

Point Beach 2

4Q/2006 Plant Inspection Findings

Initiating Events

Significance: SL-III Dec 31, 2006

Identified By: NRC

Item Type: VIO Violation

Failure to Update FSAR With Reactor Head Drop Analysis and Obtain NRC Approval

The inspectors identified an apparent violation for the failure of the licensee in 1983 to incorporate the results of an 1982 analysis of a postulated drop of the reactor vessel head on the vessel into the Final Safety Analysis Report (FSAR). The apparent violation is subject to the NRC's traditional enforcement process because it had the potential for impacting the NRC's ability to perform its regulatory function. After the problem was identified in early 2005, the licensee submitted a revised head drop analysis that the NRC reviewed and subsequently approved; evaluated the Unit 2 replacement vessel head against that analysis; updated its FSAR; and conducted a review to identify other instances where the FSAR may not have been updated.

This finding is considered greater than minor because the failure to update the FSAR as required by 10 CFR 50.71(e) resulted in the licensee not obtaining the necessary review and approval of the 1982 analysis, and in the removal and reinstallation of the original reactor heads from 1983 to 2004 without administrative controls similar to those established for head moves in 2005 and after. Also, the finding is associated with the design control 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. Because findings involving 10 CFR 50.71(e) potentially affect the NRC's ability to perform its regulatory function, and reactor vessel head drop analysis issues are not suitable for Significance Determination Process analysis, this finding is being evaluated using the traditional enforcement process.

In a letter dated January 29, 2007, a Notice of Violation was issued for a Severity Level III violation of 10 CFR 50.71(e). There is no civil penalty.

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

Significance:  Dec 31, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Replacement Reactor Vessel Head Design Deficiencies

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 assure from October 2002 to April 2005 that deviations in weight, a specific value used in analysis of the effects of a postulated accident, of the Unit 2 replacement reactor vessel head and head assembly upgrade package were controlled in accordance with the original design bases. One result of this failure was that the licensee's 10 CFR 50.59 evaluation completed in February 2005 for the replacement head was inadequate. The licensee entered the finding into its corrective action program, and revised head replacement project documents and the station design bases to account for the differences between the Unit 2 replacement vessel head and the original head. In addition, the licensee completed an adequate 10 CFR 50.59 evaluation. These actions were taken prior to the actual lift of the new head that occurred in June 2005.

The inspectors concluded that the finding is greater than minor because it was associated with the design control 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. Consultation with the Region III Senior Reactor Analysts determined that reactor vessel head drop issues were not suitable for the Significance Determination Process analysis. Therefore, this finding has been reviewed by NRC management and is determined to be a Green finding, of very low significance. The inspectors also determined that a primary cause of this finding is related to the cross-cutting area of human performance.

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

Significance:  Dec 31, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Design Control for a Flooding Barrier During a Plant Modification

The inspectors identified a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion III, "Design Control," having very low safety significance for the failure to maintain flooding barriers after drilling holes and installing conduit from the containment facade buildings to the auxiliary building during modification MR 04-013 "Charging Pump Variable Frequency Drive (VFD) Installation." As part of corrective actions, the licensee properly sealed the openings. The issue was entered into the corrective action program.

The finding is greater than minor because it was associated with the design control and flood hazard attributes 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. A flood in the auxiliary building could affect safety-related equipment and result in an upset of plant stability. Although the finding involved the degradation of a flooding barrier, the volume of any potential flooding was judged, based on the size of the hole, to be bounded by the existing internal flooding analysis for the auxiliary building, as well as the licensee's probabilistic risk assessment; hence, the finding screened as very low safety significance. This finding has a cross-cutting aspect in the area of human performance because resources were not provided to ensure accurate and up-to-date work packages for implementation of the modification.

Inspection Report# : [2006013](#) (*pdf*)

Significance:  Dec 31, 2006

Identified By: NRC

Item Type: FIN Finding

Inadequate Contractor Oversight Which Resulted in Damage to a Unit 2 Steam Generator Vent Line

A finding of very low safety significance was self-revealed on November 14, 2006, when unqualified contract crane technicians operated the Unit 2 polar crane and damaged the 'B' steam generator vent line with the main hook of the crane. The reactor was shutdown at the time of the event. As part of corrective actions, the licensee removed authorization for the technicians to operate the crane, ensured necessary procedural controls were implemented, and evaluated the damaged vent line. The issue was entered into the corrective action program. Subsequently, plant engineers concluded that the vent line remained operable, but degraded.

