Kewaunee
2Q/2010 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2010
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Fuel Loading Occurs With Boron Concentration Below Required Minimum
A finding of very low safety significance and associated Non-Cited Violation of Technical Specification 3.8.a.5 was self-revealed when the licensee loaded fuel into the reactor with reactor coolant system boron sample results less than the minimum boron concentration as specified in the core operating limits report. Once the licensee believed the boron concentration samples were accurate and that boron concentration was below the required minimum, operators stopped moving fuel until the boron concentration was restored to acceptable limits. The licensee entered the issue into the corrective action program as Condition Report 351923. The licensee conducted an apparent cause evaluation and proposed long-term corrective actions, including procedure enhancements, operator training on the event, and conservative decision making training.

This finding was determined to be more than minor because it was associated with the Initiating Events Cornerstone attribute of human performance and adversely affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown operations. Specifically, the licensee did not believe the initial boron sample results and continued to move fuel with actual boron concentrations below the minimum value specified in the core operating limits report. The inspectors determined that the finding could be evaluated in accordance with Inspection Manual Chapter 0609, Appendix G, “Shutdown Operations Significance Determination Process.” The inspectors used Checklist 4 contained in Attachment 1 and determined that the finding did not require a phase 2 or phase 3 analysis and screened as very low safety significance (Green). This finding has a cross-cutting aspect in the area of human performance, decision-making, because the licensee failed to use conservative assumptions when making decisions and did not demonstrate that nuclear safety was an overriding priority (H.1(b)).
Inspection Report# : 2010002 *(pdf)*

Significance: G Mar 31, 2010
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Incorrect Settings On Differential Relay Results In Loss Of Tertiary Auxiliary Transformer
A finding of very low safety significance and associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” was self-revealed for the failure to establish adequate measures to identify and control design interfaces and coordinate among participating design organizations. Specifically, the licensee failed to adequately control all required tertiary auxiliary transformer relay inputs/settings that interfaced with the existing plant design. This adversely impacted associated equipment and caused an unanticipated system response. The licensee promptly cleared tags on the reserve auxiliary transformer to restore a normal offsite power source to one of the two 4160-volt safeguards buses. The licensee performed a root cause evaluation and implemented corrective actions, some of which included: modifying the design change process to ensure that all programmable digital device setpoints and inputs were

identified; documenting the basis for each setpoint or input in the design change documentation; and providing programmable digital device training for design engineering and maintenance personnel. The licensee entered the issue into its corrective action program as CR 352878.

The finding was determined to be more than minor because the finding was associated with the Initiating Events Cornerstone attribute of design control 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 adequately control all required tertiary auxiliary transformer relay inputs/settings adversely impacted the associated equipment, which caused an unanticipated system response and challenged core shutdown cooling. The inspectors determined that the finding could be evaluated in accordance with Inspection Manual Chapter 0609, Appendix G, “Shutdown Operations Significance Determination Process.” The inspectors used Checklist 4, contained in Attachment 1, and determined that the finding required a Phase 2 analysis because it degraded the ability to recover the decay heat removal system. The Region III senior reactor analyst performed a phase 2 and subsequently a phase 3 analysis and determined the finding was of 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 design documentation (H.2(c)).
Inspection Report# : 2010002 *(pdf)*

Significance: G Dec 31, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadequate Work Instructions Lead to Component Cooling Water Relief Valve Lift And Surge Tank Level Drop
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 self-revealed for the failure to have adequate work instructions in place during the isolation of component cooling water (CCW) flow in the reactor coolant pump vaults. Specifically, the inadequate valve isolation sequence and the speed at which the outlet valves were closed caused CCW system relief valves to lift and rapidly drain the component cooling water surge tank while the CCW system was supporting the residual heat removal system for decay heat removal. In response to the issue, the licensee implemented compensatory corrective actions to modify the tagout and hang tags on the appropriate CCW isolation valves.

The inspectors determined that the finding was more than minor because it was associated with the Initiating Events Cornerstone attribute of configuration control and 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. The inspectors determined that the finding could be evaluated in accordance with Inspection Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process." The inspectors used Checklist 3 contained in Attachment 1 and determined that the finding required a Phase 2 analysis since the finding increased the likelihood that a loss of decay heat removal would occur. The Region III senior reactor analyst performed the assessment using Appendix G, Attachment 2, "Phase 2 Significance Determination Process Template for PWR [Pressurized Water Reactor] During Shutdown," and determined that this issue is best characterized as a finding of very low safety significance (Green). This finding has a cross-cutting aspect in the area of human performance, resources component, because the licensee did not maintain long-term plant safety by maintenance of design margins. Specifically, the work instruction did not adequately account for the low design margin that existed between the system operating pressure and the relief valve setpoints when both CCW pumps were running (H.2(a)).

Inspection Report# : 2009005 *(pdf)*

Significance: G Dec 31, 2009
Identified By: Self-Revealing

Item Type: NCV NonCited Violation
Procedure Inadequacy Results In The Tertiary Auxiliary Transformer Breaker Reopening After Alignment To The Bus
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 self-revealed for the licensee's failure to have adequate procedures to ensure that steps were sequenced such that unplanned transients were not initiated. Specifically, the procedure for performing emergency diesel generator train "A" automatic testing allowed steps to be sequenced in a manner such that a jumper used to simulate a station blackout signal was left installed during the restoration of offsite power. Because of the installed jumpers, a transient was initiated on the associated bus and attached equipment during the restoration from testing. In response to the issue, the licensee implemented compensatory corrective actions and corrected the procedure deficiency prior to conducting the same test on the opposite train.

The inspectors determined that the finding was more than minor because it was associated with the Initiating Events Cornerstone attribute of procedure quality and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors evaluated the significance of the issue using Inspection Manual Chapter 0609, Appendix G, Checklist 3, and determined that the power availability guidelines were met. Because the finding did not increase the likelihood of a loss of offsite power or degrade the licensee's ability to cope with a loss of offsite power, the finding screened as having very low safety significance (Green). The finding has a cross-cutting aspect in the area of human performance, work practices component, because the procedure was not adequately verified when steps were changed from being sequence-dependent to allow for completion in any order. Specifically, personnel proceeded to change procedure without implementing peer-checking during the validation process to ensure that the change was applicable to all plant conditions (H.4(a)).

Inspection Report# : 2009005 *(pdf)*

Significance: G Sep 30, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Adequately Analyze The Automatic Fast Transfer Feature That Allowed Operation With Both 4.16-kiloVolt Safety-Related Buses 1-5 And 1-6 Connected To The Reserve Auxiliary Transformer
A finding of very low safety-significance and associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," was identified by the inspectors for the failure to perform a power system analysis calculation that would have identified that the fast transfer design feature/scheme was deficient, in that, it allowed an unanalyzed electrical power system alignment where both redundant 4.16-kiloVolt safety-related buses were being supplied by an offsite source via the same transformer. Use of this electrical configuration could have resulted in an out-of-phase transfer, loss of available offsite power to the buses and potential damaging effects on redundant safety related equipment, during a design basis event such as initiation of safety injection signal. When identified, the licensee entered this issue into their corrective action program and implemented interim actions to prohibit use of the fast transfer feature or manually aligning two safety-related buses to be fed from the same transformer during plant operation.

This performance deficiency was more than minor because the failure to perform the required calculation resulted in a condition where the plant was being operated in an unanalyzed configuration where there was reasonable doubt as to the operability of redundant safeguard loads; this concern resulted in issuance of a Licensee Event Report 2007-007-00 on May 21, 2007. Consequently, the potential for damage or loss of power to safety-related loads during an event could have led to unacceptable consequences. The finding screened as being of very low safety-significance (Green) for the Initiating Events Cornerstone because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigating equipment or functions will not be available. The inspectors did not identify a cross cutting aspect associated with this finding because the cause of the performance deficiency was related to a historical design issue and not indicative of current licensee performance.

Inspection Report# : 2009004 *(pdf)*

Significance: G Sep 30, 2009

Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Design Analysis For 105-Ton Transfer Cask Lifting Beam
A finding of very low safety significance and associated Non-Cited Violation of Title 10 Code of Federal Regulations Part 50, Appendix B, Criterion III, “Design Control,” was identified by the inspectors for the licensee’s failure to provide an adequate single failure proof design basis analysis for the 105-ton transfer cask-lifting beam. The licensee entered this issue into their corrective action program as condition report CR339267. The licensee revised the design calculation for the 105-ton transfer cask-lifting beam and demonstrated compliance with single failure proof acceptance criteria.

The finding was determined to be more than minor because the finding was associated with the Initiating Events Cornerstone attribute of equipment performance and adversely affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The finding was determined to be of very low safety significance by the NRC’s significance determination process because the transfer cask-lifting beam had not been previously used at the Kewaunee Power Station. This finding has a cross-cutting aspect in the area of human performance, work practices, because the licensee did not ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety is supported, in that, the licensee failed to perform an effective owner’s review to assure that appropriate design methods are used in calculations that demonstrate nuclear safety (H.4(c)).

Inspection Report# : 2009004 *(pdf)*

Mitigating Systems

Significance: G Jun 30, 2010
Identified By: NRC
Item Type: FIN Finding
Inappropriate Use of a Probabilistic Methodology in an Operability Determination
A finding of very low safety significance was identified by the inspectors for an inadequate operability determination performed for the emergency diesel generators. Specifically, the licensee used TORMIS, a computer code and probabilistic-based methodology, for assessing tornado missile protection and confirming operability of their emergency diesel generator fuel oil day tank vents and storage tank vents. Probabilistic risk assessments were not allowed for confirming operability under both NRC guidance and the licensee’s procedures. The licensee entered this issue into their corrective action program as condition report 347741, performed a causal evaluation and took compensatory measures until modifications were complete in September 2009.
The finding was determined to be more than minor because the finding was associated with the Mitigating Systems Cornerstone attribute of protection against external events and 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 closure of the emergency diesel generator fuel oil day tank or storage tank vent path as a result of tornado-generated missile striking the vent lines would adversely affect the availability, reliability, and capability of the emergency diesel generators. The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 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 significance (Green). The inspectors did not identify a cross cutting aspect associated with this finding.

Inspection Report# : 2010003 *(pdf)*

Significance: G Mar 31, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Incorrect Curve Was Incorporated Into Calibration Surveillance Procedures
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 the inspectors for inadequate surveillance calibration procedures. Specifically, calibration surveillance procedure SP-06-034B-1, “Steam Generator Flow Mismatch and Steam Pressure Instrument Channel 1,” failed to have the correct negative ramp curve. The curve was required to ensure that the low steam line pressure safety injection lag circuitry unit did not exceed the Technical Specification setpoint value. This condition also existed in calibration procedures for channels 2, 3, and 4. The licensee subsequently entered the issue into its corrective action program as CR 367826 and CR 367932. The licensee conducted an apparent cause evaluation and corrective actions were in progress at the conclusion of the inspection period.

The finding was determined to be more than minor because it was associated with the Mitigating System Cornerstone attribute of procedure quality and adversely affected the cornerstone objective of ensuring the reliability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the licensee failed to ensure that the low steam line pressure safety injection lag circuitry units did not exceed the Technical Specification value of less than or equal to 2 seconds. The finding was of very low safety-significance (Green) based on a phase 1 screening in accordance with Inspection Manual Chapter 0609, Appendix A, ASignificance Determination of Reactor Inspection Findings for At-Power Situations." The finding has a cross-cutting aspect in the areas of human performance, work practices, because the licensee failed to ensure that the calculation upon which the surveillance procedure was based, was approved prior to issuance of the procedure (H.4(b)).
Inspection Report# : 2010002 *(pdf)*

Significance: G Feb 12, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Calculation Methodology Did Not Represent Actual Plant Equipment Configuration
A finding of very low safety-significance and associated NCV of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” was identified by the inspectors for the licensee’s failure to assure that the calculation methodology represented the actual plant equipment configuration and that adequate design reviews were performed for verifying or checking the adequacy of design. Specifically, the licensee failed to assure that the methodology used in calculation C11716, “MCC [Motor Control Center] Control Circuit Voltage Drop,” Revision 1, correctly represented the sequence of operation for the various devices contained within the plant equipment’s control circuitry, such that the minimum required MCC voltage was available for proper circuit operation. Upon discovery of this condition, the licensee performed a preliminary evaluation and entered the finding into their corrective action program (CR366627 and CR366865).

