

Kewaunee

1Q/2007 Plant Inspection Findings

Initiating Events

Significance:  Mar 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Adequately Implement E-0-05, "Response to Natural Events," During a High Wind Advisory

The inspectors identified a finding of very low safety significance (Green) and an associated Non-Cited Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to adequately implement procedure E-O-05, "Response to Natural Events," during a high wind advisory. Specifically, on February 22, 2007, during the advisory, the inspectors identified several items stored outdoors near the plant main output transformer that could become missile hazards during actual high winds. As part of corrective actions, the licensee removed the items. The issue was entered into the licensee's corrective action program.

The inspectors determined that the finding is greater than minor because, if left uncorrected, the loose items could become a more significant safety concern by allowing the accumulation of missile hazards in these areas, thereby increasing the likelihood of an initiating event. The inspectors determined that the finding warranted evaluation using the Significance Determination Process (SDP) because the finding was associated with an increase in the likelihood of an initiating event. The finding was determined to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of human performance because the licensee failed to communicate decisions and the basis for decisions to personnel who have a need to know the information in order to perform work safely and in a timely manner.

Inspection Report# : [2007002](#) (*pdf*)

Significance:  Dec 31, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Pre-Fire Strategy Identified in Cable Spreading Room

A finding of very low safety significance and an associated non-cited violation of Technical Specification 6.8, "Procedures," was identified by the inspectors for the failure to identify radiological and toxic hazards in the cable spreading area fire zone pre-fire strategy. These hazards were from a radioactively contaminated lead pipe in the fire zone that could melt during certain fire scenarios. As part of corrective actions, the licensee appropriately revised the strategy. The issue was entered into the licensee's corrective action program.

The finding is greater than minor because it was associated with the external factors - fire attribute of the Initiating Events cornerstone 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. Specifically, the failure to provide adequate warnings and guidance in the pre-fire plan related to these hazards could have adversely impacted the fire brigade's ability to properly respond to a fire. This impact could increase the likelihood of damage to equipment, causing an upset of plant stability. NRC management review determined the finding to be of very low safety significance (Green), due to the extensive training provided to fire brigade members to deal with unexpected contingencies. This finding has a cross-cutting aspect in the area of human performance because the licensee failed to provide complete, accurate, and up-to-date pre-fire strategies for the fire brigade to respond to a fire.

Inspection Report# : [2006005](#) (*pdf*)

Significance:  Jun 23, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Procedure for Reactor Startup Not Followed

The inspectors identified a finding associated with a non-cited violation of Technical Specification 6.8.a (written procedures and administrative policies). The finding was for the licensee's failure to follow approved procedures during a

plant startup. The finding was of very low safety significance and there were three examples of the finding. The first example of a failure to follow approved procedures occurred when operators incorrectly marked a procedure step as not applicable and failed to execute the step. The second example of the failure to follow approved procedures occurred when operators executed procedure steps out of sequence. The third example occurred during the previous reactor startup conducted in November 2005 when operators performed procedure steps out of sequence in the same manner as executed during this plant startup. Corrective actions included placing Procedure N-0-01 on administrative hold until appropriate procedure changes could be made and training operating crews on procedure adherence.

This finding was of more than minor safety significance. Failure to comply with reactivity management requirements can lead to an uncontrolled reactivity event. In this particular event, the failure to follow the procedural sequence could have resulted in shutdown margin being less than that required by Technical Specifications. However, this finding is of very low significance because the actual shutdown margin did not go below the minimum required by Technical Specifications. This finding affected the cross-cutting issue of human performance.

Inspection Report# : [2006011](#) (*pdf*)

Significance:  Jun 23, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Procedure for Reactor Startup

The inspectors identified a finding associated with an non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," of very low safety significance associated with an event. The inspectors identified that Procedure N-0-01, "Plant Startup from Cold Shutdown Condition to Hot Shutdown Condition," Revision BI, Step 4.45 was inadequate to start up the reactor for the conditions that existed on May 17, 2006. The procedure, as written, would have required the operators to dilute the reactor to a lower boron concentration than the Estimated Critical Position boron concentration prior to withdrawing the Shutdown Bank rods. Corrective actions to address this finding included placing Procedure N-0-01 on administrative hold until appropriate procedure changes could be implemented.

