

## Point Beach 1

### 3Q/2004 Plant Inspection Findings

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#### Initiating Events

**G****Significance:** Jun 30, 2004

Identified By: NRC

Item Type: FIN Finding

**Potential Loss of Hot Leg Vent Path During Nozzle Dam Installation**

The inspectors identified a finding associated with installing steam generator nozzle dams and establishing a hot leg vent path during a portion of the Unit 1 cycle 28 refueling outage (U1R28). The primary cause of this finding was related to the cross-cutting area of human performance, involving the decision by several licensed and experienced personnel to allow nozzle dam installation to commence prior to establishment of a vent path through the pressurizer manway.

The finding is considered more than minor because it affected: (1) the Reactor Safety Initiating Events Cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown operations, and (2) the human performance attribute of the Initiating Events Cornerstone. The finding was considered to be of very low safety significance and did not require quantitative assessment since: (1) conditions meeting a loss of control were not met in that no inadvertent change in reactor coolant system temperature or change in reactor vessel level actually occurred, and (2) the licensee had maintained adequate mitigation capability for the existing plant conditions. No violation of regulatory requirements occurred because: (1) the actual sequence of events showed that all four nozzle dams had not been completely installed while the pressurizer manway was still in place, and (2) an engineering analysis showed that an adequate hot leg vent path was available while one of the 'A' steam generator hot leg nozzle dam side pieces was not installed. The licensee has entered this finding into its corrective action (CA) program.

Inspection Report# : [2004003\(pdf\)](#)**G****Significance:** Jun 30, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

**Loss of Transient Combustible Control in the Containment and Turbine Buildings During a Unit 1 Refueling Outage**

The inspectors identified an NCV of 10 CFR 50.48(a)(2)(i) having very low safety significance when transient combustibles were stored in the Unit 1 containment building and the turbine building without required administrative controls. The finding also affected the cross-cutting area of human performance in that the licensee failed to identify the transient combustible materials during tours required by the Fire Protection Evaluation Report.

The inspectors concluded that the finding is more than minor because it affected the Reactor Safety Initiating Events Cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown, specifically protection against external factors (fire). The inspectors determined that the finding was of very low safety significance (Green), since the issue was assigned a low degradation rating and the quantity of transient combustibles had been bounded by the analysis contained in the Fire Hazards Analysis Report. The licensee has entered this finding into its corrective action (CA) program.

Inspection Report# : [2004003\(pdf\)](#)**G****Significance:** Dec 31, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate corrective actions for control of transient combustibles**

The inspectors identified a Non-Cited Violation involving a finding of very low safety significance concerning the licensee's failure to take effective corrective actions to address the control of transient combustibles. Specifically, the licensee failed to correctly determine the cause (i.e., transient combustibles) of exceeding an NRC Safety Evaluation Report fire loading value for a fire zone. As a result of ineffective corrective actions, the inspectors identified additional instances in which transient combustibles were not appropriately evaluated as required. The primary cause of this finding was related to the cross-cutting area of problem identification and resolution. Despite the escalation of fire loading issues by the licensee's quality assurance organization in October 2002, combustible materials were reintroduced into the same fire zone without prior evaluation by November 2003.

This finding was more than minor because the finding, if uncorrected, could become a more significant safety concern and affect the Initiating Events cornerstone by increasing the likelihood or severity of fire. The finding was of very low safety significance because no fire protection features were affected and no instances were observed where the fire loading could cause either a fire barrier or an installed suppression system to be overwhelmed. This issue was a violation of a license condition which, by reference, invoked the licensee's Fire Protection Evaluation Report (FPER), which required conditions adverse to fire protection, such as uncontrolled combustible material, be promptly identified,

reported, and corrected. The FPER also required that in the case of significant or repetitive conditions adverse to fire protection, the cause of the conditions is to be determined and analyzed and prompt corrective actions taken to preclude recurrence.

Inspection Report# : [2003009\(pdf\)](#)

**Significance:** SL-IV Dec 22, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Perform an Adequate Safety Evaluation for Changes to the Plant as Described in the USAR**

Description

On October 16, 2001, the licensee completed Safety Evaluation (SE) 2001-0057. This safety evaluation deleted Technical Requirements Manual (TRM) Surveillance Requirement TSR 3.5.1.3, which required that the licensee verify, every 92 days, that the "charging pumps develop required flow rate, as specified by the Inservice Testing [IST] Program." Because the TRM is part of the plant USAR, the performance of a safety evaluation was required.

In the safety evaluation, the licensee justified the deletion of the requirement by stating, "Based on the fact that the PBNP Charging Pumps are not credited with an active safety function that would require IST Program testing, the Charging Pump IST surveillance requirement need not be carried over to the TRM." The reasoning for the change was entirely based upon the charging pumps having no safety function. While this appeared to be adequate justification to delete the IST requirement for the pumps, it did not justify the deletion of the TRM Surveillance Requirement. As stated in the PBNP Bases for TRM TLCO 3.5.1, the function of the charging pumps in support of the Chemical and Volume Control System (CVCS) is described as follows, "The amount of boric acid injection must be sufficient to compensate for the addition of positive reactivity from the decay of xenon after a reactor trip from full power in order to maintain the required shutdown margin. This can be accomplished through the operation of one charging pump taking suction from the RWST." TSR 3.5.1.3 measured the flow rate to ensure that the charging pumps could support this function. When TSR 3.5.1.3 was deleted, this function was not evaluated in the safety evaluation. Consequently, the discussion, as presented in SE 2001-0057, only evaluated the removal of the IST requirements for the charging pumps, but did not evaluate the effects of removing the TRM Surveillance Requirement.

The inspector determined that this was a violation of 10 CFR 50.59 in that the licensee did not provide bases that the deletion of TSR 3.5.1.3 was acceptable without a license amendment. However, even though TSR 3.5.1.3 had been deleted, the licensee had still been performing a quarterly flow rate test of the charging pumps for the purpose of testing the charging pump discharge check valves. The inspectors determined that the flow rate measured in this quarterly test was sufficient to meet the requirements in TSR 3.5.1.3.

Analysis

Because violations of 10 CFR 50.59 are considered to be violations that potentially impede or impact the regulatory process, they are dispositioned using the traditional enforcement process instead of the SDP. In this case, the licensee's failure to perform an adequate safety evaluation in accordance with 10 CFR 50.59 resulted in a TRM Surveillance Requirement, TSR 3.5.1.3, being removed inappropriately.

This finding is more than minor because if left uncorrected, the finding would become a more significant safety concern. However, based upon the inspector's review, it was determined that the licensee's failure to provide the required basis for the 50.59 safety evaluation was an issue of very low safety significance. This was based upon the inspector determining that the measured quarterly charging pump flow rate for the discharge check valves test was sufficient to meet the requirements of the deleted TRM Surveillance Requirement. Therefore, since this issue was determined to be of very low safety significance, this finding was considered to be a Green finding.

Enforcement

10 CFR 50.59(d)(1) states, in part, that the licensee shall maintain records of changes in the facility, of changes in procedures, and of tests and experiments. These records must include a written evaluation which provides the bases for the determination that the change, test, or experiment does not require a license amendment.

Contrary to the above, in their safety evaluation, SE 2001-0057, the licensee failed to provide a basis for the determination that the deletion of the TRM Surveillance Requirement, part of the plant's USAR, was acceptable without a license amendment. The results of this violation were determined to be of very low safety significance; therefore, this violation of the requirements in 10 CFR 50.59 was classified as a Severity Level IV Violation. However, because this non-willful violation was non-repetitive, and was captured in the licensee's corrective action program (CAP052416), it is considered a Non-Cited Violation (NCV 50-266, 50-301/03-10-01 (DRS)) consistent with VI.A.1 of the NRC Enforcement Policy.

Inspection Report# : [2003010\(pdf\)](#)

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## Mitigating Systems

**G**

**Significance:** G Sep 30, 2004

Identified By: NRC

Item Type: FIN Finding

**Unit 1 Residual Heat Removal Heat Exchanger Bypass Valve Drifts Open While in Automatic**

The inspectors identified a workaround regarding the operation of the Unit 1 residual heat removal (RHR) system heat exchanger bypass flow control valve in automatic mode during a shutdown loss-of-coolant-accident (LOCA). The primary cause of this finding was related to the cross-cutting area of problem identification and resolution in two respects. First, the initial extent-of-condition review did not consider the impact of the issue on shutdown plant operations. Second, following initial instrumentation and control (I&C) troubleshooting efforts, a corrective action item was not assigned to operations personnel to evaluate the issue as a potential operator workaround (OWA). This contributed to a 3-month delay in completing the evaluation.

The finding is greater than minor because it affected the equipment performance attribute of the Reactor Safety Mitigating Systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events. The finding was considered to be of very low safety significance (Green) because it did not degrade short term (safety injection (SI)) decay heat removal capability or reactivity control; result in a design or qualification deficiency or an actual loss of safety function; or involve internal or external initiating events. The finding did not involve a violation of regulatory requirements. The licensee has entered this finding into its corrective action program. In addition, the finding was reviewed by the licensee's Operator Workaround Committee and the Committee classified the problem as an operator challenge in accordance with site procedures.

Inspection Report# : [2004006\(pdf\)](#)

**G**

**Significance:** Jul 16, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Test Service Water Headers**

The inspectors identified a Non-Cited Violation of 10 CFR 50.55a(g)(4) and 10 CFR 50.55a(g)(5)(iv) associated with failure to perform testing of the buried service water header piping in accordance with the American Society of Mechanical Engineers Code Section XI requirements. The licensee's corrective actions included verifying that quarterly system flow tests provided basis for service water header operability.

This finding was more than minor because it affected the Mitigating Systems Cornerstone objective of equipment reliability and if left uncorrected, could have allowed undetected through-wall flaws to develop in the header piping. These flaws could then continue to grow in size until leakage from the buried headers degraded system operation or if sufficient general corrosion occurs, a gross rupture or collapse of the piping sections could occur. The finding is of very low safety significance and screened as Green using the SDP Phase 1 screening worksheet.

Inspection Report# : [2004004\(pdf\)](#)

**G**

**Significance:** Jul 16, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

**Non-Code Repair to Valve SW 0322**

The inspectors identified a Non-Cited Violation of 10 CFR 50.55a(g)(4) associated with failure to conduct non-destructive examinations and repair of valve SW 0322 in accordance with American Society of Mechanical Engineers Code Section XI requirements. The licensee's corrective actions included replacement of the valve during the next opportunity.

This finding was more than minor because it affected the Mitigating Systems Cornerstone objective of equipment reliability and if left uncorrected, could have allowed unacceptable base metal flaws to remain in service. Additionally, the failure to heat treat the weld repairs could have resulted in high welding residual stresses and untempered martensite formation. Untempered martensite is a hard brittle phase of steel (e.g., not flaw tolerant) and can serve to allow rapid crack propagation that could jeopardize the pressure retaining function of the valve body. The finding is of very low safety significance and screened as Green using the SDP Phase 1 screening worksheet.

Inspection Report# : [2004004\(pdf\)](#)

**G**

**Significance:** Jul 16, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

**Non-Code Repair to Valve SW 32C and SW 32F**

The inspectors identified a Non-Cited Violation of 10 CFR 50.55a(g)(4) associated with failure to implement the American Society of Mechanical Engineers Code Section XI examinations and repair requirements for service water pump discharge check valves SW 32C and SW 32F. The licensee's corrective actions included verifying that quarterly surveillance tests verified check valve operability.

This finding was more than minor because it affected the Mitigating Systems Cornerstone objective of equipment reliability and if left uncorrected, the failure to perform the required examinations could have allowed unacceptable base metal flaws to remain in-service. Additionally, the failure to select and follow a repair Code or standard may have resulted in inadequate post weld heat treatments for the weld repairs that could result in high welding residual stresses and untempered martensite formation. Untempered martensite is a hard brittle phase of steel (e.g., not flaw tolerant) and can serve to allow rapid crack propagation which could jeopardize the pressure retaining function of these valve disks. The finding is of very low safety significance and screened as Green using the SDP Phase 1 screening worksheet.

Inspection Report# : [2004004\(pdf\)](#)

**G****Significance:** Jul 16, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Correctly Translate Condensate Storage Tank Temperature Limits into Procedures and Instructions**

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," in that, the design bases for the maximum Condensate Storage Tank (CST) temperature was not correctly translated into procedures and instructions. Specifically, the Main Steam Line Break (MSLB) Containment Integrity Analysis assumed a maximum value of 100 F for the temperature of the water in the CST, while operations procedures allowed a maximum of 120 F for the CST temperature. This finding applies to both units. The licensee's corrective actions included procedural changes to reflect the correct temperature limit.

This finding was more than minor because an evaluation was required to ensure that accident analysis requirements were met, since the CST was heated up to greater than the maximum analysis value of 100 F during unit startup/shutdown operations with the CST aligned to the operating unit. The finding is of very low safety significance and screened as Green using the SDP Phase 1 screening worksheet.

Inspection Report# : [2004004\(pdf\)](#)**G****Significance:** Jul 16, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Periodically Verify Position of Valves in the SW System**

The inspectors identified a Non-Cited Violation of Technical Specification Surveillance Requirements SR 3.7.8.1 and SR 3.6.3.2 associated with the periodic verification of the position of valves and flanges in the service water (SW) system flow paths servicing safety related equipment and in lines associated with containment isolation. Specifically, the licensee did not verify that approximately 100 valves in the SW system flow path servicing safety related equipment that were not locked, sealed, or otherwise secured in position, were in the correct position every 31 days while the Units were in Mode 1, 2, 3, or 4. In addition, the licensee did not verify that 12 containment isolation manual valves were closed and two pipe fittings associated with containment isolation were in place every 31 days while the Units were in Mode 1, 2, 3, or 4. This finding applies to both units. The licensee's corrective actions included locking the appropriate valves and procedural changes.

This finding was more than minor because it was, for the most part, associated with the Mitigating Systems attribute of Configuration Control, which affected the Mitigating Systems Cornerstone objective of ensuring the availability and reliability of the service water (SW) system to respond to initiating events to prevent undesirable consequences. The finding is of very low safety significance and screened as Green using the SDP Phase 1 screening worksheet.

Inspection Report# : [2004004\(pdf\)](#)**G****Significance:** Jul 16, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Translate Original Design Requirements for the 480 Vac System**

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the licensee's failure to adequately translate original design requirements for the 480 Vac system into specifications during procurement of new and replacement equipment. The original specifications for equipment such as motors and cables identified the intended service as suitable for a 480 Vac ungrounded system. Specifications for replacement motors did not specify the intended service as an ungrounded system. The licensee's corrective actions included a verification that the identified equipment that did not specify use in a 480 Vac ungrounded system could withstand the overvoltage conditions that can occur on ungrounded systems.

This finding was more than minor because it involved the design control attribute of the Mitigating Systems cornerstone and affected the objective of ensuring the capability of the safety related 480 Vac system in response to initiating events to prevent undesirable consequences. Specifically, the failure to specify the correct service conditions may have resulted in motors being supplied without the enhanced insulation systems required to withstand the overvoltage conditions that can occur on ungrounded systems when a single line to ground occurs. The finding is of very low safety significance and screened as Green using the SDP Phase 1 screening worksheet.

Inspection Report# : [2004004\(pdf\)](#)**G****Significance:** Jun 30, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

**Substitution of Weld Surface Examinations for Volumetric Examinations**

The inspectors identified an NCV of 10 CFR 50.55a(a)(3)(i) for the licensee's incorrect substitution of weld surface examinations into the risk-based portion of the Inservice Inspection Program, which required volumetric weld examinations.

This finding is greater than minor because it affected the Mitigating Systems Cornerstone objective of equipment reliability and, if left uncorrected, could allow unacceptable piping system weld flaws to remain in-service and render safety-related systems inoperable. The finding is of very low safety significance because the licensee had sufficient time left in the Code interval to perform the required number of volumetric

examinations of piping welds in the affected risk-based category during future Unit 1 outages. The licensee has entered this finding into its corrective action (CA) program

Inspection Report# : [2004003\(pdf\)](#)

**Significance:**  Jun 30, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Control Unit 1 Emergency Operating Procedure Sub-Steps Committed to as Compensatory Measures in Accordance with NRC Bulletin 2003-01 Option 2**

The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion VI, "Document Control," having very low safety significance associated with Unit 1 emergency operating procedures when a software error deleted reference to two of five indications intended to monitor primary containment sump performance during the recirculation phase of a design basis accident. Specifically, the RHR Pump Operation - NORMAL and SI Pump Operation - NORMAL substeps of Unit 1 emergency operating procedure EOP-1, "Loss of Reactor or Secondary Coolant," Step 29c, Revision 35, were deleted by the software program and not detected by operations personnel for a period of approximately 9 months. The primary cause of this finding was related to the cross-cutting area of human performance in that despite previous knowledge of the software problem and operations department management expectations to perform line-by-line reviews prior to distribution, 16 errors occurred in safety-related emergency operating, emergency contingency action, critical safety, and shutdown emergency procedures for Units 1 and 2.

The inspectors determined that the finding is more than minor because it affected the procedure quality attribute of the Mitigating Systems Cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events. The finding was considered to be of very low safety significance because it did not result in a design or qualification deficiency, an actual loss of safety function, or involve internal or external initiating events. The licensee has entered this finding into its corrective action (CA) program.

Inspection Report# : [2004003\(pdf\)](#)

**Significance:**  Mar 31, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

**Sprinkler Head Locations Not in Accordance with Fire Code**

The inspectors identified an NCV of the license for the failure of the licensee to install sprinkler heads in accordance with the applicable fire code in the component cooling water (CCW) pump area. Specifically, the sprinkler heads were located a greater distance below the ceiling than permitted by code.

This finding was more than minor because it was associated with the protection against external factors (i.e., fire) attribute of the mitigating systems reactor safety cornerstone and affected the cornerstone objective in that a fire protection feature (i.e., an automatic suppression system) was adversely affected. The finding was of very low safety significance because manual fire fighting and auxiliary feedwater (AFW) could be credited. This issue is a violation of a license condition and the applicable fire code which requires that sprinkler heads be located near the ceiling.

Inspection Report# : [2004002\(pdf\)](#)

**Significance:**  Dec 16, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**Design control violation for the failure to assure that the regulatory requirements and the design basis were accurately maintained for the battery chargers**

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," because Technical Specification Surveillance Requirement 3.8.4.6 for testing the safety-related battery chargers was non-conservative in relation to the design basis calculation for battery charger sizing.

This finding is greater than minor because it affected the mitigating systems cornerstone objective. This finding is of very low safety significance because it was a design deficiency that did not result in the loss of function.

Inspection Report# : [2003007\(pdf\)](#)

**Significance:**  Dec 16, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**Design control violation for the failure to revise voltage drop calculations**

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," because the licensee failed to

maintain the 125-volt direct current (VDC) voltage drop calculations accurate and up-to-date.

This finding is greater than minor because it affected the mitigating systems cornerstone objective. This finding is of very low safety significance because it was a design deficiency that did not result in the loss of function.

Inspection Report# : [2003007\(pdf\)](#)

**G**

**Significance:** Dec 16, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**Corrective action violation for untimely correction of equipment not environmentally qualified**

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action." Specifically, the licensee failed to implement timely corrective action (for over 5 years) for safety-related electrical equipment in the primary auxiliary building (PAB) that was not environmentally qualified, a condition adverse to quality.

This finding is greater than minor because if left uncorrected, the finding would become a more significant safety concern and have adverse effects on the capability to prevent or mitigate the consequences of accidents. The finding is of very low safety significance because it was a design deficiency that did not result in the loss of function.

Inspection Report# : [2003007\(pdf\)](#)

**G**

**Significance:** Dec 16, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**10 CFR 50.49 violation for equipment not environmentally qualified**

The inspectors identified a Non-Cited Violation of 10 CFR 50.49(f). Specifically, the licensee identified equipment important to safety located in the primary auxiliary building that would be susceptible to a harsh environment during a postulated high-energy line break but failed to environmentally qualify that equipment.

This finding is greater than minor because if left uncorrected, the finding would become a more significant safety concern and have adverse effects on the capability to prevent or mitigate the consequences of accidents. The finding is of very low safety significance because it was a design deficiency that did not result in the loss of function.

Inspection Report# : [2003007\(pdf\)](#)

**G**

**Significance:** Dec 16, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**Test control violation for not including several manual CCW valves in the inservice testing program**

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," because the licensee failed to include in the inservice testing program manual component cooling water (CCW) valves that were required to perform a safety function.

This finding is greater than minor because it could have affected the mitigating cornerstone objective of ensuring the availability of the CCW or residual heat removal (RHR) systems when required to respond to the initiating event. The finding is of very low safety significance because it did not represent an actual loss of safety function.

Inspection Report# : [2003007\(pdf\)](#)

**G**

**Significance:** Dec 16, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**Inadequate procedure violation for inaccurate setpoints in EOPs**

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings." Specifically, the licensee failed to include appropriate quantitative setpoint values for the minimum low head safety injection "A" train flow in plant emergency operating procedures (EOPs).

This finding is greater than minor because it could have affected the mitigating cornerstone objective of ensuring the availability of the low head safety injection system when required to respond to the initiating event. The finding is of very low safety significance because it did not represent an actual loss of safety function.

Inspection Report# : [2003007\(pdf\)](#)

**G**

**Significance:** Dec 16, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**Appendix R violation for failure to ensure air would be available to charging pumps**

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix R, Section III.L.1.c. Specifically, the licensee failed to ensure, without the need for "hot standby repairs," adequate control air to the speed controllers for the charging pumps during a postulated fire requiring an alternative shutdown method.

This finding is greater than minor because the finding would become a more significant safety concern if left uncorrected. The finding is of very low safety significance because it is likely that the licensee would have been successful in completing the repairs and allowing the plant to be maintained in hot standby until cold shutdown could be achieved.

Inspection Report# : [2003007\(pdf\)](#)

**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\(pdf\)](#)

**Y**

**Significance:** 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\(pdf\)](#)

**R**

**Significance:** 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.

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

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

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## Barrier Integrity

**Significance:**  Mar 31, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

### Containment Upper Hatch Interlock

The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," having very low safety significance (Green) for failing to properly document a modification of the containment hatch interlock. The licensee failed to perform an engineering design change analysis for the Unit 1 personal containment hatch upper interlock cable when it was identified that original design specifications were not met. Specifically, the cable was replaced with a smaller cable prior to 2000 and again in 2000. When the cable broke in 2004, engineers replaced the cable with one that met the original design specifications, correcting the violation.

The inspectors determined that the finding was more than minor because it affected the barrier integrity reactor safety cornerstone objective attribute of maintaining functionality of containment design control. The finding was considered to be of very low safety significance because it did not result in an actual open pathway in the physical integrity of the reactor containment or actual reduction of the atmospheric pressure control function of the reactor containment.

Inspection Report# : [2004002\(pdf\)](#)

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## Emergency Preparedness

**Significance:**  Mar 31, 2004

Identified By: NRC

Item Type: FIN Finding

### Steam Generator Narrow Range Level Setpoints Revised in Safety-Related Procedures but not in Emergency Plan General Emergency EAL 3.1.1.4

The inspectors identified a finding of very low safety significance concerning an inadequate extent-of-condition review during safety-related procedure revisions associated with steam generator narrow range level setpoints, and the failure to recognize the impact of the setpoint changes on the Point Beach Emergency Plan. The primary cause of this finding was related to the cross-cutting area of human performance in four respects. First, at least four personnel, including a Shift Manager (SM) and two senior reactor operators (SROs), reviewed the procedure changes but failed to recognize the potential impact of the procedure changes on the emergency plan. Second, personnel associated with the corrective action process for the initial steam generator narrow range level density compensation issue failed to recognize the potential emergency plan impact and raise the issue to the attention of emergency preparedness personnel. Third, despite the emergency preparedness reviews completed prior to and during the 95003 supplemental inspection process, the licensee had not identified and evaluated the potential impacts of the discrepancy between the procedure setpoints and Emergency Action Level 3.1.1.4. Fourth, until identified by the inspectors, personnel involved with efforts to achieve regulatory compliance with eight emergency action levels (EALs) during January 2004, had not recognized or evaluated the potential impact of the discrepancy.

This finding was considered more than minor because it: (1) involved the procedure quality attribute of the emergency preparedness reactor safety cornerstone; and (2) if left uncorrected, it could become a more significant safety concern if the discrepancy in steam generator narrow range level setpoints prevented, or caused a delay in, declaring a general emergency during a loss of electrical power event. The finding was not considered a violation of regulatory requirements.

Inspection Report# : [2004002\(pdf\)](#)

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**Significance:**  Dec 31, 2003



Identified By: NRC  
Item Type: FIN Finding

**Protective action recommendation training for Licensed Reactor Operator using an outdated procedure**

The inspectors identified a finding of very low safety significance when they observed that the licensee failed to use the current revision to safety-related Emergency Plan Implementing Procedure (EPIP) 1.3, "Tools for Dose Assessment," during a licensed operator requalification training class. This was the final scheduled class for this topic and the only one that was taught after the procedure had been revised on November 26, 2003. In addition, the inspectors noted that the training failed to include sheltering as a protective action recommendation option. This occurred despite the procedure having been changed the week before specifically to allow consideration of the sheltering option. The primary cause of this finding was related to the cross-cutting area of human performance in two respects. First, the decision not to train on the sheltering option represented a missed opportunity to train personnel on the full range of available protective action recommendations. Second, members of Operations management and Emergency Planning supervision failed to stop the training despite having been informed at the beginning of the class that the most current revision would not be used.

The finding was considered more than minor because it: (1) involved the emergency response organization readiness and response organization performance training attributes of the Reactor Safety/Emergency Preparedness cornerstone; and (2) if left uncorrected, it could lead to inadequate performance of protective action recommendations, actions intended to protect the health and safety of the public. The finding was not a violation of regulatory requirements.

Inspection Report# : [2003009\(pdf\)](#)

**Significance:**  Dec 16, 2003

Identified By: NRC  
Item Type: NCV NonCited Violation

**10 CFR 50.54, 10 CFR 50.47 violation for failure to assign adequate emergency response organization staffing**

The inspectors identified a Non-Cited Violation of emergency planning standard 10 CFR 50.47(b)(2) because the licensee failed to assign onshift responsibilities for reading facility seismic monitors, thereby affecting the ability to timely classify certain seismic emergency events.

This finding is greater than minor because it was associated with a cornerstone attribute and affected the emergency preparedness cornerstone objective to ensure the adequate protection of the public health and safety. This finding is of very low safety significance because it was a degradation in the emergency response organization (ERO) onshift staffing and did not represent a planning standard function failure.

Inspection Report# : [2003007\(pdf\)](#)

**Significance:** SL-IV Dec 16, 2003

Identified By: NRC  
Item Type: NCV NonCited Violation

**10 CFR 50.9 violation for failure to report in the third quarter of 2001 that the emergency response organization performance indicator crossed the significance threshold from green to white**

The inspectors identified a Severity Level IV Non-Cited Violation of 10 CFR 50.9 because the licensee failed to provide complete and accurate information in the submittal of information for the emergency response organization (ERO) performance indicator (PI). Twenty-three onshift communicators should have been tracked and reported in the ERO PI, but were not. The licensee has subsequently submitted corrected PI data to the NRC.

This issue is greater than minor because it caused the PI to cross the Green-to-White threshold for the 3rd quarter of 2001. Because this issue affected the NRC's ability to perform its regulatory function, it was evaluated with the traditional enforcement process.

