Point Beach 2
3Q/2007 Plant Inspection Findings

Initiating Events

Significance: G Sep 30, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Inadvertent Chemical and Volume Control System Letdown Isolation Due to Inadequate Instructions, Procedures, and Drawings
A self-revealing finding and associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified for the failure to have procedures appropriate to the circumstances for modifying the Unit 1 Charging Pump 1P-2B wiring as part of Modification MR 04-013*B, "CVCS [Chemical and Volume Control System] Charging Pump Variable Frequency Drives." Specifically, instructions were not provided to prevent isolation of reactor coolant letdown flow while performing wiring modifications for the 1P-2B Charging Pump. The licensee entered the issue into their corrective action program and took immediate corrective actions. The licensee continued to evaluate the causes and corrective actions to address this finding at the end of the inspection period.

The finding is greater than minor because it is associated with the design control and procedural quality attributes of the Initiating Events Cornerstone and affected the cornerstone objectives to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Additionally, the inadequate design review process that caused this problem, if left uncorrected, would become a more significant safety concern. The finding is of very low safety significance (Green) because the letdown isolation that occurred did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. The inspectors also determined that the primary cause for this finding is related to the cross-cutting area of human performance. Specifically, under the component of resources, the licensee failed to ensure complete, accurate, and up-to-date installation workplans for modification of the 1P-2B Charging Pump wiring
Inspection Report# : 2007004 *(pdf)*

Significance: G Jun 30, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Perform Appropriate Maintenance on Air-Operated Valve Positioner Linkage
A self-revealing finding and associated NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions , Procedures, and Drawings," having very low safety significance (Green), was identified for failure to have procedures appropriate to the circumstances for maintenance on air-operated valve positioners, when hardware attaching the connecting link between the Unit 1 "B" feedwater regulating valve positioner and actuator became disconnected resulting in loss of control of the valve. Specifically, there were no procedures that ensured that positioner arm hardware was properly secured. The licensee repaired valve positioners as required, performed an extent-of-condition review for similar valve positioners and is performing a root cause evaluation.

The inspectors concluded the finding is greater than minor because the finding was associated with the equipment performance attribute of the Initiating Events Cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The transient initiator contributor was a reactor trip that did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. Consequently, the finding is considered to be of very low safety significance (Green). The inspectors also determined that the primary cause of this finding is related to the cross-cutting area of human performance (H.2.(c)). Specifically, under the component of resources, the licensee failed to ensure complete, accurate, and up-to-date procedures and work packages for work on air-operated valve positioners were available.
Inspection Report# : 2007003 *(pdf)*

Significance: G Mar 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Take corrective Actions for Cold Weather Issues Prior to the Onset of Cold Weather
The inspectors identified a finding and associated non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," having very low safety significance (Green) for the failure to take prompt corrective actions to address a potential cold weather issue initially identified in October 2006 and again in January 2007. The failure to take prompt corrective actions led to the formation of ice on offsite power and plant equipment cable trays and cabling. The sheets of ice were also in close proximity to the Unit 2 Refueling Water Storage Tank level indicators and outlet piping. The licensee initiated condition reports and took immediate corrective actions and had planned additional corrective actions based on a causal evaluation.

The finding is greater than minor because if left uncorrected the finding would become a more significant safety concern in that the formation of ice in the facade building in this case could have affected safety-related equipment. In addition, the finding is associated with the external factors attribute of the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Because the significant ice buildup in the Unit 2 facade was an external factor and transient initiator contributor, and did not contribute to both the likelihood of both a reactor trip and that mitigation equipment or functions would not be available, the finding is considered to be of very low safety significance (Green). This finding has a cross-cutting aspect in the area of problem identification and resolution because the licensee did not take appropriate corrective actions in a timely manner, commensurate with their safety significance and complexity.
Inspection Report# : 2007002 *(pdf)*

