. The licensee initiated condition reports (CRs) CR396649 and CR405809, performed an apparent cause evaluation (ACE), and initiated corrective actions (CAs) to address the issues identified in the causal evaluation.

The finding was determined to be more than minor in accordance with Inspection Manual Chapter (IMC) 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated December 24, 2009, because it was associated with the Initiating Events Cornerstone attribute of human performance and adversely affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Specifically, the failure to follow the procedure initiated a secondary-side plant transient. 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," Tables 3b and 4a for the Initiating Events Cornerstone, dated January 10, 2008. The inspectors answered "no" to the Initiating Events Cornerstone Transient

Initiator question and screened the finding as having very low significance (Green). The finding has a cross-cutting aspect in the area of human performance, Work Practices, because the personnel work practices did not support human performance. Specifically, licensee personnel failed to follow procedures (H.4(b)).
Inspection Report# : 2010005 *(pdf)*

Mitigating Systems

Significance: G Sep 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Maintain Fire Barrier And Automatic Fire Suppression
A finding of very low safety significance and associated non-cited violation of license condition 2.C(3) of the Kewaunee Power Station Renewed Operating License was identified by inspectors for the failure to have a self-closing fire door that closed and latched each time it was open. License condition 2.C(3) requires, in part, that the licensee implement and maintain, in effect, all provisions of the approved fire protection program as described in the licensee's fire plan. Appendix B of the Kewaunee Power Station Fire Protection Program Plan lists the 1975 edition of NFPA 80 [National Fire Protection Association], "Fire Doors and Windows," as an applicable NFPA code. NFPA 80 states, in part, that a self closing door shall be equipped with a closing device to cause the door to close and latch each time it is opened. The licensee entered the issue into its corrective action program and adjusted the door closing device to ensure the door properly closed when the train A screenhouse ventilation fan was operating.

The inspectors determined that the failure of the door to close and latch was contrary to the requirements of NFPA 80 and was a performance deficiency. The finding was determined to be more than minor because it was associated with the Mitigating Systems Cornerstone attribute of protection against external factors (Fire) 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). The inspectors screened the finding as having very low safety significance (Green). The finding has a cross-cutting aspect in the area of problem identification and resolution, corrective action program, because the licensee did not thoroughly evaluate problems such that the resolutions address causes and extent of conditions. This includes properly classifying, prioritizing, and evaluating for operability and reportability conditions adverse to quality.
Inspection Report# : 2011004 *(pdf)*

Significance: G Sep 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Misapplication Of Technical Specification 3.1.6 Applicability Note
A finding of very low safety significance and associated non-cited violation of Technical Specification (TS) 3.1.6, "Control Bank Insertion Limits," was identified by the inspectors for the failure to comply with TS action condition 3.1.6.A due to incorrect use of the applicability note. Specifically, on August 30, 2011, during the performance of SP-49-075, "Control Rod Exercise," operators received a rod control urgent failure while inserting control bank A group 1 control rods. The test was suspended for troubleshooting for approximately 20 hours with control bank A group 2 control rods, inserted one step below the control rod insertion limit in violation of TS 3.1.6.A action condition. The inspectors concluded that, once the test was suspended for troubleshooting activities, use of the applicability note was not appropriate; therefore, the operators should have complied with the TS 3.1.6.A action condition for control bank A group 2 control rods at that time. On August 31, operators withdrew control bank A group 2 rods one step, which restored the rods to within the limit specified in the core operating limits report. At the end of this inspection period, the licensee was still performing an apparent cause evaluation to determine the causes of the event and to develop corrective actions.