Inspection Report# : [2003007\(pdf\)](#)

**Significance:**  Dec 16, 2003

Identified By: NRC  
Item Type: NCV NonCited Violation

**10 CFR 50.54, 10 CFR 50.47 violation for the failure to develop and implement a training program for the emergency planning staff**

The inspectors identified a Non-Cited Violation of emergency planning standard 10 CFR 50.47(b)(16) because the licensee failed to develop and implement an emergency planning staff training program to ensure that emergency planners were properly trained.

This finding is greater than minor because it was associated with a cornerstone attribute and affected the emergency preparedness cornerstone objective to ensure the adequate protection of the public health and safety. This finding is of very low safety significance because lack of a staff training program presented a potential degrading condition for the level of qualification and proficiency of the emergency preparedness staff, but did not represent a failure of the planning standard function.

Inspection Report# : [2003007\(pdf\)](#)

**Significance:** SL-III Dec 16, 2003

Identified By: NRC  
Item Type: VIO Violation

**10 CFR 50.54, 10 CFR 50.47 apparent violation for failure to maintain a standard scheme of emergency action levels**

The inspectors identified an apparent violation of 10 CFR 50.54(q), associated with emergency planning standard 10 CFR 50.47(b)(4), which will be subject to the NRC traditional enforcement process not the revised Reactor Oversight Process. Specifically, the licensee failed to

maintain a standard scheme of emergency action levels (EALs). Eight EALs were changed in 1998 and 1999. The changes decreased the effectiveness of the Emergency Plan in that emergency conditions that would have resulted in classifications at the General Emergency (GE), Alert, and Notification of Unusual Event (NOUE) levels would result in a lesser classification under the current EAL scheme. Approval of the NRC was not obtained prior to the changes being made. Since the identification of the issue by the inspectors, the licensee has revised the eight EALs to be equivalent with those approved by the NRC in 1984.

In a letter dated March 17, 2004, a Notice of Violation and Proposed Imposition of Civil Penalty - \$60,000, was issued.

Inspection Report# : [2003007\(pdf\)](#)

**Significance:**  Dec 16, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**10 CFR 50.54, 10 CFR 50.47 violation for failure to ensure that the facility seismic monitors could support NOUE declaration**

The inspectors identified a Non-Cited Violation of emergency planning standard 10 CFR 50.47(b)(4) because the licensee failed to properly calibrate the facility seismic monitors to ensure they were capable of supporting implementation of a Notice of Unusual Event EAL.

This finding is greater than minor because it was associated with a cornerstone attribute and affected the emergency preparedness cornerstone objective to ensure the adequate protection of the public health and safety. This finding is of very low safety significance because a Notice of Unusual Event could still be declared based on ground shaking.

Inspection Report# : [2003007\(pdf\)](#)

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## Occupational Radiation Safety

**Significance:**  Jun 30, 2004

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Follow Procedures in the Issuance and Use of Bubble Hood-type Respiratory Protective Devices**

A finding of very low safety significance and an associated NCV were identified through an NRC-identified event, when on April 9, 2004, while installing steam generator nozzle dams, licensee staff increased supplied breathing air pressure in excess of procedural requirements while attempting to mitigate lost or diminished air flow to contract workers who were utilizing continuous flow, supplied-air respirator "bubble hoods." The inspectors determined that the licensee failed to meet the requirements of 10 CFR 20.1703, when the licensee increased the air line pressure in excess of the procedural guidance, which resulted in the licensee utilizing a respiratory protection device contrary to its National Institute for Occupational Safety and Health (NIOSH) certification.

The inspectors determined that the finding is more than minor because use of a respiratory protection device outside its specifications could impact internal dose, and if left uncorrected, could become a more significant safety concern. The finding was considered to be of very low safety significance because no internal exposure to radioactive material resulted from the use of the bubble hoods with higher air line pressure than allowed. The licensee has entered this finding into its corrective action (CA) program.

Inspection Report# : [2004003\(pdf\)](#)

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## Public Radiation Safety

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### Physical Protection

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

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### Miscellaneous

Last modified : December 29, 2004