This finding is greater than minor because if left uncorrected it would become a more significant safety concern in that a significant upset of plant stability would have occurred had the crane hook damaged other, safety-related equipment. In addition, the finding is associated with the human 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. Because the transient initiator contributor was main steam vent piping damage, which did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available, the finding is considered to be of very low safety significance. The finding has a cross-cutting aspect in the area of human performance because the licensee's work practices failed to ensure adequate supervisory and management oversight of contractor work activities.

Inspection Report# : [2006013](#) (*pdf*)

Significance:  Dec 31, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Procedural Controls for Manually Operated Breakers Located in Certain Control Panels

A finding and associated non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," having very low safety significance was self-revealed on October 16, 2006, during the out-of-service tagging of a manually operated breaker (MOB) in the Unit 2 control panel. The reactor was shutdown at the time of the event but at normal operating pressure and temperature. During the tagging, an adjacent breaker was inadvertently repositioned resulting in the opening of the pressurizer power-operated relief valve (PORV). About 63 gallons of reactor coolant were

released through the valve to the pressurizer relief tank before operators repositioned the breaker and the valve re-closed. The released was categorized as a Notification of Unusual Event. The mispositioning was caused by a lack of adequate procedural controls for working in the control panels and a lack of knowledge by personnel as to the minimal force required to open the MOBs. As part of corrective actions, the licensee replaced or protected the most risk significant MOBs, trained workers on the operating sensitivity of the breakers, and established controls governing work in the control panels around sensitive equipment. The issue was entered into the corrective action program and the licensee performed a root cause evaluation for this event.

This finding is greater than minor because if left uncorrected it would become a more significant safety concern in that the inadvertent re-positioning of other similar breakers in the main control room control panels would significantly upset plant stability. In addition, the finding is associated with the procedure quality and human 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. Because attributes such as core heat removal, inventory control, power availability, containment control, and reactivity guidelines were met, the finding screened as (Green) having very low safety significance. The finding has a cross-cutting aspect in the area of human performance because the licensee's control of work failed to incorporate into planned work activities job site conditions, including environmental conditions which may impact human performance, and the human-system interface, that is, the operator interface with the breakers in the close confines of the control panels.

Inspection Report# : [2006013](#) (*pdf*)

Significance:  Jun 30, 2006

Identified By: NRC

Item Type: FIN Finding

Failure to Take Adequate Actions for Potential High Wind Conditions

A finding of very low safety significance was identified by the inspectors for failure to control loose materials in the protected area in the vicinity of the main and auxiliary transformers. No violation of NRC requirements occurred. Failure to take action to remove loose material in the protected area has problem identification and resolution cross-cutting aspects involving failure of assigned personnel to identify and correct potential tornado missiles that could be generated from such loose material in the vicinity of the main and auxiliary transformers. Once identified, the licensee initiated a corrective action program document to develop a surveillance procedure to remove loose materials before summer months when potential adverse weather was possible, performed walkdowns of the affected areas, and removed material which could become a potential hazard in high velocity winds and tornadoes.

The inspectors determined that the finding was more than minor because, if left uncorrected, the loose items adjacent to the main and auxiliary transformers would become a more significant safety concern. The issue is of very low safety significance because the finding did not contribute to the likelihood of a primary or secondary system loss of coolant accident initiator; the finding did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available; and the finding did not increase the likelihood of a fire or internal or external flooding. The issue is not considered a violation of regulatory requirements because the finding did not affect safety-related structures, systems, or components.

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

Mitigating Systems

Significance:  Dec 15, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Inadequate Procedure for Identifying Degraded Piping

The inspectors identified a finding of very low safety significance involving areas of service water piping where microbiologically induced corrosion was identified but the wall thicknesses of the pipe in those areas were not measured. An NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," was associated with this finding for failure to prescribe directions to ensure all areas of degradation identified were characterized. The licensee

performed radiographic examination of safety-related piping in the service water system to identify and determine the extent of degradation and to take appropriate corrective action to maintain operability. However, the radiographic technique used did not provide information on the most severe (deepest) degradation in the section of pipe examined. Without this information, the licensee's evaluation of the piping integrity, actions to perform inspections of additional pipe segments, and actions to perform more frequent inspection on the same section could be inappropriate. The licensee entered this finding into its corrective action program for evaluation.