Significance: SL-III Dec 31, 2006
Identified By: NRC
Item Type: VIO Violation
Failure to Update FSAR With Reactor Head Drop Analysis and Obtain NRC Approval
The inspectors identified an apparent violation for the failure of the licensee in 1983 to incorporate the results of an 1982 analysis of a postulated drop of the reactor vessel head on the vessel into the Final Safety Analysis Report (FSAR). The apparent violation is subject to the NRC's traditional enforcement process because it had the potential for impacting the NRC's ability to perform its regulatory function. After the problem was identified in early 2005, the licensee submitted a revised head drop analysis that the NRC reviewed and subsequently approved; evaluated the Unit 2 replacement vessel head against that analysis; updated its FSAR; and conducted a review to identify other instances where the FSAR may not have been updated.

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

In a letter dated January 29, 2007, a Notice of Violation was issued for a Severity Level III violation of 10 CFR 50.71 (e). There is no civil penalty.
Inspection Report# : 2006011 *(pdf)*

Significance: G Dec 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Replacement Reactor Vessel Head Design Deficiencies
The inspectors identified a non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion III, "Design

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

The inspectors concluded that the finding is greater than minor because it was associated with the design control attribute of the Initiating Events Cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown. Consultation with the Region III Senior Reactor Analysts determined that reactor vessel head drop issues were not suitable for the Significance Determination Process analysis. Therefore, this finding has been reviewed by NRC management and is determined to be a Green finding, of very low significance. The inspectors also determined that a primary cause of this finding is related to the cross-cutting area of human performance.
Inspection Report# : 2006011 *(pdf)*

Significance: G Dec 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Design Control for a Flooding Barrier During a Plant Modification
The inspectors identified a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion III, "Design Control," having very low safety significance for the failure to maintain flooding barriers after drilling holes and installing conduit from the containment facade buildings to the auxiliary building during modification MR 04-013 "Charging Pump Variable Frequency Drive (VFD) Installation." As part of corrective actions, the licensee properly sealed the openings. The issue was entered into the corrective action program.

The finding is greater than minor because it was associated with the design control and flood hazard attributes of the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. A flood in the auxiliary building could affect safety-related equipment and result in an upset of plant stability. Although the finding involved the degradation of a flooding barrier, the volume of any potential flooding was judged, based on the size of the hole, to be bounded by the existing internal flooding analysis for the auxiliary building, as well as the licensee's probabilistic risk assessment; hence, the finding screened as very low safety significance. This finding has a cross-cutting aspect in the area of human performance because resources were not provided to ensure accurate and up-to-date work packages for implementation of the modification.
Inspection Report# : 2006013 *(pdf)*

Significance: G Dec 31, 2006
Identified By: NRC
Item Type: FIN Finding
Inadequate Contractor Oversight Which Resulted in Damage to a Unit 2 Steam Generator Vent Line
A finding of very low safety significance was self-revealed on November 14, 2006, when unqualified contract crane technicians operated the Unit 2 polar crane and damaged the 'B' steam generator vent line with the main hook of the crane. The reactor was shutdown at the time of the event. As part of corrective actions, the licensee removed authorization for the technicians to operate the crane, ensured necessary procedural controls were implemented, and evaluated the damaged vent line. The issue was entered into the corrective action program. Subsequently, plant engineers concluded that the vent line remained operable, but degraded.

This finding is greater than minor because if left uncorrected it would become a more significant safety concern in that a significant upset of plant stability would have occurred had the crane hook damaged other, safety-related equipment. In addition, the finding is associated with the human performance attribute of the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Because the transient initiator contributor was main steam vent piping damage, which did not contribute to both the likelihood of a reactor trip and

the likelihood that mitigation equipment or functions would not be available, the finding is considered to be of very low safety significance. The finding has a cross-cutting aspect in the area of human performance because the licensee's work practices failed to ensure adequate supervisory and management oversight of contractor work activities.
Inspection Report# : 2006013 *(pdf)*