This finding was more than minor in safety significance because this issue, if left uncorrected, would have resulted in the core reactivity shutdown margin being less than that required by Technical Specifications. However, this finding is of very low significance because the procedure step was not executed and shutdown was never below that required by Technical Specifications. This finding affected the cross-cutting issue of human performance.

Inspection Report# : [2006011](#) (*pdf*)

Significance:  May 19, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Criterion XVI: Failed to Identify Causes and Corrective Actions to Preclude Repetition for Significant Conditions Adverse to Quality

The NRC inspectors identified a finding of very low safety significance that involved a violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Actions." Specifically, for the turbine building flooding and auxiliary feedwater air entrainment performance deficiencies, which were significant conditions adverse to quality, the licensee failed to identify the causes, and to determine corrective actions to preclude repetition.

The finding was greater than minor because the failure to identify the cause and corrective actions to preclude repetition of significant conditions adverse to quality, which led to a degraded cornerstone could result in the NRC needing to take more significant action. The finding was determined to be of very low safety significance based on management review, and the determination that no additional instances of significant conditions adverse to quality have actually occurred due to the failure to identify the causes and corrective actions for the previous performance deficiencies. The cause of the finding was related to the evaluation aspect of the cross-cutting element of problem identification and resolution.

Inspection Report# : [2006007](#) (*pdf*)

Significance:  May 05, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Incorporate Operating Experience Into Preventive Maintenance Procedures

The inspectors identified a finding associated with a non-cited violation (NCV) of 10 CFR 50.65 (the Maintenance Rule), having very low safety significance for the licensee's failure to incorporate into station procedures available internal and external operating experience pertaining to 4.16-kilovolt (kV) switchgear mechanically operated contact (MOC) switch linkage assemblies. As a result, preventive maintenance procedures for 4.16-kV safety- and nonsafety-related switchgear breaker cubicles were inadequate and had not been upgraded to incorporate important MOC switch linkage measurements and adjustments to be used during periodic breaker/cubicle maintenance. The licensee entered the problem with the procedures into its corrective action program for resolution. Corrective action included the revision of the procedures to incorporate the need to inspect the linkage and adjust it to within specified values.

The finding is greater than minor because it is associated with the procedure adequacy attribute of the Initiating Events cornerstone 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 operation. The finding was determined to be of very low safety significance because the transient initiator contributor is a reactor trip that did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available. The cause of the finding is related to the cross-cutting element of problem identification and resolution.

Inspection Report# : [2006010](#) (*pdf*)

Mitigating Systems

Significance:  Mar 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Inappropriate QA Class Components Installed in TSC Diesel Generator

The inspectors identified a finding of very low safety significance (Green) and an associated Non-Cited Violation of Technical Specification 6.8, "Procedures," during a review on January 27, 2007, of maintenance performed on the station blackout diesel generator. The maintenance, which was conducted to repair a cooling water leak, inappropriately replaced existing parts with commercial grade components. The inspectors determined that, in accordance with procedure GNP-01.01.01, "Determination of Nuclear Safety Designed Classifications, QA [Quality Assurance] Type and EQ [Environmental Qualification] Type," the new components should have been designated as "augmented quality." As part of corrective actions, the licensee revised its parts database to show the appropriate classification for parts for the diesel. The issue was entered into the corrective action program.

The inspectors determined that the finding is greater than minor because it was associated with the design control attribute of the Mitigating Systems cornerstone 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). Specifically, the installation of parts in equipment with a lower quality designation than required potentially impacted equipment reliability. The finding was determined to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of problem identification and resolution because the licensee failed to take timely effective corrective actions for a similar prior occurrence. Barriers to prevent recurrence had not been established during supervisory reviews that granted multiple extensions to the corrective actions for the prior occurrence.

