Kewaunee
3Q/2006 Plant Inspection Findings

Initiating Events

Significance: G 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: G 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: G 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: G 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)*

Significance: G Mar 31, 2006
Identified By: NRC
Item Type: FIN Finding
Failure to Control Loose Materials Within the Protected Area in Response to Adverse Weather Conditions
A finding of very low safety significance was identified by the inspectors for the licensee’s failure to control loose materials within the protected area south of the transformer bays in response to adverse weather conditions. The material could have been blown into the transformers and initiate a transient. The primary cause of this finding was related to the cross-cutting area of problem identification and resolution for the failure to implement effective corrective actions in response to a similar, previous inspection finding (Inspection Report 05000305/2005008). No violation of regulatory requirements occurred.

The licensee entered this issue into its corrective action program and removed the loose material from the transformer bays.

The finding is more than minor because, if left uncorrected, the loose items would become a more significant safety concern by becoming missile hazards; thereby, increasing the likelihood of an initiating event. Additionally, the inspectors determined that this issue was associated with the procedure quality 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 because the station procedure used to control potential airborne material was too narrow in scope. The finding was of very low safety significance because the inspectors answered “no” to all the screening questions in the Significance Determination Process Phase 1 Screening Worksheet under the Initiating Events column.

Inspection Report# : 2006002*(pdf)*

Significance: G Mar 30, 2006
Identified By: NRC
Item Type: FIN Finding
Failure to Adequately Evaluate an Inoperative Indicating Lamp for a Turbine control Valve
A finding of very low safety significance was identified by the inspectors for the failure to adequately evaluate an inoperative indicating lamp associated with the turbine control valves. The primary cause of this finding was attributed to the cross-cutting area of human performance because procedures were available, but not followed, that would have facilitated proper performance of the task.

The licensee entered this item into its corrective action program and reviewed open work orders, provided a status update to management, and increased communications of related expectations.

The finding is greater than minor because the failure to adequately evaluate deficient conditions, if left uncorrected, would become a more significant safety concern. The finding was of very low safety significance because the inspectors answered “no” to all the questions in the Significance Determination Process Phase 1 Screening Worksheet under the Initiating Events column.
Inspection Report# : 2006002*(pdf)*

Significance: G Dec 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Startup Procedure Resulted in an Inadvertent Carbon-Dioxide Fire Suppression Discharge and Declaration of a Notice of Unusual Event
A finding of very low safety significance was self-revealed during two events when use of an inadequate plant prestartup procedure resulted in actuation of the CARDOX Carbon Dioxide system. A Non-Cited Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified for the failure to include adequate acceptance criteria in Procedure N-0-02-CLA, "Plant Prestartup Checklist". The primary cause of this finding was related to the resource attribute in the cross-cutting area of Human Performance. The licensee failed to provide the operators with quality procedures containing criteria to know when the secondary plant was appropriately aligned.

The inspectors determined that the finding was greater than minor because it involved the configuration control, human performance, and procedure quality attributes of the Initiating Events Cornerstone. Additionally the finding affected the cornerstone objective of limiting the likelihood of those events that upset plant stability during power operations. Specifically, an incorrect lineup could exist in the secondary system resulting in an initiating event, or an unanalyzed secondary system response after a trip. The issue was of very low safety significance because the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. Corrective actions taken by the licensee include procedural enhancements to ensure that systems are lined up properly before continuing with plant startup.
Inspection Report# : 2005017*(pdf)*

Mitigating Systems

Significance: G Sep 30, 2006
Identified By: NRC
Item Type: FIN Finding
Technical Specification LCO not Entered for diesel Generators Inoperable while in Refueling Shutdown

Inspection Report# : 2006004*(pdf)*

Significance: G 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 surviellance 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: G 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: G 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: G 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: G 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)*

Significance: G May 05, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to maintain cable separation for cables 1N15010 and IN15012 associated with train 'B' of ICCMS

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)*

Significance: G Mar 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Ineffective Corrective Actions to Resolve Boric Acid Leakage from the 1A RHR Pump Flange Studs and Nuts
A finding of very low safety significance and an associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified by the inspectors for ineffective identification and the initiation of corrective actions to resolve boric acid leakage from the 1A residual heat removal (RHR) pump flange studs and nuts. The primary cause of this finding was attributed to the cross-cutting area of problem identification and resolution. During a review of corrective actions associated with the licensee's identification of a moderate amount of boric acid around various pump flange studs and nuts, the inspectors found that numerous prior occasions existed where the licensee had identified similar conditions yet failed to adequately identify and initiate actions to evaluate or correct this condition adverse to quality.

The licensee entered this item into its corrective action program and wrote a work order to replace the pump casing flange gasket.