Significance: G Dec 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedural Controis for Manually Operated Breakers Located in Certain Control Panels
A finding and associated non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," having very low safety significance was self-revealed on October 16, 2006, during the out-of-service tagging of a manually operated breaker (MOB) in the Unit 2 control panel. The reactor was shutdown at the time of the event but at normal operating pressure and temperature. During the tagging, an adjacent breaker was inadvertently repositioned resulting in the opening of the pressurizer power-operated relief valve (PORV). About 63 gallons of reactor coolant were released through the valve to the pressurizer relief tank before operators repositioned the breaker and the valve re-closed. The released was categorized as a Notification of Unusual Event. The mispositioning was caused by a lack of adequate procedural controls for working in the control panels and a lack of knowledge by personnel as to the minimal force required to open the MOBs. As part of corrective actions, the licensee replaced or protected the most risk significant MOBs, trained workers on the operating sensitivity of the breakers, and established controls governing work in the control panels around sensitive equipment. The issue was entered into the corrective action program and the licensee performed a root cause evaluation for this event.

This finding is greater than minor because if left uncorrected it would become a more significant safety concern in that the inadvertent re-positioning of other similar breakers in the main control room control panels would significantly upset plant stability. In addition, the finding is associated with the procedure quality and human performance attribute of the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Because attributes such as core heat removal, inventory control, power availability, containment control, and reactivity guidelines were met, the finding screened as (Green) having very low safety significance. The finding has a cross-cutting aspect in the area of human performance because the licensee's control of work failed to incorporate into planned work activities job site conditions, including environmental conditions which may impact human performance, and the human-system interface, that is, the operator interface with the breakers in the close confines of the control panels.
Inspection Report# : 2006013 *(pdf)*

Mitigating Systems

Significance: G Sep 30, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Service Water System Microbiologically-Induced Corrosion through-Wall Leak Due to Inadequate Corrective Actions
A self-revealing finding and associated NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," was identified for the failure to take prompt corrective action for microbiologically-induced corrosion (MIC) of the service water (SW) piping. Specifically, the SW Inservice Inspection Program failed to identify SW pipe thinning prior to MIC causing a through-wall leak because the non-destructive examination method used, specifically radiography, was inadequate for detecting MIC. The limited ability for identifying MIC with radiography was a known problem and was previously documented in the licensee's corrective action program in 2005; however, prompt corrective actions were not taken. For the 2007 leak, the licensee took immediate corrective actions to replace the leaking SW pipe and proposed changes to the SW Inservice Inspection Program that would enhance the site's ability to identify potential sources of MIC in the SW system and correct the program issues initially identified in 2005.

The issue is greater than minor because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. In addition, if left uncorrected, the finding would become a more significant safety concern. The finding is of very low safety significance (Green) because there was no design deficiency, no actual loss of safety function, no single train loss of safety function for greater than the Technical Specification (TS) allowed outage time, and no risk due to external events. Additionally, the inspectors determined that the primary cause of the finding is related to the cross-cutting area of problem identification and resolution. Specifically, under the component of corrective action program, the licensee failed to take appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity
Inspection Report# : 2007004 *(pdf)*

Significance:  Sep 30, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Correct Previous Indication of Degraded Oil in Component Cooling Water Pump
The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion XVI, “Corrective Action,” for the failure to implement prompt corrective actions for the degraded oil conditions initially identified with safety-related Component Cooling Water (CCW) Pump 1P-11B in March 2007. Following an additional oil sample with anomalous results in July 2007, the licensee declared the pump inoperable and performed troubleshooting and repair of CCW Pump 1P-11B. The licensee entered the issue into their corrective action program and took immediate corrective actions. The licensee continued to evaluate the causes and corrective actions to address this finding at the end of the inspection period.

The finding is greater than minor because it could reasonably be viewed as a precursor to a significant event. Specifically, the failure to promptly correct the cause of the oil degradation in a timely manner in March 2007 could have resulted in the failure of the CCW pump. Additionally, the finding is associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective to ensure the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The finding is of very low safety significance (Green) because there was no design deficiency, no actual loss of safety function, no single train loss of safety function for greater than the TS allowed outage time, and no risk due to external events. Additionally, the inspectors determined that the primary cause of the finding is related to the cross-cutting area of problem identification and resolution. Specifically, under the component of corrective action program, the licensee failed to take appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity
Inspection Report# : 2007004 *(pdf)*

Significance:  Sep 30, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Incorrect Calibration Methods for Engineered Safeguards Actuation System Instrumentation, Lead/Lag Time Constants for Steam Line Pressure
A self-revealing finding and associated NCV of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” was identified for the failure to have adequate maintenance procedures for performing calibration of the Engineered Safeguards Feature Actuation System (ESFAS) instrumentation steam pressure compensator modules. Specifically, instructions were not correct or sufficiently detailed to determine mathematical values from graphical displays of circuit output used in performing the subject calibrations.

The finding is greater than minor because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding is of very low safety significance because there was no design deficiency, no actual loss of safety function, no single train loss of safety function for greater than the TS allowed outage time, and no risk due to external events. The inspectors also determined that the primary cause of this finding is related to the cross-cutting area of human performance. Specifically, under the component of resources, the licensee failed to ensure complete, accurate and up-to-date procedures for calibration of the ESFAS instrumentation steam pressure compensator modules

Inspection Report# : 2007004 *(pdf)*

Significance: G Sep 30, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Account for MOV Stalling Delays for ECCS Response Time Analysis

Inspection Report# : 2007004 *(pdf)*

Significance: G Jul 13, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Promptly Correct Non-Compliant Sprinkler Heads in the EDG Rooms
The inspectors identified a finding of very low safety significance and an associated NCV of the PBNP's Operating License for failure to take prompt corrective action for a condition adverse to quality. Specifically, in July 2002, the licensee identified that four sprinkler heads located in Fire Zones 308 and 309 (i.e., emergency diesel generator (EDG) rooms G-01 and G-02, respectively) were not in compliance with the NFPA 13-1966 Code, Section 3066. The violation was entered into the licensee's CAP as 01101421, "Untimely Corrective Actions," dated July 12, 2007, to increase the priority of the modification that was to correct the sprinkler heads' non-compliant condition. The finding has a cross-cutting aspect in the area of problem identification and resolution because the licensee did not take appropriate corrective action to address the safety issue in a timely manner commensurate with its safety significance and complexity.

This finding was more than minor because the finding was associated with the protection against external factors (i.e., fire) attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the licensee's failure to promptly correct the lack of return bends condition for four sprinklers heads in the EDG rooms and take appropriate action to restore the operability of these sprinkler heads in a timely manner could have affected the suppression capability of the fire suppression systems in these rooms. The finding was of very low safety significance based on a Phase 2, SDP evaluation completed in accordance with IMC 0609, Appendix F, "Fire Protection Significance Determination Process." (Section 1R05.4b)
Inspection Report# : 2007006 *(pdf)*

Significance: N/A Jul 13, 2007
Identified By: NRC
Item Type: FIN Finding
Failure to Meet Separation Requirements for Redundant Trains
The inspectors identified a violation of 10 CFR Part 50, Appendix R, Section III.G.2, involving the licensee's failure to ensure, in the event of a severe fire, that one redundant train of systems necessary to achieve and maintain hot shutdown (HSD) conditions was free of fire damage. Specifically, in the event of a severe fire in Fire Zone 151 in Fire Area A02, the licensee failed to ensure that cables and/or circuits of one redundant train of charging pumps were adequately protected by a 20-foot separation with no intervening combustibles. The violation was entered into the licensee's corrective action program (CAP) as 01101444, "Compliance with Appendix R, Section III.G.2 in Fire Zone 151," dated July 12, 2007. The licensee initiated compensatory measures and will evaluate the violation during transition to NFPA 805. The inspectors determined there was no cross-cutting aspect to this finding.

This finding was more than minor because the finding was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the licensee's failure to ensure that cables and/or circuits of one redundant train of charging pumps were adequately protected, by maintaining a 20-foot separation with no intervening combustibles, left the charging pumps' cables and/or circuits vulnerable to fire damage and did not ensure the availability and reliability of systems that respond to initiating events. Because the NRC-identified violation was a circuit-related finding that was not associated with a finding of high safety significance (Red), the inspectors evaluated the violation in accordance with the four criteria established by Section A of the NRC's Interim Enforcement Policy Regarding Enforcement Discretion for Certain Fire Protection Issues (10 CFR Part 50.48) for a licensee in NFPA 805 transition. The inspectors determined

that for this violation: (1) the licensee would have identified the violation during the scheduled transition to 10 CFR Part 50, Section 48(c); (2) the licensee had established adequate compensatory measures within a reasonable time frame following identification and would correct the violation as a result of completing the NFPA 805 transition; (3) the violation was not likely to have been previously identified by routine licensee efforts; and (4) the violation was not willful. As a result, the inspectors concluded that the violation met all four criteria established by Section A, and the NRC is exercising enforcement discretion to not cite this violation in accordance with the NRC's Enforcement Policy. (Section 1R05.2b.1)
Inspection Report# : 2007006 *(pdf)*

Significance: G Jun 30, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Implement Work Instructions for Preventive Maintenance on Safety-Related Battery Chargers
The inspectors identified a NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for failure to accomplish required preventive maintenance resulting in the D-108 Station Battery output becoming unstable on several occasions. In January 2007, the D-09 Battery Charger also failed as a result of failure to perform scheduled preventive maintenance. The licensee initiated condition reports, took immediate corrective actions to repair the chargers and is performing an apparent cause evaluation.

The inspectors concluded that the finding is greater than minor because if left uncorrected, the finding would become a more significant safety concern, in that, failures of safety-related battery chargers can significantly challenge the vital 125V DC system. In addition, the finding is associated with the equipment performance attribute of the Mitigating System cornerstone and affects the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences, (such as, core damage). Since the finding is not a loss of system safety function and is not an actual loss of safety function of a single train for greater than its Technical Specification allowed outage time, the finding is considered to be of very low safety significance (Green). The inspectors also determined that the primary cause of this finding is related to the cross-cutting area of human performance (H.3(b)). Specifically, the licensee did not appropriately coordinate work activities to support long-term equipment reliability and maintenance scheduling, which was not more preventive than reactive, as critical preventative maintenance for battery chargers was not performed.
Inspection Report# : 2007003 *(pdf)*

Significance: G Jun 30, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Program for Preventive Maintenance of Breaker Mechanism Operated Control Switches
The inspectors identified a NCV of 10 CFR Part 50.65, "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," of very low safety significance (Green), for the failure to incorporate available internal and external Operating Experience (OE) pertaining to 4.16kV switchgear cubicle Mechanism Operated Control (MOC) switch assemblies. Preventive maintenance procedures for Westinghouse 4.16kV switchgear cubicles had not been revised to incorporate important MOC switch linkage measurements, adjustments and verification of contact position. The licensee initiated condition reports and is revising procedures to incorporate required preventive maintenance.

The inspectors concluded that the finding is greater than minor, because, if left uncorrected, the finding would become a more significant safety concern. The finding also affects the procedure quality attribute of the Mitigating System cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (such as, core damage). Since the finding is not a loss of system safety function and is not an actual loss of safety function of a single train for greater than its Technical Specification allowed outage time, the finding is considered to be of very low safety significance (Green). Additionally, the inspectors determined that the contributing cause of the finding is related to the cross-cutting area of Problem Identification and Resolution within the component of OE (P.2(b)). The licensee did not implement and institutionalize OE through changes to station processes and procedures, as appropriate preventive maintenance procedures and routines were not established.
Inspection Report# : 2007003 *(pdf)*

Significance: G Jun 30, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to have Procedures Appropriate to the Circumstances for Terry Turbine Overhauls
The inspectors identified a finding of very low safety significance and a non-cited violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to ensure that procedures associated with the maintenance of the TDAFW turbines were appropriate to the circumstances. Specifically, the licensee's maintenance overhaul procedure did not address the following significant issues: 1) specify acceptance criteria and as-left requirements for thrust bearing axial clearance; 2) specify instructions to ensure the proper setting and critical dimensions for the proper pump to turbine coupling stretch; 3) correctly establish the turbine to wheel nozzle lap setting; and 4) specify proper placement of insulation on the turbine. The licensee entered the issue into their corrective action program and took immediate corrective actions. At the end of the inspection period the licensee continued to evaluate the causes and corrective actions to address this finding.

The finding was more than minor because, if left uncorrected, the issue would have become a more significant safety concern. In addition, it affected the Mitigating Systems attributes of equipment performance availability and reliability, and maintenance procedure quality, as well as the Mitigating Systems cornerstone objective of ensuring the reliability of systems. The inspectors determined this programmatic finding was not a design qualification deficiency resulting in a loss of function per Generic Letter 91-18, did not represent an actual loss of safety function of a system or train of equipment, and was not potentially risk-significant due to a seismic, fire, flooding, or severe weather initiating event. Therefore, the finding was considered to be of very low safety significance (Green). The primary cause of this finding was related to a cross-cutting aspect in the area of human performance because the licensee failed to ensure that procedures were adequate and accurate to assure nuclear safety (H.2(c)).
Inspection Report# : 2007008 *(pdf)*

Significance: G Jun 30, 2007
Identified By: NRC
Item Type: FIN Finding
Failure to have Specific Formal Training for Maintenance Craft on Terry Turbine Overhauls
The inspectors identified a finding of very low significance (Green) with no associated violation for the failure to provide appropriate training for maintenance personnel performing overhauls on the TDAFW pump turbines. Specifically, while maintenance personnel received training on some of the individual components associated with a turbine, the mechanic-electrician (mechanical) training program did not require specialty task training for turbine overhauls. In addition, this was contrary to standard industry guidelines for training and qualification of maintenance personnel. The licensee entered the issue into their corrective action program and took immediate corrective actions. At the end of the inspection period the licensee continued to evaluate the causes and corrective actions to address this finding.

The finding was more than minor because, if left uncorrected, the issue would have become a more significant safety concern. In addition, it affected the Mitigating Systems attributes of equipment performance availability and reliability, and to pre-event human error, as well as the Mitigating Systems cornerstone objective of ensuring the reliability of systems. The inspectors determined this programmatic finding was not a design qualification deficiency resulting in a loss of function per Generic Letter 91-18, did not represent an actual loss of safety function of a system or train of equipment, and was not potentially risk-significant due to a seismic, fire, flooding, or severe weather initiating event. Therefore, the finding was considered to be of very low safety significance (Green). The primary cause of this finding was related to a cross-cutting aspect in the area of human performance because the licensee failed to assure that training of personnel was adequate to assure nuclear safety (H.2(b)).
Inspection Report# : 2007008 *(pdf)*

Significance: G Jun 30, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to have Procedures Appropriate to the Circumstances for the Analysis and Sampling of Safety-Related Turbine and Pump Oil
The inspectors identified a finding of very low safety significance (Green) and a non-cited violation of 10 CFR 50,

Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” for the failure to adequately implement an oil analysis program for the TDAFW pump. The inspectors identified that the licensee failed to implement sampling guidelines using industry standards or provide an adequate justification for not performing the samples at reasonable intervals. The licensee entered the issue into their corrective action program and took immediate corrective actions. At the end of the inspection period the licensee continued to evaluate the causes and corrective actions to address this finding.

The finding was more than minor because if left uncorrected, the failure to have an adequate procedure for lubrication could result in the TDAFW pump being degraded without the knowledge of the licensee. The inspectors determined the finding did not result in an actual loss of safety function of a system or train of equipment; therefore, the finding was considered to be of very low safety significance (Green). The primary cause of this finding was related to a cross-cutting aspect in the area of human performance because the licensee did not ensure that procedures were adequate and accurate to assure nuclear safety (H.2(c)).
Inspection Report# : 2007008 *(pdf)*

Significance: G Jun 30, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Implement a Quarantining Process
The inspectors identified a finding of very low safety significance (Green) and a non-cited violation of 10 CFR 50, Appendix B, Criterion V, “Instructions, Procedures, and Drawings,” for the failure to adequately quarantine a component for subsequent causal analysis. The inspectors identified that the licensee failed to implement procedural controls to quarantine degraded components during troubleshooting and maintenance activities which resulted in the loss of evidence for causal analysis. The licensee entered the issue into their corrective action program, implemented interim quarantine controls, and issued a new Procedure, NP 1.1.17 “Quarantine of Areas, Equipment, and Records.”

The finding was more than minor because if left uncorrected, the failure to properly quarantine items could become a more significant safety concern, since the failure to do so could impede the identification of causes for conditions adverse to quality and prevent the implementation of appropriate corrective actions. The inspectors determined the finding was not a design qualification deficiency resulting in a loss of function per Generic Letter 91-18, did not represent an actual loss of safety function of a system or train of equipment, and was not potentially risk-significant due to a seismic, fire, flooding, or severe weather initiating event. Therefore, the finding was considered to be of very low safety significance (Green). The primary cause of this finding was related to a cross-cutting aspect in the area of human performance because the licensee did not ensure that procedures were adequate and accurate to assure nuclear safety (H.2(c)).
Inspection Report# : 2007008 *(pdf)*

Significance: G Dec 15, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedure for Identifying Degraded Piping
The inspectors identified a finding of very low safety significance involving areas of service water piping where microbiologically induced corrosion was identified but the wall thicknesses of the pipe in those areas were not measured. An NCV of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," was associated with this finding for failure to prescribe directions to ensure all areas of degradation identified were characterized. The licensee performed radiographic examination of safety-related piping in the service water system to identify and determine the extent of degradation and to take appropriate corrective action to maintain operability. However, the radiographic technique used did not provide information on the most severe (deepest) degradation in the section of pipe examined. Without this information, the licensee’s evaluation of the piping integrity, actions to perform inspections of additional pipe segments, and actions to perform more frequent inspection on the same section could be inappropriate. The licensee entered this finding into its corrective action program for evaluation.

This finding is greater than minor because it was associated with the procedure quality attribute of the Mitigating System cornerstone and affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the procedure did not require adequate characterization of the extent of microbiologically induced corrosion (MIC) in

service water (SW) piping to ensure that MIC degradation would not result in failure of the SW piping pressure boundary. Because there were no active through-wall leaks in this system and no known degradation which exceeded the Code minimum wall thickness, the finding is of very low safety significance.
Inspection Report# : 2006015 *(pdf)*

Significance: G Dec 15, 2006
Identified By: NRC
Item Type: FIN Finding
Inadequate Extent-of-Condition Review
The inspectors identified a finding of very low safety significance with no associated violation for an inadequate extent-of-condition review for boric acid leakage found in the last quarter of 2005 on the safety injection-850 valves (containment recirculation sump isolation valves). During the current inspection, the inspectors identified boric acid leakage on other valves that the licensee had not evaluated. The licensee entered this finding into its corrective action program.

This finding is greater than minor because failing to evaluate boric acid leakage would lead to component failure and had the potential to become a more significant safety concern. Because no safety function was lost, no Technical Specification train or maintenance rule safety function was lost, and there was no external event concerns. The finding is of very low safety significance. The inspectors also determined that a primary cause of this finding was related to the cross-cutting area of PI&R within the component of the corrective action program and the aspect of thorough evaluation of problems.
Inspection Report# : 2006015 *(pdf)*

Barrier Integrity

Significance: G Jun 30, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish Appropriate Test conditions for Leak-Rate Testing Outside Containment
The inspectors identified a NCV of 10 CFR Part 50, Appendix B, