

## Point Beach 2

### 4Q/2003 Plant Inspection Findings

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#### Initiating Events

**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\(pdf\)](#)



**Significance:** Sep 30, 2003

Identified By: NRC

Item Type: FIN Finding

### Unit 2 SI During Start-up

A finding of very low safety significance was self-revealed when Unit 2 operators failed to identify that the main feedwater regulating valves (MFRVs) were in the automatic mode with a signal to open when the reactor trip breakers

were closed during a reactor startup. The resultant flow of lower temperature water into the steam generators reduced reactor coolant system (RCS) temperatures causing pressurizer level to decrease to the point that operators initiated a manual safety injection (SI) and reactor trip signal. The primary cause of this finding was related to the cross-cutting area of human performance. Despite at least four licensed reactor operators having discussed the abnormality of leaving the MFRVs in the automatic mode with senior reactor operators prior to the reactor startup attempt, no changes were made. In addition, the entire operations crew on the evening of July 11, 2003, failed to recognize the expected system responses when closing the reactor trip breakers.

The inspectors determined that the finding was more than minor because it: (1) involved the configuration control and human performance attributes of the Initiating Events cornerstone; and (2) affected the cornerstone objective of limiting the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown operations. The finding was of very low safety significance because it did not contribute to the likelihood of a primary or secondary system loss-of-coolant accident (LOCA), did not contribute to both the likelihood of a reactor trip and mitigating equipment unavailability, and did not increase the likelihood of a fire or flooding event. No violation of NRC requirements occurred.

Inspection Report# : [2003004\(pdf\)](#)

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## Mitigating Systems

**Significance:**  Dec 31, 2003

Identified By: NRC

Item Type: FIN Finding

### **Inadequate risk assessment associated with removing RHR pumps from the shutdown cooling mode of operation**

The finding was considered more than minor because: (1) failure to recognize the increased risk condition resulted in compensatory risk management actions to protect the remaining reactor decay heat removal paths not being taken, actions intended to prevent entry into an unplanned orange or red risk condition; and (2) if left uncorrected, it would become a more safety significant concern, if elevated reactor decay heat removal risk categories were entered without the required risk management actions in place and subsequent heat removal challenges were to occur. The finding was of very low significance because it was not a design or qualification deficiency, did not represent an actual loss of the safety function, and did not involve internal or external initiating events. The finding was not a violation of regulatory requirements.

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

**Significance:**  Dec 31, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

### **Operator error results in starting a residual heat removal pump with the suction valve shut**

A Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self-revealed when inadequate procedure use resulted in starting a Unit 2 RHR pump with the suction valve shut. The primary cause of this finding was related to the cross-cutting area of human performance. Perceived time pressure, concurrent watch turnovers, lack of specific supervisory briefings, operator fatigue, and ineffective peer and self-checking resulted in a licensed senior reactor operator (SRO) and reactor operator not recognizing that the suction path to the 'B' RHR pump was isolated prior to starting the pump.

This finding was considered more than minor because it: 1) affected the mitigating systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events, and 2) involved the human performance attribute of the mitigating systems cornerstone. The finding was determined to be of very low risk significance since the inadequate procedure place keeping did not result in a design or qualification deficiency, an actual loss of safety function, or involve internal or external initiating events.

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

G

**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\(pdf\)](#)

G

**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\(pdf\)](#)

**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\(pdf\)](#)

**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\(pdf\)](#)

**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\(pdf\)](#)

**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:**  Sep 30, 2003

Identified By: NRC

Item Type: FIN Finding

### **Operating Test Grading Disagreement**

The inspectors identified a finding of very low risk significance concerning a grading discrepancy between the facility licensee and the NRC inspectors during the NRC licensed operator requalification annual operating test. The grading disagreement involved a pass-fail decision on one operating crew and two licensed operators' performance during the simulator scenario portion of the operating test. Specifically, the crew inadequately diagnosed and mitigated a component cooling water leak event which later caused an unexpected manual reactor trip. In addition, the senior operator, while implementing the Emergency Plan, failed to make proper and accurate off-site notifications. The licensee failed to adequately assess the pass/fail evaluation for the poor performance by the crew and operators that would have potentially resulted in an operational test failure.