This finding was more than minor in accordance with IMC 0612, Appendix B because the finding was associated with the design control attribute of the mitigating systems cornerstone 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 inadequate MCC voltages could render the safety-related loads required to mitigate the consequences of a design basis accident inoperable and not available. In addition, as a result of the calculation errors, the inspectors were concerned that unsubstantiated MCC voltage values could be used in future calculations and modifications to plant equipment. To resolve the inspectors’ concerns, the licensee completed an interim evaluation, which evaluated the calculation’s other circuit models and associated cases. Although, by the end of the inspection, the licensee was able to demonstrate operability; at the time of discovery there was reasonable doubt on the operability of the control circuits modeled in the calculation. The finding was of very low safety-significance based on a Phase 1 screening in accordance with IMC 0609, “Significance Determination Process,” Attachment 0609.04, “Phase 1 - Initial Screening and Characterization of Findings,” Table 4a.

This finding has a cross-cutting aspect in the area of human performance, work practices because the licensee did not ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety was supported. Specifically, the licensee failed to assure that the calculation methodology represented the actual plant equipment configuration and that adequate design reviews were performed for verifying or checking the adequacy of

design. (H.4(c)) (Section 1R17.2b)
Inspection Report# : 2010007 *(pdf)*

Significance: G Dec 31, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Perform Dye Penetrant Examinations Of The Full Code Required Exam Surfaces
The inspectors identified a finding of very low safety significance and an associated Non-Cited Violation of 10 CFR 50.55a(g)(4) for the failure to perform dye penetrant examinations of the full required exam surface on safety injection (SI) gas collection chamber welds (SI-W603, SI-W604, and SI-H109) in accordance with the American Society of Mechanical Engineers Section XI Code. Specifically, the examiner proceeded with the examination without anticipating the effects of the increased dwell and drying times of the developer due to cooler ambient temperature than those he had been working under previously. The developer, which would normally dry to a white residue shortly after application to a warm surface and aid in determining the extent of application, remained somewhat translucent when applied to the cooler surface, masking the extent of coverage. This resulted in the examiner's failure to coat the full required Code areas of the welds he was examining and his failure to recognize the lack of coverage. The licensee subsequently re-performed the dye penetrant examinations and entered this issue into their corrective action program.

The inspectors determined that the finding was more than minor because it was associated with the Mitigating System Cornerstone attribute of equipment performance and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Absent NRC intervention, the licensee would not have performed the full Code required examination of welds SI-W603, SI W604, and SI-H109 for an indefinite period of service, which would have placed the reactor coolant pressure boundary at increased risk for unanalyzed cracking, leakage, or component failure. This finding was of very low safety significance because a qualified examination was subsequently performed with no relevant indications detected. In particular, it did not result in the loss of function of the mitigating system. The inspectors determined that the finding had a cross-cutting aspect in the area of human performance, work practices component, because the licensee proceeded in the face of uncertainty or unexpected circumstances (H.4(a)).
Inspection Report# : 2009005 *(pdf)*

Significance: G Dec 31, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Latching Pawl On Safety-Related Bus Tie Breakers Fails To Engage Due To Grease Hardening
The inspectors identified a finding of very low safety significance and an associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the failure to promptly identify and correct deficiencies that had caused 4160-Volt alternating current breaker failures, which, if corrected, may have prevented subsequent similar failures. Specifically, the licensee did not evaluate other safety-related breakers after hardened grease was identified in the safety-related bus 5 to bus 6 crosstie breakers. In response to this finding, the licensee entered the issue into its corrective action program as Condition Report (CR) 360677.

