Point Beach 1
3Q/2003 Plant Inspection Findings

Initiating Events

Significance: G Dec 28, 2002
Identified By: NRC
Item Type: FIN Finding
Inadequate and Untimely Corrective Actions For Flooding of Manholes Containing Cables
One finding of very low risk significance was identified by the inspectors for the licensee's failure to establish timely and adequate corrective actions to address the flooding of manholes which contained both safety and non-safety related systems, structures, and components. The inspectors identified that the licensee had not implemented effective corrective actions to address long-standing problems with flooding in manholes and had deferred the implementation of corrective actions with insufficient basis.

The finding was more than minor because, if left uncorrected, it would become a more significant concern since the lack of effective corrective actions to inspect and pump out water in manholes could affect safety-related cables routed through manholes such as those for service water pumps. Additionally, some of the cables routed in manholes provide power to safety-related buses from the licensee's offsite power systems. Hence, the loss of such power, due to cable failures, could result in momentary loss of power to the bus and the inability to re-energize the affected buses from the normal power source. This issue was categorized as a finding of very low risk significance since the identified water intrusion conditions had not caused any safety-related equipment failures at this time. No violation of NRC requirements occurred.
Inspection Report# : 2002013*(pdf)*

Significance: G Dec 28, 2002
Identified By: NRC
Item Type: FIN Finding
Insufficient Preparation for Cold Weather Conditions
A finding of very low significance was identified for not sufficiently coordinating and being adequately prepared for the onset of cold weather prior to November 1, 2002, a point at which the Point Beach Nuclear Plant had experienced 30 hours of below freezing temperatures over 6 nights. The primary cause of this finding was related to the cross-cutting area of human performance. Despite beginning freeze protection activities at an appropriate time, lack of coordination between licensee departments resulted in incomplete preparations prior to the onset of freezing temperatures.

The inspectors determined that the issue was more than minor because it increased the likelihood of those events that upset plant stability during power operations and would, if left uncorrected, become a more significant safety concern in subsequent years if more safety-related systems were to be affected. The finding was of very low safety significance because no safety-related functions or mitigating systems were rendered inoperable. No violation of NRC requirements occurred.
Inspection Report# : 2002013*(pdf)*

Significance: G Dec 28, 2002
Identified By: NRC
Item Type: FIN Finding
Mis-calibration of Unit 1 Steam Generator Level Setpoint Programmer Module
The inspectors identified a finding of very low safety significance concerning the failure of a technician to properly calibrate feedwater controller LM-463F. The primary cause of this finding was related to the cross-cutting area of human performance in that the technician who performed the calibration, because of inattention to detail, did not restore a dial setting after taking three as-found readings, adjusting two potentiometers, and taking three as-left readings.

The inspectors determined that the error in calibrating the steam generator level system controller, an error that affected both generators, was of more than minor significance in that it was associated with the human performance attribute of the initiating events cornerstone and affected the cornerstone objective of limiting the likelihood of those events (such as a loss of feedwater) that upset plant stability. The finding was of very low significance because the finding did not contribute to the likelihood of a primary or secondary system loss-of-coolant accident initiator, did not contribute to the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available, and did not increase the likelihood of a fire or internal/external flood. No violation of NRC requirements occurred.
Inspection Report# : 2002013*(pdf)*

Mitigating Systems

Significance: G 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: G 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: G 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: G 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: G 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: G 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 that the other two. The higher pressure indicated the formation of an ice plug associated with pressure transmitter 1PT-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: Y Mar 24, 2003
Identified By: NRC
Item Type: FIN Finding
Apparent violation of 10 CFR Part 50, Appendix B, Criterion III for the failure to establish appropriate design control measures for the installation of orifices to the AFW recirculation lines
An apparent violation was identified, in part, through a self-revealing event when decreased auxiliary feedwater pump recirculation flow was noted during post-maintenance testing. Subsequent licensee and NRC review of the event determined that the licensee had installed incorrectly designed orifices in each of the pump recirculation lines. The orifices, due to small clearances, were susceptible to plugging. The primary causes of this finding were inadequacies in the licensee's design process and the licensee's implementation of the process, including the identification of system design requirements and the development of supporting safety evaluations.

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

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

Significance: G 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 resonse 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: G 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: 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: R Feb 28, 2002
Identified By: Licensee
Item Type: VIO Violation
POTENTIAL COMMON MODE FAILURE OF AUXILIARY FEEDWATER PUMPS DUE TO INADEQUATE PROCEDURAL GUIDANCE
Units 1 and 2. The licensee identified a potential common mode failure of the auxiliary feedwater pumps due to operator actions specified in plant procedures. The team identified that procedural guidance provided to operators was inadequate to prevent such a common mode failure. In addition, the team identified that the licensee had seven opportunities, from 1981 through 1997, to identifiy the problem and take appropriate corrective actions. After considering the information developed during the inspection and the information the licensee provided at the April 29, 2002, regulatory conference, the NRC concluded that a violation of 10 CFR Part 50, Appendix B, Criterion XVI, was appropriate for two of the originally proposed seven examples. The failures to provide adequate procedural guidance and to take appropriate corrective actions are both a violation of 10 CFR Part 50, Appendix B, Criteria V and XVI. This issue has been determined to have high safety significance (Red). A common mode failure of the auxiliary feedwater pumps would result in substantially reduced mitigation capability for safely shutting down the plant in response to certain transients. The significance was determined to be high largely due to the relatively high initiating event frequencies associated with the involved transients and the high likelihood of improper operator actions due to the procedural inadequacies. The final significance determination for the Red finding and Notice of Violation were issued to the licensee in a letter dated July 12, 2002.

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

Barrier Integrity

Emergency Preparedness

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: G 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)*

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Miscellaneous

Last modified : December 16, 2003