This finding was considered more than minor because improper grading of a crew or an individual was considered a risk important issue in that operators or crews with unsatisfactory performance could be placed on shift without proper remediation. Furthermore, there was the realistic potential of providing negative training based on improper assessment of operator performance. Specifically, poor performance on the simulator could potentially lead to improper operator actions on the actual plant. The finding was of very low safety significance because the poor performance and incorrect actions were on the simulator and not on the actual plant. Furthermore, no actual plant emergency occurred and there was no actual impact on equipment or personnel safety. No violation of regulatory requirements occurred.

Inspection Report# : [2003004\(pdf\)](#)

**Significance:**  Sep 30, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

### **Failure to Perform Required Performance Testing Per 10 CFR 55.46**

The inspectors identified a Non-Cited Violation (NCV) of 10 CFR 55.46(d)(1), "Continued Assurance of Simulator Fidelity." The inspectors identified one example of failure to meet the performance requirements in maintaining simulator fidelity throughout the life of the simulation facility. Specifically, the facility licensee failed to conduct one particular performance test throughout the life of the simulator (since 1991) in accordance with the committed testing requirements of ANSI/ANS-3.5-1985, "Nuclear Power Plant Simulators for Use in Operator Training."

This finding was considered more than minor because of the realistic potential of providing negative training based on simulator deficiencies compared to the actual plant existed. Specifically, inadequate testing of the simulator to assure that the simulator appropriately replicated the actual plant could potentially have affected operator actions on the actual plant. The finding was of very low safety significance because the discrepancy was on the simulator and the actual plant functioned properly. Furthermore, no actual plant emergency occurred and there was no actual impact on equipment or personnel safety.

Inspection Report# : [2003004\(pdf\)](#)

**Significance:**  Jun 30, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Implement Risk Management Actions for Components Made Unavailable by Pre-Planned Work Activities**

The inspectors identified a Non-Cited Violation of 10 CFR 50.65(a)(4) for failure to implement required risk management actions during calibration of volume control tank level transmitters during September 2002 and January 2003. The primary cause of this finding was related to the cross-cutting area of human performance in that probabilistic risk assessment, production planning, and on-shift personnel had not utilized the full capabilities of the risk assessment tool to recognize the unavailability of components associated with pre-planned work activities.

The finding is greater than minor because, if left uncorrected, it would become a more significant safety concern if risk assessments that had not considered the impact of equipment and components rendered unavailable by pre-planned activities resulted in high risk levels without compensatory risk management analyses in place. The finding is of very low significance because it was not a design or qualification deficiency, did not represent an actual loss of the safety function, and did not involve internal or external initiating events.

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

**Significance:**  Mar 31, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**Emergency Diesel Generator Safety-Related Protective Relay Calibration Procedure Inadequacies**

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," requirements for inadequate emergency diesel generator (EDG) safety-related protective relay calibration procedures which contained quantitative acceptance criteria limits that did not correspond to vendor recommended values. The primary cause of this finding was related to the cross-cutting area of human performance. Despite multiple opportunities for procedure writers, technical reviewers, relay technicians, maintenance work planners, electrical maintenance first-line supervisors, and operations personnel to have identified these errors, each of the four procedures used to calibrate the EDG safety-related protective relays were found to contain similar quantitative acceptance criteria errors.

This finding was more than minor because it: 1) affected the mitigating systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events, and 2) if left uncorrected, would become a more significant safety concern in subsequent years if out-of-specification EDG safety-related protective relay settings affecting equipment operability and electrical distribution system coordination were left in service and not corrected. The finding was determined to be of very low risk significance since the inadequate procedures did not result in a design or qualification deficiency, an actual loss of the safety function, or involve internal or external initiating events.

Inspection Report# : [2003002\(pdf\)](#)

**Significance:**  Mar 31, 2003

Identified By: NRC

Item Type: FIN Finding

**G-05 Gas Turbine Generator Return-To-Service Prior to Completion of Troubleshooting and Maintenance Activities**

The inspectors identified a finding of very low risk significance finding concerning the return to service of the G-05 gas turbine (GT) generator prior to completion of troubleshooting efforts involving starting diesel oil samples and certain

maintenance activities. The primary cause of this finding was related to the cross-cutting area of human performance in that lack of interdepartmental communications and coordination caused the GT to be inappropriately returned to service on March 3, 2003, despite starting diesel analyses that indicated advanced oil degradation and the onset of bearing damage and no return-to-service testing requirements having been defined in the maintenance department troubleshooting plan.

The inspectors determined that the issue was more than minor because it affected the availability, reliability, and capability of the G-05 GT, a mitigating system. The finding was of very low safety significance since the inappropriate return-to-service did not result in a design or qualification deficiency, an actual loss of the safety function, or involve internal or external initiating events. No violation of NRC requirements occurred.

Inspection Report# : [2003002\(pdf\)](#)

**Significance:**  Mar 31, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

#### **Reoccurring Facade Freeze Protection System Deficiencies**

A Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified through a self-revealing event on February 11, 2003, when one of the main control board indications associated with Unit 1 'B' main steam line pressure began reading higher than the other two. The higher pressure indicated the formation of an ice plug associated with pressure transmitter IPT-483, a transmitter providing input to the engineering safeguards system. The primary cause of this finding was related to the cross-cutting area of human performance in that lack of facade freeze protection system coordination and training in the areas of lagging deficiencies and facade freeze system operations resulted in the removal of one of the three main steam line pressure inputs to the engineering safeguards system, a system relied upon to mitigate the consequences of a design basis accident.

The inspectors determined that the facade freeze protection issues were more than minor because: 1) they had affected the availability, reliability, and capability of an input to the engineering safeguards system, a system relied upon to mitigate the consequences of a design basis accident; and 2) if left uncorrected, they would become a more significant concern in subsequent years if freezing of sensing lines resulted in the inability to mitigate the consequences of an accident. The finding was determined to be of very low risk significance since the facade freeze protection issues did not result in a design or qualification deficiency, an actual loss of the safety function, or meet any of the internal or external event screening criteria.

Inspection Report# : [2003002\(pdf\)](#)

**Significance:**  Mar 24, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

#### **NCV of 10 CFR Part 50, Appendix B, Criterion VI, for the failure to distribute temporary procedure changes to procedure sets in emergency response facilities**

The inspectors identified two issues that were treated as one Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion VI, "Document Control." First, emergency and abnormal procedures in two emergency response facilities were not included as part of the temporary change distribution process. Second, no controls were in place to ensure that the scope of distribution of temporary procedure changes was appropriate.

The finding was of very low risk significance because the licensee distributed the documents to the facilities prior to any facility activation and the need to use the procedures.

Based upon the results of these inspections, we have concluded that the Red inspection finding, which involved the



potential common mode failure of the AFW pumps due to inadequate operator response to a loss of instrument air (IA), will not be treated as an old design issue. As detailed in Section 6.06.a of Manual Chapter 0305, there are four criteria that must be met for the NRC to classify a problem as an old design issue and thus allow the NRC to not consider the finding in its assessment of Point Beach's overall performance.

The inspections identified that the criterion pertaining to corrective action was not met in that the implementation of corrective action associated with your evaluation of the AFW/IA issue did not prevent recurrence of another, separate potential common mode failure of the AFW pumps. The failure to implement thorough and complete corrective actions became apparent during our review of the October 2002 AFW recirculation line orifice plugging issue and the identification of other problems related to AFW design. These problems included the use of a nonsafety-related power supply for relays associated with the proper operation of the AFW recirculation line air-operated flow control valves and the single electrical bus dependencies of three of the four recirculation line air-operated flow control valves and three of the four service water supply motor-operated valves.

Because the AFW/IA Red finding did not meet the criteria for consideration as an old design issue, Point Beach is in the Multiple/Repetitive Degraded Cornerstone Column of the Action Matrix of Manual Chapter 0305.

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



**Significance:** Mar 24, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

**NCV of 10 CFR Part 50, Appendix B, Criterion V, for inadequate procedure for calibration of auxiliary feedwater flow meter**

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for a procedure which directed the use of a flow instrument for the turbine-driven AFW pump recirculation line in a range for which it was not calibrated.

The finding was of very low risk significance because follow-up calibration indicated that the instrument was reliable in the range in which it was to be used, and the inspectors concluded that it could have been used to accurately determine the AFW flow.

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



**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 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).

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

**Significance:** N/A Mar 24, 2003

Identified By: NRC

Item Type: VIO Violation


**The failure to identify the root cause and implement corrective actions for the AFW/IA issue, a significant condition adverse to quality, so as to prevent recurrence.**

A violation was identified for the licensee's failure to implement adequate corrective actions to effectively address a previous Red finding and preclude recurrence (Inspection Report 50-266/01-17; 50-301/01-17). Specifically, the licensee failed to identify potential common mode failures that existed involving power supplies to the recirculation line air-operated valve and other system components. In addition, the licensee's corrective actions for the potential common mode failure associated with a loss of instrument air did not preclude repetition. Specifically, the licensee's corrective actions, to upgrade the safety function of the air-operated recirculation valve, failed to ensure that successful operation of the recirculation line air-operated valve was dependent only on safety-related support systems. Following the corrective actions, successful operation of the valve was still dependent upon nonsafety-related power to an interposing relay. Additionally, the corrective actions failed to discover a single failure mechanism involving a system orifice modification.

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

This violation is associated with a previously identified RED finding (IR 50-266;50-30/01-17).

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

**Significance:**  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:**  Jun 30, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

### **Need for a Unit 2 Containment Cooling Fan Discharge Damper Temporary Modification Not Identified in a Timely Manner**

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," for not taking appropriate and timely corrective actions to fully assess and correct degraded conditions associated with the safety-related Unit 2 containment cooling fan backdraft damper, 2W-1D2-A, during thermal performance testing activities on March 20, 2003. The primary cause of this finding was related to the cross-cutting area of human performance. Despite the involvement of the test coordinator, control room operating supervisor, and system engineer, incomplete communications and coordination resulted in damper parts on the cooling fan plenum floor not being fully identified as components affecting operation of the safety-related damper. The condition adverse to quality was identified 13 days later when, on April 2, 2003, a mechanic passing through a radiologically controlled machine shop, identified the damper counterweight amongst other controlled material.

The finding was more than minor because: 1) it affected the reactor safety barrier integrity cornerstone objective of maintaining the functionality of primary containment, in that the reliability and availability of the Unit 2, 'D' containment cooling fan, a risk significant large-early-release component, was affected, and 2) if left uncorrected, would become a more significant safety concern if components relied upon to perform safety-related functions were returned to service prior to fully assessing and correcting degraded conditions. The finding was determined to be of very low risk significance since the degraded backdraft damper did not represent a degradation of the radiological barrier function of the control room, auxiliary building, or spent fuel pool; did not represent degradation of the barrier function of the control room against smoke or a toxic atmosphere; and did not represent an actual open pathway in the physical integrity of reactor containment or an actual reduction of the atmospheric pressure control function of the reactor containment.

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

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## Emergency Preparedness

**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:** TBD Dec 16, 2003

Identified By: NRC

Item Type: AV Apparent 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.

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\(pdf\)](#)

**Significance:** N/A Apr 15, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

### Decreased an Emergency Plan Commitment Without Prior NRC Approval

In October 1998, the licensee decreased its Emergency Plan's effectiveness without prior NRC approval due to an inadequate 10 CFR 50.54(q) review of six Emergency Response Organization (ERO) positions, which the licensee re-categorized from being 30 minute response positions to be 60 minute response positions. These six positions were re-established as 30 minute response positions in late January 2003. This Severity Level IV violation is being treated as a NCV consistent with Section VI.A.1 of the NRC Enforcement Policy.

Inspection Report# : [2002014\(pdf\)](#)

**Significance:**  Mar 31, 2003

Identified By: NRC

Item Type: FIN Finding

#### Emergency Notification System Power Failure

The inspectors identified one finding of very low risk significance for not having adequate configuration control and not providing sufficient drawings and instructions to maintenance and operations personnel during an emergency notification telephone system battery charger failure and subsequent replacement activities. The primary cause of this finding was related to the cross-cutting area of human performance in that a lack of understanding of the basic system configuration and the absence of associated drawings and operating instructions resulted in unnecessary periods of system unavailability.

The inspectors determined that the issue was more than minor because: 1) it affected the emergency preparedness cornerstone equipment and communications system attribute, and 2) if left uncorrected, would become a more significant safety concern if emergency response facility communication system modifications were made without the licensee's knowledge such that a reduction in emergency planning effectiveness occurred. Based on the answers to the Inspection Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process," screening questions, the inspectors determined that the issue was of very low safety significance. No violation of regulatory requirements occurred

Inspection Report# : [2003002\(pdf\)](#)

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## Occupational Radiation Safety

**Significance:**  Oct 09, 2003

Identified By: NRC

Item Type: NCV NonCited Violation

#### Failure to control access to a Very High Radiation Area

Green. A finding of very low safety significance and an associated Non-Cited Violation (NCV) was identified through a self-revealing event, when the key for the Unit 2 Keyway (i.e. a posted Very High Radiation Area [VHRA], which had been established prior to withdrawing the thimbles ) was improperly controlled, and thus the access to the keyway was improperly controlled for several hours. Despite adequate station procedures and training (i.e. of Radiation Protection personnel) for proper VHRA key control and requirements to post and guard VHRAs the gate was left unguarded for several hours.

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

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## Public Radiation Safety

**Significance:**  Oct 11, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

**Failure to perform adequate surveys**

Green. A finding of very low safety significance and an associated Non-Cited Violation (NCV) was identified through a self-revealing event, when a valve was shipped from Point Beach Nuclear Plant without being identified as radioactive material. An inadequate radiological survey of 2CV-203 was performed (i.e. to determine the concentrations or quantities of radioactive materials inside the valve). Licensed radioactive material was found by the vendor at their repair facility (i.e. inside the valve), prior to performing work on the valve. Despite adequate station procedures and training (i.e. of Radiation Protection personnel) for proper determination of materials being evaluated for release or control at the Radiologically Controlled Area boundary, the valve was inadequately surveyed and released for shipment to the vendor, as unrestricted material.

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

**Significance:**  May 14, 2003

Identified By: Self Disclosing

Item Type: NCV NonCited Violation

**Failure to Maintain Control of Licensed Radioactive Material in an Unrestricted Area and that was not in Storage**

The licensee identified a self-revealing violation of 10 CFR 20.1802, involving the failure to maintain control and constant surveillance of licensed radioactive material in an unrestricted area (an instrument and calibration training laboratory) that was not in storage. The material was an unaccounted for, 1.0 microcurie strontium-90/yttrium-90 check source, installed in an area radiation monitor.

The finding was more than minor because it was associated with the "Program and Process" attribute of the Public Radiation Safety Cornerstone and affected the cornerstone objective of ensuring adequate protection of public health and safety from exposure to radioactive materials released into the public domain. This was a legacy issue, for which the apparent cause occurred prior to implementation of an effective radioactive material source control program in 1998. However, this finding was of very low safety significance in that public radiation exposure was not greater than 0.005 rem and the licensee did not have more than five radioactive material control occurrences (in the previous eight quarters). Thus, this finding will be documented as a Non-Cited Violation of 10 CFR 20.1802, for the licensee's failure to maintain control of licensed radioactive material in an unrestricted area that was not in storage.

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

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## Physical Protection

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## Miscellaneous

Last modified : March 02, 2004