The finding was determined to be more than minor because the finding adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent desirable consequences. Specifically, the human performance attributes of the licensee's failure to recognize the misapplication of the applicability note of the TS affected the capability of systems that respond to initiating events. The inspectors

screened the finding as having very low safety significance (Green) because an actual loss of safety function did not occur. The finding has a cross-cutting aspect in the area of human performance, decision making, because the licensee failed to use conservative assumptions and adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disapprove the action.
Inspection Report# : 2011004 *(pdf)*

Significance: G Sep 30, 2011
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Incorrect Transformer Load Tap Changer Setting Causes Inoperable Offsite Power
A finding of very low safety significance and associated non-cited violation of Technical Specification 3.8.1 was self revealed for the failure to maintain a switchyard transformer load tap changer (LTC) at the appropriate setting for the predicted post trip voltage of offsite power. The incorrect setting resulted in the inoperability of the Reserve Auxiliary Transformer (RAT) offsite power source. The licensee's corrective actions included restoring the RAT supply transformer (RST) LTC to an appropriate setting, creating a short term standing order to prevent operation of the RST LTC outside settings that were supported by the existing interface agreement with the transmission system operator. The licensee performed an apparent cause evaluation, a root cause analysis and also, as a long-term corrective action, modified procedure OP-KW-NOP SUB 003 to prevent operation of the RST LTC outside settings that were supported by the existing interface agreement with the transmission system operator.

The finding was determined to be more than minor because the finding was associated with the Mitigating Systems Cornerstone attribute of configuration control 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). The inspectors screened the finding as having very low safety significance (Green). This finding has a cross-cutting aspect in the area of human performance, resources, because the licensee did not maintain complete, accurate, and up to date procedures for the use of the RST LTC following its installation during the spring 2011 outage.
Inspection Report# : 2011004 *(pdf)*

Significance: G Jun 30, 2011
Identified By: Self-Revealing
Item Type: FIN Finding
Technical Support Center Diesel Generator Output Breaker Fails To Close
A finding of very low safety significance was self revealed for the failure to perform adequate preventive maintenance on latching relay VR1/B46, a relay required for closure of the technical support center (TSC) diesel generator's (DG's) output breaker and automatic restoration of bus 1-46, which powers the TSC DG's cooling system. Specifically, on March 20, 2011, during a partial loss of offsite power event, the TSC DG started but failed to load onto bus 1-46. After approximately 43 minutes of operation, the DG automatically shut down from an over-temperature condition, as designed. The licensee initiated condition report 417289 and performed apparent cause evaluation 018573. The licensee's short-term corrective actions included troubleshooting the initial failure, repairing relay VR1/B46, and restoring the TSC DG to functional status. The licensee's long-term corrective actions were in-progress at the completion of this inspection period.

The finding was determined to be more than minor because it was associated with the Mitigating Systems Cornerstone attribute of equipment performance and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure of the output breaker to close and energize bus 1-46 caused the TSC DG to overheat and automatically shut down during a partial loss of offsite power. The inspectors concluded the finding could be evaluated in accordance with Inspection Manual Chapter 0609, "Significance Determination Process," Attachment 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," Table 4a, for the Mitigating Systems Cornerstone. The inspectors answered "Yes" to questions 2 and 4 of the Mitigating Systems Cornerstone column and determined that the finding required a Phase 2 analysis. The Region III senior reactor analyst completed a Phase 2 analysis and determined the risk significance of the issue to be very low (Green). The finding has a cross-cutting aspect in the area of human performance, resources, because a licensee effort to review various plant components for possible inclusion in a preventive maintenance optimization project had assigned a low priority to this relay (H.2(a)).

Inspection Report# : 2011003 *(pdf)*

Significance: G Jun 30, 2011
Identified By: NRC
Item Type: FIN Finding
Inadequate Operability Determination Of A Heat Exchanger Leak On Emergency Diesel Generator A
A finding of very low safety significance was identified by the inspectors for the failure to adequately assess operability of the service water system in operability determination 413, “EDG A Jacket Water Expansion Tank Overflow,” in accordance with site Procedure OP-AA-102-1001, “Development of Technical Basis to Support Operability Determinations.” At the end of the inspection period, the licensee was completing an apparent cause evaluation to determine the cause and develop corrective actions.

The finding was determined to be more than minor because the finding, if left uncorrected, had the potential to become a more significant safety concern. Specifically, the failure to perform operability evaluations on degraded safety-related systems could lead to situations where systems needed to mitigate design basis accidents were not capable of performing their required safety functions. The inspectors determined the finding could be evaluated using Inspection Manual Chapter 0609, “Significance Determination Process,” Attachment 0609.04, “Phase 1- Initial Screening and Characterization of Findings,” Table 4a, for the Mitigating Systems Cornerstone. The inspectors answered "No" to the Mitigating Systems questions and screened the finding as having very low safety significance (Green). The finding has a cross-cutting aspect in the area of human performance, work practices, because the licensee failed to communicate decisions and the bases for decisions to personnel who had a need to know the information in order to perform work safely. Specifically, the licensee failed to effectively communicate the expectation to assess operability of the service water system in the pre-job brief and peer review (H.1(c)).
Inspection Report# : 2011003 *(pdf)*

Significance: G Jun 30, 2011
Identified By: NRC
Item Type: FIN Finding
Failure To Review And Update Severe Accident Management Guidelines In Accordance With An Established Program
A finding of very low safety significance was identified by the inspectors for the licensee’s failure to perform reviews and update the Severe Accident Management Guidelines (SAMGs) in accordance with the licensee’s nuclear administrative directives (NADs). Specifically, Procedure NAD 14.06 required that the engineering group review industry correspondence related to SAMGs and implement appropriate changes, and that the emergency preparedness group conduct biennial reviews of the SAMGs. The inspectors identified that neither group had performed the reviews. As a result, the SAMGs were not adequately updated. The licensee entered this issue into their corrective action program as condition reports 424681, 424855, 424865, 424866, 425092, 426999, and 427092, and was still evaluating the cause for this condition at the end of this inspection period. The licensee scheduled the revision of the SAMGs for completion by December 2011.

The finding was determined to be more than minor because, if left uncorrected, the finding had the potential to lead to a more significant safety concern. Specifically, the failure to review and update the SAMGs would have hampered the licensee’s response in the unlikely event of a severe accident, because the SAMGs were not current. The inspectors, in consultation with the Region III senior reactor analyst, determined that the finding could be evaluated using the Significance Determination Process in accordance with Inspection Manual Chapter 0609, “Significance Determination Process,” Attachment 0609.04, “Phase 1 - Initial Screening and Characterization of Findings,” Table 4a, for the Mitigating Systems Cornerstone. The inspectors answered "No" to the Mitigating Systems questions and screened the finding as having very low safety significance (Green). The finding has a cross-cutting aspect in the area of problem identification and resolution, corrective action program, because the licensee failed to take appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity. Specifically, the licensee identified in an apparent cause evaluation initiated in April 2010 that the emergency preparedness organization had not performed the required reviews and updates of emergency preparedness procedures, and the SAMGs were identified in the licensee’s extent of condition. However, the inspectors identified that the corrective actions issued for this extent of condition did not address the SAMGs and, therefore, no corrective actions were taken (P.1(d)).

Inspection Report# : 2011003 *(pdf)*

Significance: G Mar 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Work Instructions Results In Potential Orange Path
A finding of very low safety-significance and associated non-cited violation (NCV) of Technical Specification 5.4.1, "Procedures," was identified by the inspectors for the failure to implement procedures for shutdown operations involving shutdown operations safety assessments. Specifically, OU KW 201, "Shutdown Safety Assessment Checklist," step 3.3.1, stated, in part, that a shutdown safety assessment was required to be completed in accordance with the procedure for core cooling; however, the inspectors noted that the February 28, 2011, 6:00 p.m. analysis credited the safety injection system feed and bleed as an available alternate decay heat removal system when the system was not available as described in Section 5.3.2, "Available/Availability," for work scheduled at that time on the emergency core cooling system (ECCS) sump. The licensee initiated condition report CR415539, and at the end of the inspection period, the licensee was performing a causal evaluation to determine the causes of the event and develop corrective actions. On February 28, as a remedial corrective action prior to the start of work, additional steps to the work instructions were added to ensure the equipment would meet the intended function, operators were designated to perform the local manual operations and a pre job brief was conducted that provided training for using the equipment in the given situation.

The finding was determined to be more than minor because the finding was associated with the Mitigating Systems Cornerstone attribute of human error (pre event) and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the availability of the ECCS sump was integral to ensuring that the plant was not in an orange risk path for the evolutions completed on February 28. The inspectors screened the finding as of very low safety-significance (Green) because the finding did not degrade the licensee's ability to establish an alternate core cooling path if decay heat removal could not be re established and, therefore, did not require a Significance Determination Process phase 2 or phase 3 analysis. The finding has a cross-cutting aspect in the areas of human performance, work control, because the licensee failed to plan the work activities by incorporating the need for planned contingencies and compensatory actions to ensure the ECCS sump was available to ensure an orange risk path for core cooling was not entered (H.3(a)).
Inspection Report# : 2011002 *(pdf)*

Significance: G Mar 31, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Unintended Voiding Of The Reactor Vessel Closure Head
A finding of very low safety-significance and associated non-cited violation (NCV) of Technical Specification 5.4.1, "Procedures," was identified by the inspectors for the failure to establish, implement, and maintain procedures for shutdown operations involving the draining of reactor coolant system (RCS) inventory. Specifically, on March 21, 2011, during a pressurizer draindown evolution, licensed operators unknowingly created a gas void in the reactor vessel closure head (RVCH) that displaced water to a level near the RVCH flange. Subsequent evaluation determined that the procedure for draining the RCS did not contain adequate guidance to ensure that an unacceptable void in the RVCH was not present prior to or formed during operations draindown activities. The licensee subsequently entered the issue into its corrective action program as CR418537 and performed a remedial corrective action of removing the gas void that accumulated in the RVCH. At the end of the inspection period, the licensee was performing an apparent cause evaluation to determine the causes of the event and develop additional corrective actions.

The finding was determined to be more than minor because the finding was associated with the Mitigating Systems Cornerstone attribute of operating procedure quality and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the formation of the gas void in the RVCH displaced RCS inventory and could have challenged the ability to remove decay heat in the event of a loss of shutdown cooling. The Region III senior reactor analyst determined that this issue is best characterized as a finding of very low safety-significance (Green). The finding has a cross-cutting aspect in the areas of human performance, work practices, because operations personnel

did not follow or implement the guidance contained in plant procedures. Specifically, procedure OP KW AOP RC 002 prescribed actions to take if a gas void formed in the RVCH that resulted in RVLIS level readings less than 88 percent, which had occurred several hours prior to the start of a pressurizer draining evolution (H.4(b)).
Inspection Report# : 2011002 *(pdf)*

Significance: G Dec 31, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Incorrect Containment Fan Coil Unit Acceptance Criteria
A finding of very low safety significance and associated non cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” was identified by the inspectors for the failure to correctly translate the applicable regulatory requirements and the design basis into procedures and instructions. Specifically, the licensee failed to adequately translate the containment fan coil unit (CFCU) service water flow acceptance criteria from the current design basis calculations into the CFCU performance monitoring procedures, which resulted in the incorrect acceptance criteria in plant test procedures. The licensee took immediate corrective actions to correct the acceptance criteria in the test procedures and to perform an operability determination on CFCU C, the only one of the four CFCUs that showed a recent decrease in flow. At the end of the inspection period, the licensee was completing an apparent cause evaluation and developing additional long term corrective actions.

The finding was determined to be more than minor in accordance with Inspection Manual Chapter (IMC) 0612, “Power Reactor Inspection Reports,” Appendix B, “Issue Screening,” dated December 24, 2009, because it was associated with the Mitigating Systems Cornerstone attribute of procedure quality and adversely affected the cornerstone objective of ensuring the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee failed to ensure that procedure PMP 18 13, "Containment Fan Coil Unit Performance Monitoring (AQ-1)," contained the correct acceptance criteria for testing the CFCUs. 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,” Tables 3b and 4a for the Mitigating Systems Cornerstone, dated January 10, 2008. The inspectors answered "no" to the Mitigating Systems questions and screened the finding as having very low significance (Green). This finding has a cross cutting aspect in the area of human performance, Resources, because the licensee did not maintain complete, accurate, and up to date procedures. Specifically, the correct acceptance criteria for testing the CFCUs from the design basis calculations were not specified in the CFCU testing procedure (H.2(c)).
Inspection Report# : 2010005 *(pdf)*

Significance: G Dec 31, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Unacceptable Preconditioning of Safety-Related Pressure Switches
A finding of very low significance and associated non cited violation (NCV) of 10 CFR 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings”, was identified by the inspectors for the failure to develop and implement an adequate surveillance test procedure to accurately assess the as found trip setpoint for the pressure switches associated with the turbine building service water isolation function and various other safety related functions. The licensee initiated condition report CR401813, performed an apparent cause evaluation, and initiated corrective actions to address the issues identified in the casual evaluation.

The finding was determined to be more than minor in accordance with Inspection Manual Chapter (IMC) 0612, “Power Reactor Inspection Reports,” Appendix B, “Issue Screening,” dated December 24, 2009, because it was associated with the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences and affected the cornerstone attribute of Equipment Performance. 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,” Tables 3b and 4a for the Mitigating Systems Cornerstone, dated January 10, 2008. The inspectors answered “no” to the Mitigating Systems questions and screened the finding as having very low significance (Green). This finding has a cross cutting aspect in the area of problem identification and resolution, Operating Experience, because the licensee did not evaluate and communicate external

operating experience to internal stakeholders in a timely manner (P.2(a)).
Inspection Report# : 2010005 *(pdf)*

Significance: G Dec 31, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Inappropriate Isolation of the Safety Injection Pump Minimum Flow Recirculation Lines
A finding of very low safety significance and associated non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” was identified by the inspectors for multiple inadequate procedures, which directed closing the common train safety injection minimum flow recirculation line valves, an activity affecting quality. Specifically, station procedures directed operators to close the safety injection pump minimum flow recirculation valves in order to complete valve timing tests, and to engage an interlock that allowed closure of the containment sump recirculation valves. However, the procedures and licensed operators failed to recognize that closure of either minimum flow recirculation valve affected the operability and availability of both safety injection pumps for certain design basis accidents because the minimum flow recirculation path was isolated. The licensee subsequently entered the issue into its corrective action program as CR393930. The licensee corrected the procedure inadequacies and completed a root cause evaluation that recommended several corrective actions to prevent recurrence.

The finding was determined to be more than minor in accordance with Inspection Manual Chapter (IMC) 0612, “Power Reactor Inspection Reports,” Appendix B, “Issue Screening,” dated December 24, 2009, because it was associated with the Mitigating System Cornerstone attribute of procedure quality, and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee failed to ensure that procedures implemented during power operations ensured the operability of both trains of safety injection. 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,” Tables 3b and 4a for the Mitigating Systems Cornerstone, dated January 10, 2008. The inspectors answered "yes" to the Mitigating Systems question that confirmed the finding represented a loss of system safety function. The Region III Senior Reactor Analyst (SRA) performed an SDP Phase 2 analysis and a Phase 3 analysis. The Phase 3 analysis determined that the resultant delta core damage frequency (CDF) was less than 1E 6 and delta large early release frequency (LERF) was less than 1E 7, which represented a Green finding. The dominant scenario involved a small break loss of coolant accident with operator failure to perform a rapid cool down. The finding has a cross cutting aspect in the area of human performance, Decision Making, because although the licensee procedures cautioned that starting a safety injection pump following the closure of a minimum flow recirculation valve would result in damage to the pump, the licensee staff failed to use conservative decision making to question the adequacy of the prescribed procedure actions (H.1(b)).

Inspection Report# : 2010005 *(pdf)*

Barrier Integrity

Significance: G Jun 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failed Standoffs Result In An Inoperable Train of Shield Building Ventilation
A finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” was identified by inspectors for the failure to have and follow adequate procedures for evaluation and installation of components in shield building ventilation (SBV) train A. Specifically, the licensee failed to have adequate procedures to direct the completion of a subcomponent classification evaluation (SCE) and prevent non safety-related parts from being installed in safety-related applications; have torque specifications for the standoffs (spacers for circuit cards) in the work instructions; and properly accomplish the SCE procedure when evaluating the standoffs. The licensee’s initial short-term corrective actions removed the installed

standoffs from both trains. The licensee also performed an extent of condition looking at previously completed item equivalency evaluations to determine if an SCE was needed or missing for newly installed components.

The finding was determined to be more than minor because the finding was associated with the Barrier Integrity Cornerstone attribute of procedure quality, 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 failed to have and follow adequate procedures which led to the failure of SBV train A. The inspectors determined that this was a type B containment finding since it was related to a degraded condition that had potential important implications for the integrity of the containment, without affecting the likelihood of core damage. The inspector evaluated the finding using the significance determination process (SDP) in accordance with Inspection Manual Chapter 0609, Appendix H, “Containment Integrity SDP,” Table 4.1, and determined that the finding did not relate to a containment structure, system, and component, nor containment status that had an impact on large early release frequency. Because of this, the issue screened as Green, using the flowchart in Figure 4.1. The finding has a cross-cutting aspect in the area of problem identification and resolution, corrective action program, because the licensee failed to thoroughly evaluate problems such that the resolutions address causes and extent of conditions, as necessary. This includes properly classifying, prioritizing, and evaluating for operability and reportability conditions adverse to quality. This also includes, for significant problems, conducting effectiveness reviews of corrective actions to ensure that the problems are resolved. Specifically, the licensee failed to properly evaluate and identify the cause of the SBV train A failure and produce a resolution that addressed the cause (P.1(c)).
Inspection Report# : 2011003 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Significance: SL-IV Jun 30, 2011
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Submit LER Per 10 CFR 50.73
A Severity Level IV non-cited violation of 10 CFR Part 50.73(a)(2)(i)(B) and 50.73(a)(2)(v)(C) was identified by the inspectors for the failure of the licensee to report an event or condition that was prohibited by Technical Specifications, and an event or condition that could have prevented the fulfillment of a safety function, that is relied upon to control the release of radioactive material. Specifically, the licensee failed to report the inoperability of shield building ventilation train A from December 3, 2010, through January 26, 2011, a condition prohibited by Technical Specification 3.6.c.1, which allowed a single train outage time of seven days. Additionally, shield building ventilation

train B was inoperable on multiple occasions during the same time period, requiring the licensee to also report an event or condition that could have prevented the fulfillment of a safety function, which is relied upon to control the release of radioactive material. At the end of the inspection period, the licensee was completing an apparent cause evaluation to determine the cause and develop corrective actions.

Because violations of 10 CFR 50.73 are considered to be violations that potentially impact the regulatory process, they are dispositioned using the traditional enforcement process instead of the Reactor Oversight Process Significance Determination Process. A cross-cutting aspect was not assigned to this violation. Per the NRC Enforcement Policy, Section 6.0, “Violation Examples,” a failure to submit a required licensee event report is categorized as a Severity Level IV violation.
Inspection Report# : 2011003 *(pdf)*

Last modified : January 04, 2012