Inspection Report# : [2007002](#) (*pdf*)

Significance:  Mar 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Nuclear Instrument Test Performed Contrary to Procedural Requirements

The inspectors identified a finding of very low safety significance (Green) and an associated Non-Cited Violation of Technical Specification 6.8, "Procedures," when the licensee failed, on January 8, 2007, to follow procedures for performing the monthly surveillance test on power range instrument N-42 and failed to obtain an approved procedure change as required by administrative procedures when the technicians established an alternate ground point contrary to procedural requirements. As part of corrective actions, the licensee counseled the technicians involved and discussed the event with all members of the instrument and control department. The issue was entered into the corrective action program.

The inspectors determined that the finding is greater than minor because it was associated with the procedure quality attribute of the Mitigating Systems cornerstone 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). Specifically, the procedure required the use of the ground associated with the related card to verify proper continuity within the circuit and the use of an alternate ground point was a substantive change to the procedure. The finding was determined to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of human performance because personnel did not follow procedures.

Inspection Report# : [2007002](#) (pdf)

Significance:  Mar 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Seismic Storage requirements in Station Housekeeping Procedure

The inspectors identified a finding of very low safety significance (Green) and an associated Non-Cited Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," during a review of procedures related to the control and storage of material. On March 21, 2007, the inspectors identified a number of unsecured equipment carts located in the vicinity of the seismically-classified, safety-related auxiliary building special ventilation system. The inspectors concluded that, although this was allowed by plant procedure GNP-01.31.01, "Plant Cleanliness and Storage," it was a condition that potentially affected quality (safe operation of the ventilation system during a seismic event) and should not have been allowed by the procedure. As part of corrective action, the licensee properly secured the carts and evaluated other carts positioned near safety-related equipment. The issue was entered into the corrective action program.

The inspectors determined that the finding is greater than minor because it was associated with the procedure quality attribute of the Mitigating Systems cornerstone 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). Specifically, the procedure allowed uncontrolled storage of materials in the vicinity of the auxiliary building special ventilation system that could render the system inoperable during a seismic event. The finding was determined to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of human performance because the licensee failed to provide accurate procedures to assure the operability of safety-related equipment was maintained.

Inspection Report# : [2007002](#) (pdf)

Significance:  Mar 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Evaluate the Potentially Inadequate Design of the Service Water System

The inspectors identified a finding of very low safety significance (Green) and associated Non-Cited Violation of 10 CFR 50, Appendix B, Criterion V, "Instruction, Procedures, and Drawings," when the licensee failed to have in place adequate procedures to preclude a common mode failure of both trains of the safety-related service water (SW) system. Specifically, adequate procedures were not established for the maintenance of the SW system to prevent corrosion and degradation of the plant equipment water (PEW) filter vessels from affecting the safety-related SW bearing water supply components. As part of corrective actions, the licensee wrote the appropriate maintenance procedures. The issue was entered into the corrective action program.

The inspectors concluded that this finding is greater than minor because it was associated with the procedure quality and equipment performance attributes of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the lack of appropriate procedures allowed the degradation of PEW components to cause the inoperability of two safety-related SW pumps. The finding was determined to be of very low safety significance. This finding has a cross-cutting aspect in the area of problem identification and resolution because the licensee failed to thoroughly evaluate problems such that the resolutions addressed causes and extent of condition, as necessary.

Inspection Report# : [2007002](#) (pdf)

Significance:  Mar 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Foreign Material in Containment as a Result of Inadequate Containment Closure Inspections

The inspectors identified a finding of very low safety significance (Green) and an associated Non-Cited Violation of Technical Specification 6.8, "Procedures," on February 28, 2007, when the licensee failed to adequately perform a containment closeout inspection to ensure that debris and foreign materials were identified and removed in accordance with plant procedures. Specifically, inspectors identified unsecured metal sheets inside containment during a walkdown. As part of corrective actions, the sheets were removed from containment. The issue was entered into the corrective action program.

This finding is greater than minor because it was associated with the equipment performance attribute of the Mitigating Systems cornerstone and 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 to identify and remove the steel sheets from containment could have affected the availability of both trains of the residual heat removal system (the accident recirculation sump) during a loss-of-coolant accident because of increased debris generation caused by the unsecured sheets. The finding was determined to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of human performance because personnel did not follow procedures, causing a condition to exist that potentially impacted the operability of both trains of the residual heat removal system.