This finding is greater than minor because it was associated with the procedure quality 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 procedure did not require adequate characterization of the extent of microbiologically induced corrosion (MIC) in service water (SW) piping to ensure that MIC degradation would not result in failure of the SW piping pressure boundary. Because there were no active through-wall leaks in this system and no known degradation which exceeded the Code minimum wall thickness, the finding is of very low safety significance.

Inspection Report# : [2006015](#) (*pdf*)

Significance:  Dec 15, 2006

Identified By: NRC

Item Type: FIN Finding

Inadequate Extent-of-Condition Review

The inspectors identified a finding of very low safety significance with no associated violation for an inadequate extent-of-condition review for boric acid leakage found in the last quarter of 2005 on the safety injection-850 valves (containment recirculation sump isolation valves). During the current inspection, the inspectors identified boric acid leakage on other valves that the licensee had not evaluated. The licensee entered this finding into its corrective action program.

This finding is greater than minor because failing to evaluate boric acid leakage would lead to component failure and had the potential to become a more significant safety concern. Because no safety function was lost, no Technical Specification train or maintenance rule safety function was lost, and there was no external event concerns. The finding is of very low safety significance. The inspectors also determined that a primary cause of this finding was related to the cross-cutting area of PI&R within the component of the corrective action program and the aspect of thorough evaluation of problems.

Inspection Report# : [2006015](#) (*pdf*)

Significance:  Sep 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Emergency Core Cooling System Sump Flow Design Control Deficiencies

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance when the licensee did not correctly interpret the results of calculations of the head available to drive flow across the emergency core cooling system (ECCS) sump screens and also did not identify and did not analyze for a postulated sump plugging condition as it affected net positive suction head (NPSH) for the residual heat removal (RHR) pumps. As a result, the licensee failed to maintain design margins for ECCS sump flow. The licensee completed a causal evaluation and developed corrective actions, including the implementation of compensatory measures to ensure sump outlet flow was limited to eliminate flashing and to ensure that adequate NSPH was available.

The inspectors concluded 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). This design control deficiency was confirmed not to result in loss of operability per "Part 9900, Technical Guidance, Operability Determination Process for Operability and Functional Assessment." Hence, the finding screened as of very low risk significance. The inspectors also determined that a primary cause of this finding is related to the cross-cutting area of human performance. The lack of engineering rigor associated with review of this calculation involved the cross-cutting component of resources in that personnel, procedures, and supervisory resources were not adequate to assure nuclear safety, and the cross-cutting aspect of maintaining long-term plant safety by maintenance of design margins specified in calculations. The licensee did not maintain adequate NPSH margin or preclude air intrusion, as the ECCS sump flow parameter (RHR pump flow during phase 2 recirculation following a postulated loss of coolant accident was not appropriately limited in the emergency

operating procedures.

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

Significance:  Sep 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Containment Coatings Program Weaknesses

The inspectors identified a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance when the licensee failed to assure that the limits of unqualified and degraded coatings within the containment sump zone of influence, as documented in the 1999 analyses of record, were correctly translated into specifications and plant procedures and that deviations since 1999 were appropriately controlled. Subsequently, the inspectors identified that the licensee had exceeded the design analysis limits associated with the quantities of degraded and unqualified coatings in containment. The licensee completed a causal evaluation and developed corrective actions, including the removal of degraded coatings and the revision of site procedures to include limits for degraded and unqualified coatings

The inspectors concluded 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). This design control deficiency was confirmed not to result in a loss of operability per "Part 9900, Technical Guidance, Operability Determination Process for Operability and Functional Assessment." Hence, the finding screened of as very low safety significance. The inspectors also determined that a primary cause of this finding is related to the cross-cutting area of human performance. The failure to appropriately maintain the amount of unqualified and degraded coatings in accordance with the analyses of record involved the cross-cutting component of resources for the failure to ensure that personnel, procedures, and supervisory resources were adequate to assure nuclear safety, and the cross-cutting aspect of maintaining long-term plant safety by maintenance of design margins specified in calculations supporting the design basis accidents.