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). Additionally, failure to correct a condition adverse to quality in a safety-related system, if left uncorrected, would become a more significant safety concern. The finding was of very low safety significance because the inspectors answered "no" to all the screening questions in the Significance Determination Process Phase 1 Screening Worksheet under the Mitigating Systems column.
Inspection Report# : 2006002*(pdf)*

Significance: G Mar 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Apply Appropriate Quality Classification to TSC Diesel Generator Modifications as Required by Procedures
A finding of very low safety significance and an associated non-cited violation of the Kewaunee Technical Specifications, Section 6.8, "Procedures," was identified by the inspectors during a review of plant modification Design Change Request 3490, which replaced the existing Technical Support Center diesel generator fuel oil day tank level switches with new level switches of a different design. 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 level switches should have been designated as "Augmented Quality." Contrary to this, the new switches were not designated as augmented quality. The primary cause of this finding was attributed to the cross-cutting area of problem identification and resolution because of the licensee's failure to take effective corrective actions for previously identified problems with its quality assurance program.

The licensee entered this item into its corrective action program and conducted supplemental audits of quality-designated equipment, added additional related elements to an upcoming quality assurance group audit of the quality assurance program, and the conduct of a cause evaluation of related issues.

The finding is greater than minor because it is 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). Additionally, failure to comply with the provisions of nuclear safety-related procedures, if left uncorrected, would become a more significant safety concern. The finding is of very low safety significance because the inspectors answered “no” to all the screening questions in the Significance Determination Process Phase 1 Screening Worksheet under the Mitigating Systems column.
Inspection Report# : 2006002*(pdf)*

Significance: G Mar 30, 2006
Identified By: NRC
Item Type: FIN Finding
Failure to Adequately Evaluate the Extent-of-Condition of Degraded Fuses in Installed Equipment
A finding of very low safety significance was identified by the inspectors for the failure to adequately evaluate the extent-of-condition relative to installed equipment for a 10 CFR Part 21 notification for degraded Bussmann® fuses. The primary cause of the finding was attributed to the cross-cutting area of human performance because procedures were available, but not followed, that would have facilitated proper performance of the task.

The licensee entered this item into its corrective action program and planned to review other installed fuses and to conduct an evaluation of original problem.

The finding was greater than minor because the failure to adequately evaluate the impact of potentially degraded safety-related fuses on installed equipment, if left uncorrected, would become a significant safety concern. Specifically, the condition could cause premature circuit interruptions of safety-related or risk significant mitigating components, when called upon to perform the related functions, and this is an undesirable condition. The finding was of very low safety significance because the inspectors answered “no” to all the screening questions in the Significance Determination Process Phase 1 Screening Worksheet under the Mitigating Systems column.
Inspection Report# : 2006002*(pdf)*

Significance: G Dec 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Adjustments Performed on Safety-Related Service Water Valve 4B Without Procedure Resulted in Valve Being Declared Inoperable
On October 5, 2005, a finding of very low safety significance was self-revealed when SW-4B failed to meet its In-Service Testing stroke time requirements during the performance of Surveillance Procedure SP-02-138B and an associated unplanned entry into a Technical Specification Limiting Condition for Operation occurred. The condition occurred because the licensee made adjustments to safety-related Valve SW-4B, "Turbine Building Service Water Train "B" Header Isolation," without procedural guidance to perform such adjustments. The primary cause of this finding was related to the personal attribute of the cross-cutting area of human performance because maintenance was performed without required procedures.

The finding was more than minor because performing adjustment of safety-related equipment without procedural guidance, if left uncorrected, would become a more significant safety concern. Additionally, the finding is associated with the Reactor Safety/Mitigating Systems Cornerstone attribute of Procedure Quality and effects the associated Cornerstone objective of insuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations," the inspectors answered "no" to all five screening questions in the Phase 1 Screening Worksheet under the Mitigating Systems column. Therefore, this finding was of very low safety significance. A Non-Cited Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified for the failure to provide procedural guidance for adjusting SW-4B; a safety-related valve which could affect the ability of safety-related mitigating system components to perform their intended function. Corrective actions taken by the licensee include procedural revisions to

strengthen guidance on adjustment of safety-related components.
Inspection Report# : 2005017*(pdf)*

Significance: G Dec 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Operator Licensing Exam Results Were Less Than Minimum Acceptable Percentage For Passing
A finding of very low safety significance was identified. The finding was associated with unsatisfactory operating crew performance on the simulator during facility-administered licensed annual operator requalification examinations. Of the 7 crews evaluated, 2 did not pass their annual operating tests. The finding is of very low safety significance because the failures occurred during testing of the operators on the simulator, because there were no actual consequences to the failures, and because the crews were removed from watch-standing duties, retrained, and re-evaluated before they were authorized to return to control room watches.
Inspection Report# : 2005017*(pdf)*

