Point Beach 1
1Q/2006 Plant Inspection Findings

Initiating Events

Significance: G Mar 31, 2006
Identified By: NRC
Item Type: FIN Finding
Self-Revealed Failure of Unit 1 Circulating Water Pump 1P-30B Due to Indadequate Maintenance
A finding of very low safety significance was self-revealed when the failure of circulating water (CW) pump 1P-30B and subsequent reactor trip occurred on December 13, 2005. This Green finding with no associated violation was identified for the licensee's failure to provide an adequate maintenance procedure for CW pump 1P-30B. Lack of appropriate maintenance to maintain required clearances, due to inadequate procedures, resulted in excessive clearances within the pump and the lower shaft sleeve failing directly above the flange where the shaft sleeve attached to the guide vane. The failure of the shaft sleeve caused increased vibration which resulted in low stress, high cycle fatigue of the coupling bolts. When the coupling bolts sheared, a rapid loss of condenser vacuum occurred and the operators initiated a manual reactor trip in anticipation of a total loss of vacuum.

The intermediate term corrective action was to perform a root cause evaluation for the failure mechanism and repair CW pump 1P-30B. Repair included replacement of the coupling and coupling bolts. The licensee completed the root cause evaluation and identified several actions to prevent recurrence.

The inspectors concluded the finding is greater than minor because it is associated with the equipment performance 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. The transient initiator contributor was a reactor trip that did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. Consequently, the finding is considered to be of very low safety significance.
Inspection Report# : 2006002*(pdf)*

Mitigating Systems

Significance: G Mar 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Maintain Leak Detection Capability
The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," having very low safety significance (Green) for the failure to maintain the design basis and configuration control for the detection of recirculation system leakage from the containment sump isolation valve cylinders (valves SI-850A and SI-850B for Units 1 and 2). This issue was initially identified by the inspectors during walkdowns and reviews of the containment sump recirculation piping in November/December 2005; however, at that time, the issue was not recognized by the licensee as part of the design basis of the facility. During a review of a request for additional information from the Office of Nuclear Reactor Regulation regarding a November 8, 2005, 10 CFR 50.72 report, the licensee subsequently determined that, in fact, leakage detection of the containment sump isolation valve cylinders through the pipe sleeve into the auxiliary building was part of the system's design and licensing basis.

At the end of the inspection, the licensee had not completed a causal evaluation; however, several interim actions were in place to address the operable, but non-conforming condition. The licensee had established a corrective action to determine how to resolve this non-conforming issue.

The inspectors concluded that this finding is greater than minor because it was associated with the design control and the equipment performance attributes of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors determined the finding is a design or qualification deficiency confirmed to not result in loss of function per NRC Generic Letter 91-18. Therefore, the inspectors determined that this finding is a licensee performance deficiency of very low risk significance (Green).
Inspection Report# : 2006002*(pdf)*

Significance: G Mar 31, 2006

Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Maintain Safety Function for SI-850 Valves in the Closed Direction
The inspectors identified a non-cited violation of 10 CFR 50, Appendix B, Criterion III, “Design Control,” having very low safety significance (Green) for the failure to ensure the safety function of the containment sump isolation valves was maintained and tested in accordance with the design and licensing basis. This issue was initially identified by the inspectors during walkdowns and reviews of the containment sump recirculation piping in November/December 2005; however, at that time, the issue was not recognized by the licensee as part of the design and licensing basis of the facility. The licensee subsequently determined that the design and licensing basis for the closed safety function of these valves was not properly implemented in accordance with the facility’s license and required codes or standards.

The licensee performed a causal evaluation and developed several interim and long-term corrective actions. Those corrective actions included: revision of the inservice testing program documents for testing the valves; revision of the design basis document (DBD) for the residual heat removal system; reinforcement of the expectations with engineering staff on the use of DBDs and inservice testing background documents; and development of a project plan to update the inservice test background document.

The inspectors concluded that this finding is greater than minor because it was associated with the design control, equipment performance and maintenance and testing procedure quality attributes of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors determined the finding is a design or qualification deficiency confirmed to not result in a loss of function per NRC Generic Letter 91-18. Therefore, the inspectors determined that this finding is a licensee performance deficiency of very low risk significance.
Inspection Report# : 2006002*(pdf)*

Significance: G Mar 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Address Effects of Elevated Temperatures on control Room Instruments
The inspectors identified a non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” having very low safety significance (Green) when the licensee failed to consider the effects of elevated control room temperatures on instrument inaccuracies following a design basis loss-of-coolant accident, which could potentially affect mitigation of the event. During the Problem Identification and Resolution Inspection documented in NRC Inspection Report 2005012, the inspectors identified an unresolved item (URI) related to the effects of elevated control room temperatures on instrument accuracies and accident mitigation during a design basis loss of coolant accident. Subsequent review and root cause evaluation determined that the licensee had failed to consider the effects of elevated control room temperatures on instrument inaccuracies for a calculation associated with the reconstitution project.

The licensee entered the issue in its corrective action system and performed a root cause analysis. Corrective actions to prevent recurrence included strengthening review requirements for the 30 percent, 60 percent and Owner Acceptance Review of vendor-supplied calculations for the calculation reconstitution project.