The inspectors determined that the finding was more than minor because it was associated with the Mitigating Systems Cornerstone attribute of procedure quality and 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). The inspectors determined 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, dated January 10, 2008. The significance of the finding was determined to be of very low safety significance because the inspectors answered "no" to all of the questions in the Mitigating Systems Cornerstone column. The inspectors determined that the issue had a cross-cutting aspect in human performance, work practices component, because licensee staff did not comply with the timeliness aspects of completing an apparent cause evaluation in accordance with procedure guidance (H.4(b)).

Inspection Report# : 2009005 *(pdf)*

Significance: G Aug 20, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Improper Application of 440Vac Rated Motors
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 failure to ensure the proper application of safety-related 440Vac motors. Specifically, eight 440Vac safety-related motors were not suitable for operation at analyzed voltages. This finding was entered into the licensee's corrective action program.

The finding was more than minor because if left uncorrected it could result in the loss of safety-related 440Vac motors by overstressing of the motor windings through exposure to higher than design rated voltages, and in the failure of motor drive components caused by increased torque produced at the higher voltages. The finding was determined to be of very low safety-significance (Green) because it did not result in a loss of operability. The cause of this finding is related to the cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because the licensee did not identify this issue completely, accurately, and in a timely manner. The values were produced in a calculation but the licensee did not identify that they exceeded the acceptance criteria. (P.1(a)) (Section 1R21.3)

Inspection Report# : 2009006 *(pdf)*

Significance: G Aug 20, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inaccurate Minimum Low Head Safety Injection Flow Specified in Emergency Operating Procedure
The inspectors identified a finding of very low safety-significance and associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to specify the appropriate quantitative acceptance criterion to assure that adequate Emergency Core Cooling System flow would be delivered to the core following switchover to containment sump recirculation. This finding was entered into the licensee's corrective action program.

The finding was determined to be more than minor because the licensee failed to include the appropriate quantitative set-point value for the minimum low-head safety injection train flow following switchover to containment sump recirculation to assure sufficient reactor coolant was available. This finding is of very low safety-significance (Green) because it did not result in a loss of operability, did not represent an actual loss of safety function, and is not potentially risk-significant due to external events. The cause of this finding is related to the cross-cutting aspect in the area of Human Performance, Work Practices, because the licensee did not ensure proper supervisory and management oversight of contractor work activities. Vendor calculations were used as the basis for an EOP set-point without taking into account specific plant design information such as instrument uncertainties, flow instrument calibration effects, and RHR minimum flow. (H.4(c)) (Section 1R21.3)
Inspection Report# : 2009006 *(pdf)*

Significance: G Aug 20, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate procedure for a Battery Room Flooding Event.
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 the failure to provide adequate procedural direction to respond to a rupture of the service water piping in the battery rooms. As part of its corrective actions, the licensee revised OP-KW-AOP-MDS-001, "Abnormal Operation of Miscellaneous Drains and Sumps," to correct the inadequate operator actions.

The finding was determined to be more than minor because the licensee failed to provide adequate procedural direction for a battery room A or B flood caused by a rupture of the SW piping to/from the battery room fan coil unit in the affected battery room, which ensured the protection of the battery in the unaffected room not associated with the

initial flooding event. This finding is of very low safety significance (Green) because it did not result in a loss of operability, did not represent an actual loss of safety function, and is not potentially risk-significant due to external events. The cause of this finding is related to the cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because the licensee did not fully evaluate the battery room flooding event (an issue potentially impacting nuclear safety) such that the resolution addressed causes, and extent of condition as necessary, to assure nuclear safety. (P.1(c)). (Section 1R21.6).
Inspection Report# : 2009006 *(pdf)*

Barrier Integrity

Significance: G Sep 30, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Containment Isolation Valve Inoperable With No Technical Specification Action requirement Entry
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 the inspectors for the licensee’s failure to have adequate procedures that ensured technical specifications were entered and followed for containment isolation valves. The licensee entered the issue into their corrective action program as Condition Report 344856 and Condition Report 350526A, and provided additional guidance to operations personnel. At the end of the inspection period, the licensee continued to perform a causal analysis.