Inspection Report# : [2007002](#) (pdf)

Significance: SL-IV Mar 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Notify NRC of Licensee medical Condition Change in Accordance with 10 CFR50.74

The inspectors identified a finding of very low safety significance and an associated Severity Level IV, Non-Cited Violation of 10 CFR 50.74 for the licensee's failure to notify the NRC that one of its licensed operators was taking prescribed medication for a potentially disqualifying medical condition (hypertension). After a review of the licensed operator's medical status was completed by the NRC's medical review officer, a condition was added to the operator's license requiring him to take the medication as prescribed. The facility licensee entered this issue in their corrective action program. They required the individual licensed operator to take the medication as prescribed and incorporated these lessons learned in their requalification training program to ensure all licensed operators are aware of the requirement to notify the NRC of changes in their medical status.

Because violations of 10 CFR 50.74 affect the NRC's ability to perform its regulatory function, this finding was evaluated using the traditional enforcement process. In accordance with the NRC Enforcement Policy, this finding was determined to be greater than minor because the medical condition that was not reported required a change to the operator's NRC license. Because the operator was always in the presence of other licensed operators while performing licensed duties and made no operational errors while he was taking the prescribed medication before his license had been appropriately revised, NRC management has determined this issue is a Green finding, of very low safety significance. This issue is considered an NCV because it was entered into the licensee's corrective action program. This finding also has a cross-cutting aspect in the area of human performance because a standard, specifically American National Standards Institute/American Nuclear Society (ANSI/ANS) 3.4, "Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants," was available but not correctly implemented. The correct implementation of the standard would have led to a proper notification of the NRC and timely conditioning of the operator's NRC license.

Inspection Report# : [2007002](#) (pdf)

Significance:  Jan 31, 2007

Identified By: NRC

Item Type: VIO Violation

Failure to Evaluate Operability of the "A" EDG when a Fuel Oil Leak was Identified

A finding that was preliminarily determined to be of substantial safety significance (Yellow), and an associated apparent violation of Technical Specification 6.8, "Procedures," was identified for a fuel oil leak on the "A" emergency diesel generator (EDG) that was identified on June 28, 2006, but was not repaired until 51 days later on August 17. In December 2006, the licensee tested the fitting and copper tubing that was the source of the leak to assess the leak's effect on the operability of the diesel. The licensee concluded that the leak rendered the diesel inoperable for those 51 days. As part of corrective action, the licensee replaced the leaking fuel oil line and reinforced with plant personnel the procedural requirements to properly evaluate equipment problems. The licensee also entered the issue into its corrective action program.

The finding was more than minor because if left uncorrected it would become a more significant safety concern during use of the “A” EDG to mitigate a loss of offsite power event. Specifically, the “A” EDG would have failed after approximately four hours due to the loss of fuel oil through the failed fuel line tubing, and the systems that respond to accidents and are powered by the “A” EDG would not be available. A Significance Determination Process Phase 3 risk analysis preliminarily determined that this finding was of substantial safety significance (Yellow). This finding has a cross-cutting aspect in the area of human performance because procedures were available, but not followed, that could have resulted in the leak being promptly repaired.

After considering the information developed during the inspection, the NRC has concluded that the inspection finding is appropriately characterized as Yellow, i.e., an issue with substantial safety significance that will result in additional NRC inspection and potentially other NRC action.

Inspection Report# : [2007007](#) (*pdf*)

Inspection Report# : [2007009](#) (*pdf*)

Significance:  Dec 14, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Identify Emergency Diesel Generator Air Intake Temperature Limitations Impact Upon Ability to Meet Technical Specification Surveillance Requirements

A finding of very low safety significance was identified by the inspectors for a violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action.” The licensee failed to identify the impact of air intake temperature limitation on the ability of the emergency diesel generators to meet Technical Specification surveillance loading requirements at elevated temperatures. Once identified, the licensee established 75 degrees Fahrenheit as a maximum outside temperature for emergency diesel generator operability. The primary cause of this violation was related to the cross-cutting area of Problem Identification and Resolution, because the licensee failed to ensure that an issue potentially impacting nuclear safety was promptly identified, fully evaluated, and that actions were taken to address safety issues in a timely manner, commensurate with their significance.