Significance: G Dec 16, 2005
Identified By: NRC
Item Type: FIN Finding
No Trending of Adverse Conditions Identified During Outages
The inspectors identified a finding of very low safety significance for the licensee not reviewing corrective action program documents (CAPs) during outages for potential trends of conditions adverse to quality. As part of the screening process of CAPs, the licensee assigned, as possible, CAPs to various "hot buttons." Hot buttons were searchable categories in the corrective action program computer system that had been established for various problems, such as equipment tagging errors, security door control, and reactivity management. For non-outage times, the licensee assigned a monthly number of hits for each hot button that, if exceeded for 3 months in succession, would result in the generation of a CAP to investigate a possible trend. However, as of December 16, 2005, the licensee did not use hot button action levels during outages when the number of CAPs written was much higher than during non-outage times.

This finding is greater than minor because if left uncorrected would become a more significant safety concern. This finding is not suitable for Significance Determination Process evaluation, but has been reviewed by NRC management and is determined to be a finding of very low safety significance. No violation of regulatory requirements occurred. The cause of the finding is related to the cross-cutting element of problem identification and resolution, because of not identifying potential conditions adverse to quality through trending of CAPs during outages.
Inspection Report# : 2005005*(pdf)*

Significance: G Dec 16, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Correct Procedure Non-Adherence
The inspectors identified a finding of very low safety significance and a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the failure to take corrective action for procedure non-compliance identified during the licensee's 2004 self-assessment of the corrective action program. As a result of the assessment, CAP025194, "Corrective Action Program Procedure and Guidance Document Use," was written and documented that plant workers were not following corrective action program procedures for apparent cause evaluations and root cause evaluations, effectiveness review content, priority and due date assignments, initiator feedback, and documentation of corrective action completion. To correct this problem, corrective action CA018094, "Corrective Action Program Procedure and Guidance Document Use," was written and specified one or 2 weeks of requiring "in-hand" use by the plant staff of the corrective action program administrative procedure. However, completion of this action was delayed several times and on July 25, 2005, CAP025194 and CA018094 were closed with the only documented action taken being a July 18, 2005, meeting of the station human performance steering committee at which the licensee decided not to take action because of the pending transition to the corrective action program documents of the plant's new owner.

This finding is greater than minor because if left uncorrected would become a more significant safety concern. This finding is not suitable for Significance Determination Process evaluation, but has been reviewed by NRC management and is

determined to be a finding of very low safety significance. The cause of the finding is related to the cross-cutting element of problem identification and resolution, because of the failure to take corrective action for non-adherence to station procedures.
Inspection Report# : 2005005*(pdf)*

Significance: G Dec 16, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Correct Residual Heat Removal Pump Seal Leakage
A finding of very low safety significance that was a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified for the licensee's ineffective corrective action to repair a leak on the seal of the "B" residual heat removal (RHR) pump. The leak was identified on November 2, 2005, when the pump was stopped following the performance of a required surveillance. The leak rate exceeded leakage control program limits. A similar leak was identified on June 16, 2004, for which the licensee replaced the seal in November 2004.

This finding is greater than minor because it was associated with the "RCS (reactor coolant system) equipment and barrier performance" attribute of the barrier integrity cornerstone and does affect the cornerstone objective of providing reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. Although the RCS barrier was affected, the finding did not affect the mitigation capability of the RHR system and did not contribute to the likelihood of a primary or secondary system loss of coolant accident initiator or affect the containment integrity. Therefore, the finding is of very low safety significance.
Inspection Report# : 2005005*(pdf)*

Significance: Y Oct 06, 2005
Identified By: NRC
Item Type: VIO Violation
Potential Flooding in the Turbine Building Basement
A review of design drawings by the inspectors revealed a direct piping connection from the turbine building sump to the trench in safeguards alley. The inspectors determined that there were no check valves located in the piping to prevent water spills in the turbine building basement from backing up into the safeguards alley. The inspectors also noted that no flood barriers specifically designed to protect equipment in the safeguards alley from flooding in the turbine building basement were installed. The inspectors requested additional information from the licensee regarding potential flooding events occurring in the safeguards alley. The licensee documented its response to the inspectors' information request in Condition Evaluation (CE) 014653. This CE stated that it would take approximately 3 hours for flooding caused by AFW pump discharge to affect safety-related equipment, and such flooding could be mitigated by opening doors between the safeguards alley and the turbine building basement. The CE also stated that other sources of flooding in the turbine building basement need not be considered since such flooding events are outside the design basis of the plant.

The inspectors identified a finding that was preliminarily determined to be of substantial to high safety significance because the licensee failed to provide adequate design control to ensure that Class I equipment was protected against damage from the rupture of a pipe or tank resulting in serious flooding or excessive steam release to the extent that the Class I equipment's function is impaired. Specifically, the design of Kewaunee Power Station (KPS) did not ensure that the auxiliary feedwater (AFW) pumps, the 480-volt (V) safeguards buses, the safe shutdown panel, emergency diesel generators (EDGs) 1A and 1B, and 4160-V safeguards buses 1-5 and 1-6 would be protected from random or seismically induced failures of non-Class I systems in the turbine building. The finding is also an apparent violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for not ensuring that the design of KPS prevented turbine building flooding from impacting multiple safety related equipment trains needed for safe shutdown of the plant. The inspectors determined that a primary cause of this finding was related to the cross-cutting area of Problem Identification and Resolution, because there was an earlier opportunity to discover and correct this issue based on the licensee's 2003 experience when minor flooding from the turbine building had challenged safety equipment located adjacent to the turbine building basement.

The finding was more than minor because it impacted Mitigating Systems cornerstone attributes of design control (initial design and plant modifications) and protection against external factors (internal flood hazards and seismic events) and it impacted the Mitigating Systems cornerstone objective to ensure availability, reliability and capability of multiple trains of safety related equipment to respond to events to prevent core damage. A Significance Determination Process Phase 3 risk

analysis determined that this finding was preliminarily of substantial to high safety significance. The licensee has taken significant corrective actions, including extensive system and structural modifications to address this issue.

After considering the information developed during the inspection, and the additional information you provided prior to, during, and in response to our questions at the Regulatory Conference, the NRC has concluded the inspection finding is appropriately characterized as Yellow (i.e., an issue with substantial importance to safety, that will result in additional NRC inspection and potentially other NRC action).
Inspection Report# : 2004009*(pdf)*
Inspection Report# : 2005002*(pdf)*
Inspection Report# : 2005011*(pdf)*
Inspection Report# : 2005018*(pdf)*
Inspection Report# : 2006015*(pdf)*

Significance: W Aug 16, 2005
Identified By: NRC
Item Type: VIO Violation
Potential Common Mode Failure of Auxiliary Feedwater
URI 05000305/2005002-05 is associated with the design of the AFW pump's discharge pressure switches. The inspectors identified the potential for air intrusion into operating AFW pumps, potentially resulting in a common mode failure of the AFW system. This could occur during certain events where the suction source is lost prior to being able to manually swap the source of water from the CST to the SW system.

The inspectors identified a finding that was preliminarily determined to be of low to moderate safety significance, because Kewaunee failed to provide adequate design control to ensure the AFW pumps would be protected from failure due to air ingestion during tornado or seismic events; as well as from failure during potential runout conditions. The finding is also an apparent violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for not effectively providing controls to check the adequacy of the design for protecting the AFW pumps during design and license basis events.

The finding was determined to be more than minor since it impacted Mitigating System cornerstone attributes of design control (initial design and plant modifications) and the cornerstone objective to ensure availability, reliability, and capability of the AFW system to respond to events to prevent core damage. A Significance Determination Process Phase 3 risk analysis determined that this finding was preliminarily of low to moderate safety significance. The licensee has taken significant corrective actions, including extensive modifications to the system.

After considering the information developed during the inspection, the NRC has concluded the inspection finding is appropriately characterized as White (i.e., an issue with low to moderate increased importance to safety, which may require additional NRC inspections).
Inspection Report# : 2006015*(pdf)*
Inspection Report# : 2005002*(pdf)*
Inspection Report# : 2005010*(pdf)*
Inspection Report# : 2005014*(pdf)*

Barrier Integrity

Significance: G 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: G 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)*

Significance: G Mar 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Evaluate Degraded Flow Conditions on a SW System Radiation Monitor
A finding of very low safety significance and an associated non-cited violation of the Kewaunee Technical Specifications, Section 6.8, "Procedures," was identified by the inspectors for the failure to adequately evaluate degraded flow in a service water system radiation monitor. The primary cause of this finding was attributed to the cross-cutting area of human performance because procedures were available, but not followed, that would have facilitated proper performance of the task.

The licensee entered this item into its corrective action program and planned to conduct inspections of other radiation monitor sample chambers, assess the need for an in-line filter, and assess the need for a modification to correct the recurring problem with the service water radiation monitor.

The finding was greater than minor because the finding involved conditions contrary to those required by the offsite dose calculation manual. Specifically, sampling requirements that were required to be initiated when the related radiation monitoring instrumentation should have been declared inoperable were not accomplished. The finding was of very low safety significance because no radiological releases were possible from the indicated pathways when the condition existed. Inspection Report# : 2006002*(pdf)*

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : December 21, 2006