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

Significance:  Sep 29, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Potential Common Mode Failure Mechanism Due to Overdutied Circuit Breakers

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance involving electrical system short circuit studies. Specifically, the inspectors identified that the licensee failed to identify or analyze the potential consequences of faults on non-seismically protected circuits, or the potential for degradation of redundant trains due to a fault on a non-safety circuit that is routed in raceways associated with both redundant trains.

The inspectors determined that the finding was more than minor because the failure to identify and analyze unacceptable consequences of overdutied circuit breakers could impact their safety function. In the evaluation, The inspectors determined that the finding screened as Green because, as an immediate corrective action for this issue, the licensee performed an operability evaluation that determined that despite the failure to properly analyze the consequences of overdutied circuit breakers, there was sufficient cable impedance to assure that loss of redundant buses due to postulated faults would not occur.

Inspection Report# : [2006006](#) (*pdf*)

Significance:  Sep 29, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Non-Conservative EDG Loading Calculation

The inspectors identified a finding of very low safety significance associated with a violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control." Specifically, Emergency Diesel Generator (EDG) Room exhaust fans, EDG diesel air start compressors, and additional loading caused by the EDG operating at frequencies above 60 Hertz (Hz) were not considered in the licensee's EDG loading calculation. The licensee determined that this issue was not an operability

concern, because these additional loads did not cause the EDG to be overloaded during design basis accident conditions.

The issue was more than minor because the failure to identify loads that would be supplied during an accident condition could result in eventual overloading of the EDG. The finding screened as having very low significance (Green) because the inspectors answered “no” to all five questions under the Mitigating Systems Cornerstone column of the Phase 1 worksheet. After performing a calculation to support operability, it was determined that there were conservatisms and other unnecessary loads in the EDG loading calculation that served to counteract the non-conservatisms that were identified by the inspection team resulting in the EDG not exceeding any vendor load limitations

Inspection Report# : [2006006](#) (*pdf*)

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Significance: Sep 29, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Lack of a 4 Hour SBO Coping Duration Heat-Up Calculation for the AFP Rooms

The inspectors identified a finding of very low safety significance associated with a violation of 10 CFR 50.63, “Loss of all Alternating Current Power.” Specifically, the licensee never performed a calculation that evaluated the effects of loss of ventilation on the Auxiliary Feedwater Pump (AFP) room during a Station Blackout (SBO). The AFP rooms, which each house a turbine driven AFP (TDAFP), had not been evaluated for the heatup that would occur during the SBO 4 hour coping duration. In response to the inspector’s concerns, the licensee performed informal calculations to provide reasonable assurance that the heatup in the room during an SBO would not adversely affect the equipment.

The issue was more than minor because the licensee had not maintained a heatup calculation for the TDAFP room that assessed the effects of heatup on safe shutdown equipment as required for station blackout. The finding screened as having very low significance (Green) because the inspectors answered “no” to all five questions under the Mitigating Systems Cornerstone column of the Phase 1 worksheet.

Inspection Report# : [2006006](#) (*pdf*)

G

Significance: Sep 29, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Condensate Storage Tank Vortexing Calculation Did Not Bound Station Blackout Scenario

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” having very low safety significance (Green) involving the useable volume in the condensate storage tank (CST). Specifically, the inspectors identified that the licensee’s calculation to show that there would not be vortexing in the CST was not bounding for the station blackout scenario, which was the basis for the CST volume stated in the Technical Specifications. The licensee’s corrective actions included verifying the CST contained a sufficient volume to prevent vortexing in support of a station blackout scenario, and initiated actions to perform a formal calculation and to established an administrative limit to increase the available margin from the Technical Specification limit.

The finding was more than minor because the failure to adequately evaluate the CST vortex limit could have led to an insufficient useable volume in the CST preventing the auxiliary feedwater system from performing its function during a station blackout scenario and could have affected the mitigating systems cornerstone objective of design control. The finding was of very low safety significance based on the results of the licensee’s analysis and screened as Green using the SDP Phase 1 screening worksheet.

Inspection Report# : [2006006](#) (*pdf*)

G

Significance: Sep 29, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Unverified Fouling Factor Assumption for Containment Fan Coolers

The team identified a Green non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XI, Test Control, relating to the safety-related Containment Fan Coolers (CFC) for not assuring that the fouling factor inside the tubes was not maintained above the minimum specified analytical limit to prevent boiling of Service Water inside the coolers' tubes during accident conditions. Specifically, the licensee visually inspected the coolers and did not establish a specific criterion

for accepting a fouling factor not lower than the established minimum of 0.0003 ft²-hr-°F/Btu to prevent boiling inside the tubes.

This finding was greater than minor because the current method of testing the fan coolers did not demonstrate that the existing fouling was such to prevent boiling. The finding screened as Green because, as an immediate corrective action, the licensee demonstrated through an evaluation that if boiling occurred, it will occur first in the upper tubes before the condition of the water in the lower tubes will cause boiling. This would result in excess service water flow to the lower tubes such that the fan coolers could still perform their safety function.

Inspection Report# : [2006006](#) (*pdf*)

Significance:  Sep 29, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Reactor Water Storage Tank/Spent Fuel Pool Pipe Support Calculation Deficiencies

The team identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance involving a modification that upgraded the Reactor Water Storage Tank/Spent Fuel Pool recirculation loop small bore piping and the Units 1 and 2 Reactor Water Storage Tank cross connect branches from the loop to Seismic Class I piping. Specifically, the inspection team found numerous non-conservative technical errors and calculation omissions in seismic design basis analysis calculations that supported this modification. This issue was entered into the licensee's corrective action system.

The issue was more than minor because the presence of these non-conservative calculational deficiencies resulted in seismic design basis analysis calculations to be re-performed to assure that the pipe supports would function as required during the design basis seismic event. The finding screened as having very low significance (Green) because the inspectors answered "no" to all five questions under the Mitigating Systems Cornerstone column of the Phase 1 worksheet. Specifically, after re-performing the calculations for the supports that were called into question by the inspection team, the licensee was able to show that enough margin was still available to support the loads that would be seen during the design basis seismic event.

Inspection Report# : [2006006](#) (*pdf*)

Significance:  Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Perform a 50.59 Evaluation for Compensatory Measures Described in Operability Recommendation

The inspectors identified a Severity Level IV, Non-Cited Violation of 10 CFR 50.59(d)(1) for the licensee's failure to perform an evaluation for compensatory actions taken to maintain the closed function of the emergency core cooling system (ECCS) containment sump isolation valves. Specifically, the licensee established compensatory actions in the event remote operation from the control room of the containment sump recirculation isolation valves (1SI-850A, 1SI-850B, 2SI-850A and 2SI-850B) was ineffective during plant minimum or degraded voltage conditions. The licensee had not completed a causal evaluation by the end of the inspection period; however, remedial corrective actions to address certain aspects of this issue had been implemented.

Because violations of 10 CFR 50.59 affect the NRC's ability to perform its regulatory function, this finding was evaluated using the traditional enforcement process. In accordance with the NRC Enforcement Policy, this finding is determined to be more than minor because there was a reasonable likelihood that the change requiring the 10 CFR 50.59 evaluation would require NRC review and approval prior to implementation. This finding has been reviewed by NRC management and is determined to be a Green finding, of very low safety significance.

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

Significance:  Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Maintain and Implement Adequate Procedures for Control Room Ventilation Testing

The inspectors identified a Non-Cited Violation of Technical Specification 5.4.1 for the failure to have adequately

established, implemented, and maintained procedures for Technical Specification Surveillance testing of the control room emergency filtration system. The inspectors observed the performance of the 18-month surveillance for testing of the control room emergency filtration system, per procedure HPIP-115.4. The inspectors noted that the visual inspection, charcoal sampling, collection of the fan flow data, and the compilation/evaluation of fan flow measurement data were conducted but not as specified in the procedure.

The inspectors also determined that a primary cause of this finding was related to the cross-cutting area of problem identification and resolution. The last performance of this test, conducted 18 months prior, revealed numerous performance deficiencies, which included an inadequate procedure and the failure to properly implement portions of the procedure. However, the corrective actions taken for the deficiencies identified during the last performance failed to correct the procedure maintenance and implementation issues associated with procedure HPIP-11.54. The licensee had not completed a causal evaluation by the end of the inspection period; however, the licensee had implemented remedial corrective actions to address certain aspects of this issue.

The inspectors concluded that the finding is greater than minor because it is associated with the procedure quality attribute for maintenance and testing (pre-event) procedures 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 evaluated this finding using the significance determination process and determined that this finding is a licensee performance deficiency of very low risk significance (Green).

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

Significance:  Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Update and Maintain the Final Safety Analysis Report as Required by 10 CFR 50.71(e)

The inspectors identified a Severity Level IV, Non-Cited Violation of 10 CFR Part 50.71(e) for the self-revealed failure to update the Final Safety Analysis Report (FSAR) to assure that the information in the report was the latest information developed and contained all changes necessary to reflect information and analyses submitted to the NRC. This finding was self-revealed following the inspectors' identification of numerous FSAR inaccuracies concerning licensee responses to generic docketed correspondence to the commission. This was further corroborated by a follow-up licensee self-assessment and streaming analysis conducted by the licensee. As a result, the licensee initiated a root cause evaluation which also identified the failure to update the FSAR in response to licensee credited actions, new NRC regulations, programmatic licensee commitments, and certain license amendment safety evaluation reports.

The inspectors determined that a primary cause of the finding was related to the cross-cutting element of human performance due to the failure to have processes and procedures to maintain the current licensing basis and a lack of knowledge by plant staff of regulatory requirements. The licensee has taken immediate remedial corrective actions to address several issues, including the development of a site policy and procedures which defined the current licensing basis. In addition, the licensee has planned comprehensive corrective actions, including a detailed project scope to update the FSAR.

Because violations of 10 CFR 50.71(e) affect the NRC's ability to perform its regulatory function, this finding was evaluated using the traditional enforcement process. In accordance with the NRC Enforcement Policy, this finding is determined to be more than minor because a failure to update the FSAR could have had a material impact on safety or licensed activities. This finding has been reviewed by NRC management and is determined to be a Green finding, of very low safety significance.

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

Significance:  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*)

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Significance: 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*)

G

Significance: 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: R 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 the 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).

As indicated in a letter to the licensee dated November 30, 2006 (ADAMS Accession Number ML063350059) closing out Confirmatory Action Letter 3-04-001, Revision 1, the NRC has completed its inspection followup of this issue, which had been categorized as a Red inspection finding for Unit 2.

Inspection Report# : [2002015](#) (*pdf*)

Inspection Report# : [2006013](#) (*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 identify 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.

As indicated in a letter to the licensee dated November 30, 2006 (ADAMS Accession Number ML063350059) closing out Confirmatory Action Letter 3-04-001, Revision 1, the NRC has completed its inspection followup of this issue, which had been categorized as a Red inspection finding for Units 1 and 2.

Inspection Report# : [2001017](#) (*pdf*)

Inspection Report# : [2003003](#) (*pdf*)

Inspection Report# : [2006013](#) (*pdf*)

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Significance:  Dec 15, 2006

Identified By: NRC

Item Type: FIN Finding

Untimely Completion of Three RCEs Involving Radiation Protection

The inspectors identified a finding of very low safety significance for the licensee's untimely completion of three root cause evaluations in the radiation protection area. The 3 evaluations were completed in 8-9 months instead of the 30 days stated in the corrective action program administrative procedure. Several due date extensions had been approved by station management early in the conduct of the evaluations and they eventually went overdue before they were completed. No violation of NRC requirements was identified. The licensee entered this finding into its corrective action program for evaluation.

The inspectors concluded that the issue of allowing the completion time for the three root cause evaluations to exceed the 30-day limit in the procedure is a finding that if left uncorrected would become a more significant safety concern, and thus, is a finding that is greater than minor. Because the finding did not involve an overexposure, a substantial potential for an overexposure, and a compromise of the ability to assess dose, it is of very low safety significance. The inspectors also determined that a primary cause of this finding was related to the cross-cutting area of human performance within the component of work control and the aspect of coordinating work activities.

Inspection Report# : [2006015](#) (*pdf*)

Public Radiation Safety

Significance:  Sep 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Conditional Release of Radioactively Contaminated Material, a Check Source Mechanism

A self-revealed finding of very low safety significance that was a non-cited violation of 10 CFR 20.1501 was identified for the licensee's failure to perform a survey prior to unconditionally releasing a radioactively contaminated Check Source Mechanism (CSM-1) from the plant. Corrective actions taken by the licensee for this finding included updating the model work orders to include radiological controls for secondary systems.

The issue is greater than minor because it was associated with the program/process attribute of the Public Radiation Safety Cornerstone and affected the cornerstone objective to ensure adequate protection of public health and safety from exposure to radioactive materials released into the public domain as a result of routine civilian nuclear reactor operation. The inspectors determined that the finding did not involve a radioactive transportation shipment, that public exposure did not exceed 0.005 rem, and there were less than five such occurrences. Consequently, the inspectors concluded that this finding was of very low safety significance.

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

Physical Protection

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

Miscellaneous

Significance: N/A Dec 31, 2006

Identified By: NRC

Item Type: AV Apparent Violation

NRC to Review Items in Confirmatory Order Dated January 3, 2007, for Employment Discrimination Settlement

In a letter dated January 3, 2007 (ADAMS Accession Number ML063630336), the NRC issued a Confirmatory Order to the licensee as part of a settlement agreement through the NRC's Alternative Dispute Resolution (ADR) process. The NRC investigated an alleged violation of 10 CFR 50.7, "Employee Protection," to determine whether a senior reactor operator was the subject of retaliation for raising a nuclear safety concern in the licensee's corrective action program. This issue was resolved through the NRC's ADR program and will be tracked as Apparent Violation (AV) 05000266/2006013-05; 05000301/2006013-05 pending NRC review of the licensee's completion of items specified in the Confirmatory Order.

Inspection Report# : [2006013](#) (*pdf*)

Significance: N/A Dec 15, 2006

Identified By: NRC

Item Type: FIN Finding

Biennial Problem Identification and Resolution Inspection

The team concluded that the licensee's program for the identification and resolutions of problems was functioning appropriately and had improved since the previous NRC PI&R expanded team inspection conducted in late 2005. The licensee was identifying plant problems at an appropriately low level, although, the inspectors noted that the threshold for entering wall thinning issues into the program was high relative to the level at which other issues were entered. The inspectors identified three findings in the area of prioritization and evaluation of issues: one for an inadequate procedure for inspection of service water pipe, one for an inadequate extent-of-condition review for boric acid corrosion on valves; and one for untimely completion of three root cause evaluations. In the area of effectiveness of corrective actions, the inspectors concluded that a licensee-developed training course on engineer rigor was well developed and implemented and that corrective actions for three previous issues may need additional management attention to ensure timely completion. The licensee's use of operating experience and self-assessments and audits was found to be appropriate. From interviews conducted during this inspection, the inspectors concluded that workers at Point Beach felt free to input nuclear safety findings into the corrective action program.

Inspection Report# : [2006015](#) (*pdf*)

G**Significance:** Jun 30, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Perform a 50.59 Evaluation of Increased Design Loads on the Auxiliary Building

The inspectors identified a Severity Level IV, Non-Cited Violation of 10 CFR 50.59(d)(1) for failure to perform a written evaluation of increased design loads on the crane and the auxiliary building. The licensee performed a calculation to demonstrate the capability of the auxiliary building to hold a single-failure-proof crane with a 125-ton load during a seismic event. After the inspectors identified that no written evaluation has been performed, the licensee completed the evaluation and concluded that a license amendment was not required as a result of increased design loads.

Because violations of 10 CFR 50.59 affect the NRC's ability to perform its regulatory function, this finding was evaluated using the traditional enforcement process. In accordance with the NRC Enforcement Policy, this finding is determined to be more than minor because there was a reasonable likelihood that the change requiring the 10 CFR 50.59 evaluation would require NRC review and approval prior to implementation. This finding has been reviewed by NRC management and is determined to be a Green finding, of very low safety significance.

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

Last modified : March 01, 2007