The issue was more than minor because the failure to identify that the emergency diesel generators would not be able to meet Technical Specification surveillance requirements at elevated temperatures could have resulted in the emergency diesel generators being considered operable when, in fact, they had less operational margin than required by Technical Specifications. The issue was of very low safety significance because both of the emergency diesel generators were determined to be capable of carrying their respective design basis accident loads below the outside temperature limitations that the licensee had in place. The issue was a NCV of 10 CFR Part 50, Appendix B, Criterion XVI, which required that conditions adverse to quality are promptly identified and corrected.

Inspection Report# : [2006016](#) (*pdf*)

Significance:  Dec 14, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Provide Suppression for Safe Shutdown Equipment in Appendix R, III.G.3 Area

A finding of very low safety significance was identified by the inspectors for a violation of 10 CFR Part 50, Appendix R, “Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979.” The licensee failed to provide required fire suppression coverage in fire zone AX-32 for the safe shutdown functions of source range monitoring, isolation of a steam generator blowdown line, and pressurizer level instrumentation. Once identified, the licensee entered the issue into their corrective action program and implemented compensatory measures.

This issue was more than minor because the failure to provide suppression for redundant trains of safe shutdown equipment increased the likelihood that alternative shutdown methods would have to be used in the event of a fire. The issue was of very low safety significance because of the mitigating systems, which would have remained available in the event of a fire. The issue was a NCV of 10 CFR Part 50, Appendix R, Section III.G.3, which required fixed suppression systems for alternative shutdown areas such as fire zone AX-32.

Inspection Report# : [2006016](#) (*pdf*)

G**Significance:** Oct 23, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Scaffolding in Contact with the Safety Injection System Affects Operability

A finding of very low safety significance and an associated non-cited violation of Technical Specification 6.8, "Procedures," was identified by the inspectors on October 23, 2006, for the failure to install scaffolding in accordance with station procedures. Specifically, scaffolding was installed inside containment that was too close to, or was in contact with, safety injection system components and piping. As part of corrective actions, the licensee removed the scaffolding and enhance the station procedure for scaffolding. The issue was entered into the licensee's corrective action program.

This finding is greater than minor because it was associated with the equipment performance attribute of the Mitigating Systems cornerstone 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). Specifically, improperly positioned scaffolding could have impeded or prevented proper operation of the safety injection system during an accident. The finding was of very low safety significance (Green) because it did not require a quantitative assessment. This finding has a cross-cutting aspect in the area of human performances because personnel did not follow the procedure for scaffolding.

Inspection Report# : [2006005](#) (*pdf*)**G****Significance:** Oct 11, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Inadvertent Drain Down of the Reactor Coolant system During Fill and Vent of the Containment Spray System

A finding of very low safety significance and an associated non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed during performance of a plant safety-related procedure to fill and vent the containment spray system, on October 11, 2006, when water was inappropriately diverted from the reactor coolant system to the residual heat removal system. As part of corrective actions, the licensee revised the procedure to ensure the systems were properly aligned during fill and vent activities. The issue was entered into the licensee's corrective action program.

This finding is greater than minor because if left uncorrected it would become a more significant safety concern in that the use of other inadequate procedures could have rendered inoperable important mitigating equipment, such as the containment spray and residual heat removal systems. Additionally, the finding was associated with the procedure quality and configuration control attributes of the Mitigating Systems cornerstone 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 finding was determined to be of very low safety significance (Green) because it did not require a quantitative assessment. This finding has a cross-cutting aspect in the area of human performances because the licensee failed to provide complete, accurate, and up-to-date procedures to fill and vent the containment spray system.