The inspectors concluded that the finding was greater than minor, as the finding represented a programmatic deficiency associated with the calculation reconstitution project that, if left uncorrected, would become a more significant concern due to calculation errors. The design deficiency did not result in a loss of function per Generic Letter 91-18 as sufficient emergency diesel generators remained available through administrative controls to provide electrical power for operators to promptly restart the control room ventilation system, hence the finding screened as very low safety significance (Green).
Inspection Report# : 2006002*(pdf)*

Significance: G Dec 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform Safety Evaluations on Safety Related Motors
A finding of very low safety significance was identified by the inspectors associated with the replacement of the 1P-10A residual heat removal pump (RHR) motor. A Non-Cited Violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," was identified for the failure to perform an equivalency evaluation for exceptions taken to motor specifications in the refurbishment of safety-related equipment. Specifically, the licensee failed to perform a technical evaluation for exceptions taken by the vendor to the licensee's motor specification for the 1P-10A RHR pump motor. Once identified, the licensee initiated a corrective action program document (CAP) to perform an engineering evaluation before placing 1P-10A in service. The licensee also initiated an extent of condition review to ensure that other equipment was not subject to the same issues..

The inspectors determined that the finding was greater than minor because it: (1) involved the design control attribute of the Mitigating Systems Cornerstone; and (2) affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the finding using Inspection Manual Chapter 0609, Appendix G, Phase 1 Screening, and determined that Checklist 4, "PWR Refueling Operation: RCS level > 23' OR PWR Shutdown Operation with Time to Boil > 2 hours And Inventory in the Pressurizer," applied, specifically Section I.C, "Core Heat Removal Guidelines - Equipment." However, because the ‘A' RHR loop was not in operation and the ‘B' train RHR loop was operable and in operation with support systems available, the inspectors determined that Section I.C was not affected. Additionally, the finding did not meet the Checklist 4 criteria for Phase 2 or Phase 3

quantitative analysis because the finding did not: increase the likelihood of a loss of reactor coolant system (RCS) inventory, including a loss of RCS level instrumentation; degrade the licensee's ability to terminate a leak path or add RCS inventory when needed; or degrade the licensee's ability to recover decay heat removal once it was lost. The inspectors also determined that the finding was of very low safety significance because no event occurred that could be characterized as a loss of control as listed in Table 1 of Inspection Manual Chapter 0609, Appendix G. Therefore, the finding was considered to be of very low safety significance.
Inspection Report# : 2005013*(pdf)*

Significance: G Dec 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Implement Procedures Related to Containment Debris Near ECCS Sump
A finding associated with a Non-Cited Violation of Technical Specification 5.4.1, Procedures, was identified by the inspectors when the licensee failed, on two different occasions during the refueling outage, to perform adequate containment walkdowns to verify that no debris was present in the vicinity of the Emergency Core Cooling System Containment Sump which could potentially impact operability. Failure to identify and remove the debris that were missed on the licensee walkdowns could have potentially challenged emergency core cooling system sump operability.

This finding is more than minor significance in that, the finding was associated with the Mitigating Systems Cornerstone and adversely impacted the cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Additionally, if left uncorrected, the finding would become a more significant safety concern. Specifically, debris left in the vicinity of the emergency core cooling system sump screen could partially impede flow to the RHR pumps, or result in head loss across a blocked sump screen affecting the net positive suction head available to the RHR pumps, during the recirculation phase and long term cooling following a loss-of-coolant accident or following a reactor vessel head drop event.

However, the finding is of very low safety significance as the finding did not increase the likelihood that a loss of RHR reactor coolant system (RCS) inventory, RCS level control, or power would occur. The finding did not degrade the licensee's ability to terminate a leak path, add RCS inventory, recover RHR once lost, establish an alternate core cooling path if RHR could not be re-established, or degrade the ability of containment to remain intact following a severe accident. Therefore, the finding was considered to be of very low significance. The inspectors also determined that a primary cause of this finding was related to the cross-cutting area of problem identification and resolution. The licensee failed to perform a causal analysis or extent of condition review, for the first instance of an inadequate ECCS sump debris inspection identified by the inspectors on October 4, 2005.
Inspection Report# : 2005013*(pdf)*

Significance: G Dec 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Design Verification Testing of SI 850 Valves
The inspectors identified a finding involving a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," having very low safety significance for failure to complete testing, to demonstrate that the containment sump isolation valves (SI-850s) would remain open during post loss of coolant accident containment recirculation. This finding was entered into the licensee's corrective action program.

This finding was more than minor significance, because it affected the design control; and the equipment performance attributes of the Mitigating Systems Cornerstone; and affected the equipment reliability objective for this cornerstone. Equipment reliability was affected because, as these valves begin to drift shut, the post loss of coolant accident recirculation flow would be affected and require operator actions to compensate for valve drift to ensure adequate long term core cooling. The inspectors answered "yes" to the question in the Mitigating Systems Cornerstone worksheet, which asked if the finding was a design or qualification deficiency, confirmed to not result in loss of function per Generic Letter 91-18. Therefore, the inspectors determined that this finding was a licensee performance deficiency of very low risk significance.
Inspection Report# : 2005013*(pdf)*

Significance: G Dec 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Corrective Actions for Potential Boric Acid Corrosion of SI-850 Valves
The inspectors identified a finding involving a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action" having very low safety significance for failure to implement prompt corrective actions and inspect carbon steel hydraulic operating cylinder components on the 1(2) SI-850(A)(B) valve actuators after becoming aware of the nonconforming and potentially degraded conditions involving boric acid deposits and associated corrosion. The licensee implemented actions to clean up boric acid deposits and entered this finding into the corrective action program.

This finding was more than minor significance because absent NRC intervention, this issue could have become a more significant safety concern. Specifically, the licensee would have allowed an acidic environment (boric acid deposits) or aqueous environment (submerged fasteners) for these carbon steel components to continue for an indefinite period of time which could have resulted in corrosion induced failures

of the SI-850 valve actuators and it affected the Mitigating Systems Cornerstone objective of equipment reliability. The inspectors answered "yes" to the question in the Mitigating Systems Cornerstone worksheet which asked if the finding was a design or qualification deficiency confirmed to not result in loss of function per Generic Letter 91-18. Therefore, the inspectors determined that this finding was a licensee performance deficiency of very low risk significance. The cause of the finding was related to the cross-cutting element of problem identification and resolution.
Inspection Report# : 2005013*(pdf)*

Significance: SL-IV Dec 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Multiple Examples of the Failure to Notify the NRC Within 8 Hours as Required by 10 CFR 50.72
A finding of very low safety significance (with three examples) was identified by the inspectors for failure to notify the NRC within 8 hours in accordance with 10 CFR 50.72(b)(3)(ii)(B), following the identification that the nuclear power plant was in an unanalyzed condition that significantly degraded plant safety. Each occurrence was reported by the licensee following repeated questioning by the inspectors which occurred in April, September and November 2005. Following the November occurrence, the inspectors reviewed the licensee's previous causal evaluations and corrective actions. The inspectors noted that while the licensee had appropriately evaluated and initiated corrective actions for the technical issues in April and September 2005, the licensee had not appropriately evaluated or developed any corrective actions to address the failure to adequately report these issues to the NRC in a timely manner. Therefore, the inspectors also determined that a primary cause of this finding was related to the cross-cutting area of problem identification and resolution, because the licensee failed to appropriately evaluate and take adequate corrective actions for the reportability aspect of these issues.

Because this issue affects the NRC's ability to perform its regulatory function, it was evaluated using the traditional enforcement process. The inspectors determined that this violation is of very low safety significance and because the licensee entered the issue into their corrective action program (CAP068938), this violation is being treated as an NCV consistent with Section VI.A.1 of the NRC Enforcement Policy. The licensee has taken actions to perform a causal evaluation and address the knowledge, and procedural aspects of this finding.
Inspection Report# : 2005013*(pdf)*

Significance: G Dec 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Promptly Correct Potential Crimping Vulnerability of AFW Recirculation Line
A Non-Cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," having very low safety significance was identified by the inspector. Specifically, the licensee failed to promptly correct a condition adverse to quality, the potential for the auxiliary feedwater (AFW) recirculation line to crimp during a design basis earthquake (DBE) or design basis tornado (DBT) event. The licensee missed prior opportunities to correct the adverse condition: 1) as a result of the two Red findings related to the AFW System, the licensee reviewed the AFW system for the effects of high energy line break, DBE, and DBT events and identified crimping of the non-safety related portion of the common AFW recirculation line as a potential common mode failure; and 2) an external self-assessment in mid-2003 also concluded that crimping of the AFW recirculation line was credible and a potential common mode failure.

The licensee corrected this adverse condition by: 1) installing a pretested replacement for AFW pump recirculation line relief valve AF-4035 that was manufactured to meet ASME Code Section VIII requirements; and 2) having commitments to periodically replace AFW recirculation line relief valve AF-4035 with a pretested valve. These actions provided reasonable assurance that AF-4035 would provide the required flowpath to protect the AFW pumps if the AFW recirculation line crimped during a DBE or DBT event. The licensee planned to supplement CAP066199 to address the inadequate corrective actions.

The finding was more than minor because it affected the Mitigating Systems Cornerstone objective to ensure the availability, reliability, and capability of systems that mitigate transients and the reactor accidents, and if left uncorrected, the finding could become a more significant safety concern. Specifically, if left uncorrected the AFW recirculation line relief valve could have deteriorated over time, failed to open as designed, and not provided the required recirculation line flowpath to protect the AFW pumps if the recirculation line crimped during a DBE or DBT event. The finding was of very low safety significance because testing of the original AFW recirculation line relief valve demonstrated that the relief valve would have opened as designed and would have provided the required AFW recirculation flowpath if the AFW recirculation line crimped during a DBE or DBT event. The inspectors also determined that a primary cause of this finding was related to the cross-cutting area of problem identification and resolution, because the licensee failed to take adequate corrective actions.
Inspection Report# : 2005013*(pdf)*

Significance: SL-IV Dec 16, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform a 10 CFR 50.59 Evaluation for Compensatory Actions Associated with Letdown Line Automatic Isolation
The inspectors identified a Severity Level IV Non-Cited Violation of 10 CFR 50.59(d)(1) for the licensee's failure to perform a safety evaluation for compensatory actions taken for an activity associated with a degraded plant condition. Specifically, the licensee "screened out" an activity which replaced an automatic action for Chemical and Volume Control System (CVCS) letdown isolation on low pressurizer level with a manual action to isolate letdown on low pressurizer level, while replacing the Unit 2 pressurizer low level bistables with Unit 2 online at power. At the end of the inspection period, the licensee planned to perform a safety evaluation in accordance with 10 CFR Part 50.59 for the compensatory actions taken for the activity associated with the degraded plant condition.

Because the issue affected 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 the inspectors, at the time of the inspection, could not reasonably determine that the UFSAR change, which adversely affected equipment important to safety, would not have ultimately required NRC approval. The inspectors evaluated the finding using IMC 0609, Appendix A, Phase 1 screening for the mitigating systems cornerstone and determined that the finding was of very low safety significance because the finding was not a design or qualification deficiency that was confirmed to result in a loss of operability or functionality per "Part 9900, Technical Guidance, Operability Determination Process for Operability and Functional Assessment."
Inspection Report# : 2005018*(pdf)*

Significance: G Dec 16, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Apply Adequate Design Controls During Replacement of Service Water (SW) Valves SW-360 and SW-322
A self-revealed finding of very low safety significance was identified by the inspectors associated with a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control." During replacement of the Service Water outlet valves for the Component Cooling Water (CCW) heat exchangers, the licensee failed to evaluate design differences between the original valves and the replacement valves. These differences led to the eventual failure of the stems in both valves.

The issue was more than minor because it affected the mitigating system cornerstone attribute of "Design Control." The finding screened as having very low significance (Green) using IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for the At-Power Situations," because the inspectors answered "no" to all five questions under the Mitigating Systems Cornerstone column of the Phase 1 worksheet. While the design deficiency led to failure of the valves, the failures occurred during a plant shutdown; therefore, the valves would not have been required to function as designed.
Inspection Report# : 2005018*(pdf)*

Significance: G Oct 06, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Corrective Action Violation for Failure to Enter a Potential Condition Adverse to Quality into the Corrective Action Program
The team identified a Green Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for failure to enter into the corrective action program vendor information with the potential to degrade safety-related equipment. Specifically, in June 2005, no corrective action program document was written after the licensee was notified by the reactor head vendor about potential problems resulting from the method of storage in the containment. The licensee subsequently entered the issue into its corrective action program. As part of the corrective actions, the licensee counseled plant personnel in the reactor head replacement project about the need to enter such issues into the corrective action program.

This finding was more than minor because a more significant safety concern could occur if similar vendor issues were not entered into the corrective action program. The finding was of very low safety significance because the vendor subsequently determined that the head storage had been acceptable, no safety function was lost, no Technical Specification train or maintenance rule safety function was lost, and there were no external event concerns. The inspectors also determined that a primary cause of this finding was related to the cross-cutting aspect of problem identification and resolution in the area of identification, because the licensee failed to promptly identify a condition adverse to quality.
Inspection Report# : 2005012*(pdf)*

Significance: G Oct 06, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Design Control Violation for Failure to Incorporate Diesel Information into Procedures
The team identified a Green Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure, from around 1994 to the date of the inspection, to translate emergency diesel generator licensing and design bases into emergency and abnormal operating procedures. One emergency operating procedure and one abnormal operating procedure on each unit did not contain the diesel generator ratings and directed operators to place loads on the diesel generators that could exceed the licensing basis load limit. The licensee subsequently entered the issue into its corrective action program. As part of the corrective actions, the licensee revised the procedures to incorporate the appropriate information.

This finding was more than minor because it involved the design control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective. Exceeding the licensing basis limit for diesel generator loading could affect the capability of the diesel generator to respond to a design basis accident, concurrent with a loss of offsite power and a single failure. The finding was of very low safety significance because this was a design deficiency with no loss of safety function
Inspection Report# : 2005012*(pdf)*

Significance: G Oct 06, 2005
Identified By: NRC
Item Type: FIN Finding
Inadequate Extent-of-Condition Evaluation for an Inadequate Abnormal Operating Procedure
The team identified a Green finding for the failure, in around July 2005, to perform an adequate extent-of-condition review following problems with auxiliary feedwater local control stations. After the apparent cause evaluation determined ineffective procedure validation had occurred, the extent-of-condition review did not check other procedures for similar problems. The licensee subsequently entered the issue into its corrective action program. As part of the corrective actions, the licensee was reviewing other procedures for similar problems.

This finding was more than minor because if left uncorrected, it could eventually result in failing to promptly identify conditions adverse to quality. The finding was of very low safety significance because no safety function was lost, no technical specification train or maintenance rule safety function was lost, and there were no external event concerns. The inspectors also determined that a primary cause of this finding was related to the cross-cutting aspect of problem identification and resolution in the area of evaluation, because the licensee failed to adequately evaluate a condition adverse to quality.
Inspection Report# : 2005012*(pdf)*

Significance: G Sep 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Corrective Action Violation for Untimely Repair of Emergency Diesel Generator Cooling System Endbells With Microbiologically-Induced Corrosion
The inspectors identified a Green finding with an associated Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the failure to take adequate corrective action for microbiologically-induced corrosion (MIC) of the endbells of the service water cooling system of the G-01 emergency diesel generator (EDG). Specifically, significant wastage caused by MIC, on the EDG endbells was identified in 2001 and work orders were written to replace the endbells. However, as of March 20, 2005, the endbells were not replaced which resulted in a self-revealed through-wall leak from MIC on an endbell, requiring the diesel to be removed from service to effect repairs. The licensee took immediate corrective actions to replace the endbell, followed by replacement of other susceptible EDG endbells. In addition, the licensee proposed changes to the predictive maintenance program to better identify potential sources of MIC corrosion in service water system components.

The issue was more than minor because the finding was associated with the equipment performance attribute of the Mitigating System cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In addition, if left uncorrected, the finding could have become a more significant safety concern. The finding was determined to be of very low safety significance because there was no design deficiency, no actual loss of safety function, no single train loss of safety function for greater than the Technical Specification allowed outage time, and no risk due to external events. The inspectors also determined that a primary cause of this finding was related to the cross-cutting area of problem identification and resolution, because the licensee failed to take adequate corrective actions.
Inspection Report# : 2005010*(pdf)*

Significance: G Sep 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Technical Specification Violation for Inoperable Emergency Diesel Generator Because of Mispositioned Room Exhaust Fan Breaker
The inspectors identified a Green finding with an associated Non-Cited Violation of Technical Specification 3.8.1.E for the self-revealed problem on August 7, 2005, when one of the required room exhaust fans for the G-01 EDG failed to start due to a mispositioned breaker. The licensee returned the breaker to the proper position and investigated the cause of the mispositioning. The licensee planned and had taken additional corrective actions to provide clarification for aborting a procedure or scheduled activity and for ensuring equipment was appropriately returned to service.

The finding was more than minor, in that, it was associated with the configuration control attribute of the Mitigating System cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was determined to be of very low safety significance because it did not involve a design deficiency, there was no actual loss of safety function, no single train loss of safety function for greater than the Technical Specification (TS)-allowed outage time, and no risk due to external events. The inspectors also determined that a primary cause of this finding was related to the cross-cutting area of human performance, because the licensee failed to ensure that the appropriate conditions were established after completion and cancellation of maintenance activities and before re-aligning G-01 to the safeguards bus.
Inspection Report# : 2005010*(pdf)*

Significance: G Sep 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Technical Specification Violation for Lack of a Procedure for Tripping Failed Loss-of-Voltage Relays

The inspectors identified a Green finding with an associated Non-Cited Violation of Technical Specification 5.4.1 for the failure to have a procedure to trip a loss-of-voltage time delay relay, a specific and foreseen potential malfunction, after the time delay function of the channel had failed. Specifically, on August 17, 2005, relay 1-62-3/A-06, associated with one channel of the 4160-Volt loss-of-voltage time delay function of the loss of offsite power EDG start and load sequence instrumentation, failed during calibration and testing. The licensee was not able to place the channel in trip in one hour (as required by TSs) due to not having an established procedure for performing this activity. The licensee took immediate corrective actions to correct the condition by replacing the time delay relay. In addition, at the end of the inspection period, the licensee planned additional evaluations and corrective actions to ensure the capability of performing the Technical Specification Action Condition within the required time frame.

The finding was more than minor, in that, it was associated with the procedure quality attribute of the Mitigating System cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was determined to be of very low risk significance because it did not involve a design deficiency, there was no actual loss of safety function, no single train loss of safety function for greater than the TS-allowed outage time, and no risk due to external events.
Inspection Report# : 2005010*(pdf)*

Significance: G Aug 19, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedure for Starting Motor-Driven AFW Pumps for Certain Control Room Evacuations
A Green finding associated with a Non-Cited Violation of Title 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed on July 19, 2005, for the failure to have an appropriate procedure to assure proper operation of the motor-driven auxiliary feedwater (AFW) minimum recirculation valves when operating the AFW system from outside the control room using local panels N-01 and N-02. As a result, if operators had performed AOP-10, "Control Room Inaccessibility," Revision 3, during an event, minimum recirculation valves AF-4007 and AF-4014 would not have opened when the AFW pumps were locally started with the discharge valves closed. This could have caused pump damage within one to two minutes.