The inspectors determined that the issue was more than minor because the finding, if left uncorrected, would become a more significant safety concern. Specifically, not entering the appropriate technical specification action requirements, when necessary, would lead to more significant safety concerns. The inspectors determined 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 Barrier Integrity Cornerstone. The inspectors answered no to the Barrier Integrity 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, resources, because the licensee did not have complete, accurate and up-to-date design documentation, procedures and work packages (H.2(c)).
Inspection Report# : 2009004 *(pdf)*

Significance: G Aug 20, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Non-Conservative Main Steam Line Break Analysis
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 failure to correctly translate the design bases for the maximum steam generator narrow range level into procedures and instructions. This finding was entered into the licensee’s corrective action program.

The finding was determined to be more than minor because an evaluation was required to ensure that accident analysis requirements for peak containment pressure were met. The finding also impacted the Barrier Integrity cornerstone attribute of procedure quality, and affected the cornerstone objective of maintaining the functionality of containment to protect the public from radionuclide releases caused by accidents or events. Procedural guidance was not adequate to maintain the plant within the parameters specified in the analysis for containment operability. The finding screened as having very low safety significance (Green) because there was no actual barrier degradation. The inspectors determined there was no cross-cutting aspect associated with this finding. (Section 1R21.4)
Inspection Report# : 2009006 *(pdf)*

Significance: SL-IV Aug 20, 2009
Identified By: NRC
Item Type: NCV NonCited Violation

Inadequate 50.59 Evaluation of Shutdown Loss of Coolant Accident Procedure.
The inspectors identified a finding of very low safety significance and associated Non-Cited Violation of 10 CFR 50.59(d)(1) for the licensee's failure to perform an adequate review of an abnormal operating procedure associated with a shutdown loss of coolant accident. As part of its corrective actions, the licensee revised procedure OP-KW-AOP-RHR-002 to remove the procedure applicability to the Cold Shutdown mode and Refueling mode with reactor vessel head on.

The inspectors determined that the finding was more than minor because it could not reasonably be determined that the activity would not ultimately have required NRC approval. Operation in accordance with the procedure may have challenged the reactor coolant system barrier. The inspectors determined that the finding did not require a quantitative assessment per IMC 0609, Appendix G. Therefore, the finding screened as having very low safety significance (Green) and was determined to be a Severity Level IV violation. The cause of this finding is related to the cross-cutting aspect in the area of Human Performance, Decision Making, because the licensee failed to use conservative assumptions in decision making to demonstrate that the proposed action to include additional modes of applicability for the Shutdown LOCA procedure was safe in order to proceed. (H.1(b)) (Section 1R21.6)
Inspection Report# : 2009006 *(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 Sep 30, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure To Follow Independent Spent Fuel Storage Installation Loading Procedure Step
The inspectors identified a Severity Level IV Non-Cited Violation of 10 CFR 72.150, "Instructions, Procedures, and Drawings," during the Independent Spent Fuel Storage Installation loading campaign. The licensee failed to follow procedure OP KW NOP ISF 001, "Dry Shielded Canister Loading." The inspectors determined that the licensee's failure to follow step 5.2.6 of Procedure OP-KW-NOP-ISF-001 to perform a crane brake check was contrary to 10 CFR 72.150. The licensee immediately evaluated the situation and discussed the need to check the crane brakes when lifting loads approaching the rated loads with the refueling crew to prevent missing this step in the future.

The inspectors determined that the violation had more than minor safety significance because the failure to check the crane brakes, results in not knowing if the brakes are functioning properly, which may lead to a failure of the brakes while lifting a loaded spent fuel canister. The issue was addressed by traditional enforcement since 10 CFR Part 72 is

not risk based and is not covered under the reactor oversight process. Because this violation was of very low safety significance, was non-repetitive and non-willful, and was entered into the corrective action program, this violation is being treated as a Non-Cited Violation of 10 CFR 72.150 consistent with Section VI.A.1 of the Enforcement Policy. The inspectors determined that there was no cross-cutting aspect associated with this finding.

Inspection Report# : 2009004 *(pdf)*

Last modified : September 02, 2010