Inspection Report# : [2006005](#) (*pdf*)**G****Significance:** Sep 30, 2006

Identified By: NRC

Item Type: FIN Finding

Technical Specification LCO Not Entered for Diesel Generators Inoperable While in Refueling Shutdown

A finding of very low safety significance (Green) was identified by the inspectors when the licensee failed to properly apply shutdown Technical Specifications (TSs) for the residual heat removal (RHR) system with both emergency diesel generators (EDGs) declared inoperable. While reviewing startup preparations being made for a mode change, the inspectors identified that TSs required both RHR systems to be operable and that both EDGs were inoperable due to tornado failure susceptibilities, thereby rendering both trains of RHR inoperable as required by the related power requirements TS. The licensee concurred with the inspectors observations, prevented the mode change, and issued the related licensee event report. Corrective actions, to date, included restoration of EDG operability prior to making a mode change and procedural enhancements.

The inspectors determined that the finding is greater than minor because if left uncorrected it would become a more significant safety issue: the licensee would have made a mode change without the required operable equipment. This

finding was of very low safety significance because the licensee returned the EDGs to operability prior to making any mode changes, no violation of NRC requirements was identified, and the finding did not require a quantitative assessment using Check List 4 for “PWR Shutdown Operation with Time to Boil >2 hours and Inventory in the Pressurizer.” The cause of this finding was related to the crosscutting area of human performance because procedures, specifically TSs, were available but not followed, that would have facilitated the proper performance of the task.

Inspection Report# : [2006004](#) (*pdf*)

Significance:  Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Reactor Protection System Surveillance Procedure Revised Without Proper Review

The inspectors identified a finding of very low safety significance and an associated non-cited violation of Technical Specification 6.8, “Procedures,” during a review of a procedure. The licensee had changed the procedure to allow the turbine-driven auxiliary feedwater (TDAFW) pump to be considered available for risk management purposes while the pump control switch was in pull-to-lock during the performance of the surveillance procedure; however, the required Plant Operating Review Committee review and approval for the change was not obtained. Corrective actions, to date, included review of the surveillance procedure by the Plant Operating Review Committee and inclusion into the procedure of additional provisions to ensure availability of the TDAFW pump while the control switch is in pull-to-lock during performance of the procedure. The cause of this finding is related to the cross-cutting area of human performance because of the licensee’s failure to follow a plant procedure regarding the review and approval of safety-related procedures.

The finding is greater than minor because if left uncorrected the finding would become a more significant safety concern. Specifically, improper application of the temporary procedure change process could lead to a more significant unreviewed, improper procedure change. Additionally, this issue is associated with the procedure quality attribute of the Mitigating Systems cornerstone 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). Specifically, the failure to provide adequate review and approval of a safety-related surveillance procedure prior to issuance for use and the failure to include adequate provisions to ensure availability of a safety-related component in the surveillance procedure potentially impacted equipment availability. The finding is of very low safety significance because the answer to all the screening questions in the significance determination process Phase 1 screening worksheet in the Mitigating Systems column was “no”.

Inspection Report# : [2006003](#) (*pdf*)

Significance:  Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Leak Developed in Service Water Pipe after Wall Thinning Evaluation was Cancelled

A self-revealed finding of very low safety significance and an associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” were identified on April 25, 2006, when a leak due to pipe-wall thinning was identified in a 90° elbow in a service water (SW) line to the ‘B’ emergency diesel generator. This wall-thinning and leak, a condition adverse to quality, resulted in the need to declare the emergency diesel generator inoperable and a shut down of the reactor to allow repair of the leak. In April 2004, a work order to inspect the elbow for wall-thinning was cancelled after wall thickness in a nearby elbow was evaluated by the licensee and deemed acceptable. The extrapolation of inspection results from one elbow to the other elbow was inappropriate. Corrective actions taken by the licensee included replacement of the failed section of SW piping, performance of additional inspections on SW piping, and replacement of other safety-related sections of SW piping. The cause of this finding is related to the cross-cutting area of problem identification and resolution because the licensee failed to promptly identify an issue potentially impacting safety-related piping.

The finding is greater than minor because it is associated with the equipment performance attribute of the Mitigating System cornerstone 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). Specifically, the failure to conduct a wall-thinning evaluation in April 2004 resulted in the need to take the emergency diesel generator out-of-service and shut down the reactor to allow repair of the pipe. Additionally, the failure to inspect and correct, as necessary, wall-thinning in a safety-related system, if left uncorrected, would become a more significant safety concern through the possible development of a large system leak or the complication of the operations of a safety-related system. The finding is of very low safety significance because the answer to all the screening questions in the significance determination process Phase 1

screening worksheet in the Mitigating Systems column was “no”.

Inspection Report# : [2006003](#) (*pdf*)

Significance:  May 19, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Criterion V: Failed to Incorporate Appropriate Acceptance Criteria for Assessing Operability of the AFW Pump

The NRC inspectors identified a finding of very low safety significance that involved a violation of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings.” Specifically, the licensee failed to incorporate appropriate acceptance criteria for assessing operability of the auxiliary feedwater pump following identification of a piping obstruction.

The finding was greater than minor because the finding was associated with the Mitigating Systems cornerstone attribute of procedure quality which affected the cornerstone objective. Specifically, the relevant procedure was not adequate to ensure the availability, reliability, and capability of the auxiliary feedwater system to respond to initiating events. The finding was determined to be of very low safety significance because subsequent evaluation of the pipe occlusions, using appropriate acceptance criteria, supported past operability of the pump. The cause of the finding was related to the evaluation aspect of the cross-cutting element of problem identification and resolution.

Inspection Report# : [2006007](#) (*pdf*)

Significance:  May 19, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Criterion III: Failed to Correctly Translate Containment Sump Volume into Design

The NRC inspectors identified a finding of very low safety significance that involved a violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control.” Specifically, the licensee failed to ensure that design basis calculations correctly translated the containment sump volume at the time of the switch over from the refueling water storage tank to the containment sump to ensure adequate available net positive suction head and vortex suppression for the residual heat removal pumps.

The finding was greater than minor because the finding was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective because the inadequate calculation impacted the design requirements for the new containment strainers being installed to resolve Generic Safety Issue 191. The finding was determined to be of very low safety significance because (1) the licensee normally kept the refueling water storage tank at a level above the Technical Specification minimum; (2) new strainers were not yet installed; and (3) inspector-independent calculations indicated that the pumps had adequate net positive suction head and vortex suppression, with the additional non-conservatisms incorporated. The cause of the finding was related to the corrective action aspect of the cross-cutting element of problem identification and resolution.

Inspection Report# : [2006007](#) (*pdf*)

Significance:  May 19, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Criterion III: Failed to Verify or Check the Adequacy of the Design Canceling Design Change Request 2548

The NRC inspectors identified a finding of very low safety significance that involved a violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control.” Specifically, the licensee failed to properly evaluate the minimum flow requirements of the high head safety injection pumps.

The finding was greater than minor because the finding was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective as providing inadequate minimum flow to the SI pumps could result in the pumps failing under certain accident scenarios. The finding was determined to be of very low safety significance because both the licensee and the inspectors determined that the safety injection pumps remained operable with the 47 gpm minimum flow rate. The cause of the finding was related to the corrective action of the cross-cutting element of problem identification and resolution.

Inspection Report# : [2006007](#) (*pdf*)

G**Significance:** May 05, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Maintain Separation of Cables

The inspectors identified a finding associated with a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," that pertained to a modification that failed to incorporate applicable design requirements for cable separation. Nonsafety-related cables associated with train 'B' reactor coolant pump (RCP) safety-related cable trays and cables were bundled inside the RCP breaker cubicles with train 'A' RCP safety-related cables feeding the reactor protection system (RPS). Consequently, a fault in the train 'B' cable/cable tray could propagate to train 'A'. The licensee entered the problem into its corrective action program for resolution. Corrective actions included encasing the nonsafety-related cables in flexible metal conduit and confirming that other safety-related cables were not affected.

The finding is greater than minor because it was associated with the design control attribute of the Mitigating Systems cornerstone 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 finding was determined to be of very low safety significance because of the redundancy and coincident logic in the RPS design; and it did not represent a loss of system safety function, an actual loss of safety function of a single train, an actual loss of safety function of one or more non-technical specification trains of equipment, designated as risk significant per 10 CFR 50.65, for greater than 24 hours, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event.
Inspection Report# : [2006010](#) (*pdf*)

Barrier Integrity

Significance: SL-IV Dec 14, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Fully Update Updated Safety Analysis Report

A finding of very low safety significance was identified for the licensee's failure to adequately update the Update Safety Analysis Report (USAR) in accordance to 10 CFR 50.71, "Maintenance of Records, Making of Reports." The licensee failed to update the USAR to fully reflect changes and analyses made in response to NRC Generic Letter (GL) 96-06, "Assurance of Equipment Operability and Containment Integrity During Design-Basis Accident Conditions." Once identified, the licensee entered this issue into their corrective action program. The primary cause of this violation was related to the cross-cutting area of Human Performance because the licensee failed to ensure that personnel, equipment, procedures, and other resources were available and adequate to assure nuclear safety. Specifically, the licensee failed to provide adequate engineering procedural guidance concerning the required content of USAR updates.

Because this issue potentially impacted the NRC's ability to perform its regulatory function, this finding was evaluated using the traditional enforcement process. The finding was determined to be more than minor because of the failure to provide complete licensing and design basis information in the USAR could result in either the licensee making an inappropriate licensing interpretation or the NRC making an inappropriate regulatory decision based on incomplete information in the USAR. The issue was of very low safety significance because no instances were identified where the failure to appropriately update the USAR impeded or influenced a regulatory decision, or resulted in an actual loss of safety function. The issue was a NCV of 10 CFR 50.71(e) which required that the USAR be updated to include the effects of all analyses of new safety issues performed by or on behalf of the licensee at Commission request.

Inspection Report# : [2006016](#) (*pdf*)**G****Significance:** May 19, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Criterion III: Failed to Properly Translate the ICS Design Basis into the Technical Specifications

The NRC inspectors identified a finding of very low safety significance that involved a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control." Specifically, the licensee failed to ensure that design basis calculations correctly translated the internal containment spray flow requirements into the Technical Specification allowed number of

blocked internal containment spray nozzles.

The finding was greater than minor because the containment spray system could have been inoperable with the allowable pump degradation and allowable number of blocked containment spray nozzles. The finding was determined to be of very low safety significance because the internal containment spray system was determined to be operable. The cause of the finding was related to the evaluation aspect of the cross-cutting element of problem identification and resolution.

Inspection Report# : [2006007](#) (*pdf*)

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Significance:  Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Properly Calibrate the Waste Discharge Liquid and the Steam Generator Blowdown Radiation Monitors

The inspectors identified a finding of very low safety significance and an associated violation of NRC requirements for the failure to comply with technical specification and Offsite Dose Calculation Manual (ODCM) requirements in the calibration of two liquid discharge radiation monitors listed in the ODCM. Specifically, the radiation monitor high alarm trip functions were not verified with radiation sources during instrument calibration.

The finding is greater than minor because it is associated with the plant facilities/equipment and instrumentation attribute of the Public Radiation Safety cornerstone and affected the cornerstone objective of ensuring adequate protection of public health and safety from exposure to radioactive materials released into the public domain. Specifically, not verifying the proper operation of a radiation monitor at its high alarm trip setpoint could result in the use of a monitor that does not properly operate at the high alarm setpoint and the consequent unintended release of radioactive material to the environment in excess of regulatory limits. The finding is of very low safety significance because actual effluent discharges were adequately analyzed for radioactive content by the licensee prior to release, and the licensee's ability to assess dose from radioactive waste (radwaste) liquid discharges was not impaired, nor were regulatory dose limits or As-Low-As-Is-Reasonably-Achievable dose constraints exceeded due to liquid effluent discharges.

Inspection Report# : [2006003](#) (*pdf*)

Physical Protection

[Physical Protection](#) information not publicly available.

Miscellaneous

Last modified : June 01, 2007