The issue was more than minor because the finding was associated with the configuration control attribute of the Mitigating Systems cornerstone and adversely impacted the cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the finding using IMC 0609, Appendix A, which indicated that a Phase 2 evaluation was necessary. However, because procedure AOP-10 was used when the control room was evacuated with no Appendix R fire and no other accident conditions, a Phase 3 evaluation was performed. The issue was characterized as Green based on the low initiating event frequency (evacuation of the control room for reasons other than an Appendix R fire) coupled with the accident mitigation available from the turbine-driven AFW pumps and feed and bleed capability. The licensee took prompt corrective action to revise procedure AOP-10.
Inspection Report# : 2005011*(pdf)*

Significance: SL-IV Aug 19, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
No 50.59 Safety Evaluation for a 2002 Modification to AFW
The inspectors identified a Severity Level IV, Non-Cited Violation of 10 CFR 50.59(d)(1) for the licensee's failure in September 2002 to perform a safety evaluation of the removal of the internals of the auxiliary feedwater (AFW) common recirculation line check valve, AF-117. Specifically, the licensee ‘screened out' adverse changes made concerning the function and operation of all four AFW pumps. In this case, an automatic passive design feature of the AFW recirculation line piping was being made unavailable and the function was being changed to operation of an untested, nonsafety-related, active component--the AFW common recirculation line relief valve AF-4035--and it was being supplemented through the use of manual operator actions. This change warranted a 10 CFR 50.59 safety evaluation to determine if the changes met the criteria requiring a licensee amendment.

Because the issue potentially affected the NRC's ability to perform its regulatory function, this finding was evaluated using the traditional enforcement process. This finding was determined to be more than minor because the inspectors could not reasonably determine that the original change would have ultimately required NRC approval. The inspectors completed a Significance Determination Review using IMC 0609, Appendix A "Significance Determination of Reactor Inspection Findings for At Power Situations." Using the Phase 1 Screening worksheet the finding was determined to be of very low safety significance (Green) since the finding did not represent an actual loss of safety function for greater than the Technical Specification allowed outage time. Comparing this item to the examples in NUREG 1600, Supplement I, this finding is similar to Item D.5, "Violations of 10 CFR 50.59 that do not involve circumstances in which a change that required prior Commission approval would not be found acceptable had the approval been sought." As a result, the issue was considered to be of very low safety significance and was dispositioned as a Severity Level IV, Non-Cited Violation (NCV).
Inspection Report# : 2005011*(pdf)*

Significance: G Jun 30, 2005
Identified By: NRC
Item Type: FIN Finding
Adverse Trend of Failure to Ensure Causal Evaluations for Conditions Adverse to Quality for which Operability Recommendations were Performed

The inspectors identified a finding of very low significance (Green) for an adverse trend of failures to perform causal evaluations for conditions adverse to quality which only received operability recommendations, to ensure the cause of the conditions were identified and corrected. The licensee further evaluated the issue and corroborated the adverse trend, and in addition identified the issue potentially extended to condition reports documenting conditions adverse to quality with only maintenance rule evaluations performed. No violation of NRC requirements occurred.

The inspectors also determined that the primary cause of this finding was related to the cross-cutting area of Problem Identification and Resolution, because the licensee failed to perform causal evaluations commensurate with the significance of the condition reports to ensure the conditions adverse to quality were identified and corrected.

The issue was more than minor because the underlying issues associated with the finding were associated with the equipment performance and design control attributes of the Mitigating Systems cornerstone and adversely impacted the cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the finding using IMC 0609, Appendix A, Phase 1 screening for the Mitigating Systems cornerstone and determined the finding was of very low significance. The licensee took action to enter the item into the corrective action process and develop interim corrective actions. At the end of the inspection period, the licensee had not completed the evaluation of the finding.
Inspection Report# : 2005004*(pdf)*

Significance: N/A Mar 24, 2003
Identified By: NRC
Item Type: VIO Violation
The failure to identify the root cause and implement corrective actions for the AFW/IA issue, a significant condition adverse to quality, so as to prevent recurrence.
A violation was identified for the licensee's failure to implement adequate corrective actions to effectively address a previous Red finding and preclude recurrence (Inspection Report 50-266/01-17; 50-301/01-17). Specifically, the licensee failed to identify potential common mode failures that existed involving power supplies to the recirculation line air-operated valve and other system components. In addition, the licensee's corrective actions for the potential common mode failure associated with a loss of instrument air did not preclude repetition. Specifically, the licensee's corrective actions, to upgrade the safety function of the air-operated recirculation valve, failed to ensure that successful operation of the recirculation line air-operated valve was dependent only on safety-related support systems. Following the corrective actions, successful operation of the valve was still dependent upon nonsafety-related power to an interposing relay. Additionally, the corrective actions failed to discover a single failure mechanism involving a system orifice modification.

The issue was more than minor because the failure to implement appropriate corrective actions resulted in the auxiliary feedwater system continuing to rely on nonsafety-related support systems and to be susceptible to a single event causing a total system failure. The failure of nonsafety-related support systems and single event failures are an expected condition during several design basis accidents and should not cause a safety system to fail. The failure of the licensee to implement adequate corrective actions is a violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action."

This violation is associated with a previously identified RED finding (IR 50-266;50-30/01-17).
Inspection Report# : 2002015*(pdf)*

Significance: Y Mar 24, 2003
Identified By: NRC
Item Type: VIO Violation
Apparent violation of 10 CFR Part 50, Appendix B, Criterion III for the failure to establish appropriate design control measures for the installation of orifices to the AFW recirculation lines
An apparent violation was identified, in part, through a self-revealing event when decreased auxiliary feedwater pump recirculation flow was noted during post-maintenance testing. Subsequent licensee and NRC review of the event determined that the licensee had installed incorrectly designed orifices in each of the pump recirculation lines. The orifices, due to small clearances, were susceptible to plugging. The primary causes of this finding were inadequacies in the licensee's design process and the licensee's implementation of the process, including the identification of system design requirements and the development of supporting safety evaluations.

The issue has been preliminarily determined to have high safety significance (Red). Following installation of the inadequately designed orifices, the entire auxiliary feedwater system was susceptible to a common mode failure during operations using service water. Failure of auxiliary feedwater during several initiating events could lead to core damage. The installation of the incorrectly designed orifices in the recirculation lines is an apparent violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control."

On December 11, 2003, the final significance determination letter was issued for this finding. It was determined that this is a RED finding for Unit 2 and a YELLOW finding for Unit 1. For tracking purposes, identical findings were opened for Unit 1 (designated as YELLOW) and Unit 2 (designated as RED).
Inspection Report# : 2002015*(pdf)*

Significance: R Feb 28, 2002
Identified By: Licensee

Item Type: VIO Violation
POTENTIAL COMMON MODE FAILURE OF AUXILIARY FEEDWATER PUMPS DUE TO INADEQUATE PROCEDURAL GUIDANCE
Units 1 and 2. The licensee identified a potential common mode failure of the auxiliary feedwater pumps due to operator actions specified in plant procedures. The team identified that procedural guidance provided to operators was inadequate to prevent such a common mode failure. In addition, the team identified that the licensee had seven opportunities, from 1981 through 1997, to identifiy the problem and take appropriate corrective actions. After considering the information developed during the inspection and the information the licensee provided at the April 29, 2002, regulatory conference, the NRC concluded that a violation of 10 CFR Part 50, Appendix B, Criterion XVI, was appropriate for two of the originally proposed seven examples. The failures to provide adequate procedural guidance and to take appropriate corrective actions are both a violation of 10 CFR Part 50, Appendix B, Criteria V and XVI. This issue has been determined to have high safety significance (Red). A common mode failure of the auxiliary feedwater pumps would result in substantially reduced mitigation capability for safely shutting down the plant in response to certain transients. The significance was determined to be high largely due to the relatively high initiating event frequencies associated with the involved transients and the high likelihood of improper operator actions due to the procedural inadequacies. The final significance determination for the Red finding and Notice of Violation were issued to the licensee in a letter dated July 12, 2002.

Inspection Report 50-266/02-15; 50-301/02-15, issued April 2, 2003, documented the NRC decision that this finding is not an Old Design Issue.
Inspection Report# : 2001017*(pdf)*
Inspection Report# : 2003003*(pdf)*

Barrier Integrity

Significance: SL-IV Dec 16, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Updated Final Safety Analysis Report Change to Replace ASME Class II, Seismic Class I, Piping with a Freeze Seal
The inspectors identified a Severity Level IV Non-Cited Violation associated with the failure to perform an adequate safety evaluation review as required by 10 CFR 50.59 for changes made to the facility as described in the UFSAR. In their safety evaluation, EVAL 2004-003, the licensee failed to provide a basis for the determination that on-line repairs to the excess letdown line with a freeze seal in place as a boundary for Reactor Coolant System (RCS) effluent from the Reactor Coolant Pumps (RCPs) was acceptable without a license amendment. Specifically, for this freeze seal evolution, the licensee would have replaced the American Society of Mechanical Engineers (ASME) Class II, Seismic Class I piping in the excess letdown line with a freeze plug while the plant was still on-line. Within the 10 CFR 50.59 evaluation, the licensee failed to provide a basis for why this freeze seal evolution did not present more than a minimal increase in the likelihood of occurrence of a malfunction of a Structure, System and Component (SSC) important to safety.

Because the issue affected 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 the inspectors could not reasonably determine that the UFSAR change, which adversely affected equipment important to safety, would not have ultimately required NRC approval. The finding was determined to be of very low safety significance (Green), because the inspectors answered "no" to all three questions under the Containment Barriers Cornerstone column of the Phase 1 worksheet.
Inspection Report# : 2005018*(pdf)*

Significance: G Jun 30, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Implement Adequate Corrective Actions to Preclude Repetition of a Significant Condition Adverse to Quality
A Green finding associated with a Non-Cited Violation of Title 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for the failure to take adequate corrective action to preclude repetition of a significant condition adverse to quality was identified by the inspectors. Specifically, the licensee identified that the root cause of an April 9, 2004, potential loss of a hot leg vent path during nozzle dam installation, a failure to adequately identify, track and maintain licensee commitments to Generic Letter 88-17 in plant procedures, a significant condition adverse to quality. Prior to the start of the Unit 2 Refueling Outage, the inspectors identified that the approved outage shutdown safety analysis contained an orange risk path, during which the licensee would have been unable to close the containment equipment hatch within the time to boil the water around the fuel. The licensee's root cause evaluation for this issue identified the root cause was the same as the April 2004 event; therefore, the licensee's corrective actions from the April 2004 event failed to preclude repetition of the identified cause. The licensee took prompt corrective action to remove these planned activities from the outage schedule to ensure the equipment hatch was closed when the reactor coolant system (RCS) was breached; however, the licensee also identified in the root cause evaluation that this configuration actually occurred in the 1999 Unit 1 Refueling Outage.

The inspectors also determined that a primary cause of this finding was related to the cross-cutting area of Problem Identification and Resolution, because the licensee failed to take adequate corrective actions to preclude repetition of a significant condition adverse to quality.

The issue was more than minor because the finding was associated with preserving the containment boundary attribute of the Barrier Integrity cornerstone and affected the cornerstone objective of providing reasonable assurance that the physical design barriers (Containment) protect the

public from radionuclide releases cause by accidents or events. The inspectors evaluated the finding using IMC 0609, Appendix G, Phase 1 Screening, Checklist 3, "PWR Cold Shutdown and Refueling Operation RCS Open and Refueling Cavity Level <23'," specifically Section IV, "Containment Control Guidelines." The finding dealt with the procedures and training to close containment prior to core boiling when the RCS was open. The finding did not meet any of the criteria requiring a Phase 2 or 3 Analysis per Appendix G, Checklist 3, specifically findings that degrade the ability of containment to remain intact following a severe accident. This was in part due to the type of RCS system breach which was scheduled. Therefore, the finding was determined to be of very low significance. The licensee took prompt action to enter the item into the corrective action process, evaluate the issues and develop corrective actions to address the causes of this finding to preclude repetition.
Inspection Report# : 2005004*(pdf)*

Emergency Preparedness

Significance: W Dec 16, 2005
Identified By: NRC
Item Type: VIO Violation
Observation and Review of Emergency Preparedness Drill, August 1, 2002
On December 16, 2005, the staff issued a WHITE finding and NOV of 10 CFR 50.47. The WHITE finding was associated with the failure to self-identify the untimely declaration of an Alert classification during an August 2002 Emergency Preparedness drill. The inspection finding was assessed using the Significance Determination Process and was preliminarily characterized as WHITE.

In a January, 2006 telephone call, the licensee was informed that the NRC would be taking a one-time deviation from the Action Matrix process. Normally, a supplemental 95001 inspection would be performed after a WHITE finding is determined; however, in this case, the effectiveness of the licensee's corrective actions to improve the capability to identify, track, and resolve critique items associated with EP drills and exercises was demonstrated with no findings or PIs greater than GREEN identified by NRC since August 2003. Additionally, both individuals involved with providing inaccurate information had their employments terminated on December 20, 2002. The WHITE finding will not be considered indicative of current performance in the EP cornerstone, and will not be considered in formulating a regulatory course of action should a new WHITE finding occur in the EP cornerstone.

Inspection Report# : 2002010*(pdf)*
Inspection Report# : 2005017*(pdf)*

Significance: SL-III Nov 30, 2005
Identified By: NRC
Item Type: VIO Violation
Failure to Provide Complete and Accurate Information from August 1, 2002 EP drill
On December 16, 2005, the staff proposed a severity level III NOV of 10 CFR 50.9, and $60,000 civil penalty. The violation involved inaccurate information provided to the NRC associated with a critique of the August 2002 EP drill.

In summary, on or about November 20, 2002, the licensee provided the Commission with information that was not complete and accurate in all material respects, concerning the results of post-drill critiques of an August 1, 2002 EP drill. Specifically, during an NRC inspection, the former Point Beach EP Manager provided NRC inspectors with a "Drill and Exercise Performance - Performance Indicator Evaluation Form", which indicated that the licensee had self-identified an untimely declaration of an Alert classification during the post-drill critique. In fact, the licensee had not identified the drill weakness during the August 2002 critique. The original document was date August 2, 2002, and stated that the licensee had declared the Alert classification 5 minutes after plant parameters reached the Emergency Action Level, and within the 15 minute limit. However, on or about November 15, 2002, the former EP Manager and former EP Coordinator altered the document to indicate that the Alert classification was made after the 15 minute limit had been exceeded. The EP Manager and former EP Coordinator also backdated the document to August 23, 2002, in order to give the appearance that the licensee, and not the NRC, had identified the drill weakness. Information on the "Drill and Exercise Performance - Performance Indicator Evaluation Form" is material to the NRC as it is used to determine whether weaknesses during an EP drill are identified, evaluated and corrected. The actions of the former EP Manager and former EP Coordinator, both licensee officials, resulted in the submission of materially inaccurate information to both NMC and the NRC, a violation of 10 CFR 50.9. The violation is categorized in accordance with the NRC Enforcement Policy at Severity Level III (EA-05-191). Additionally, the actions of the former EP Manager and former EP Coordinator were deliberate and violated 10 CFR 50.5, "Deliberate Misconduct."
Inspection Report# : 2005017*(pdf)*

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : May 25, 2006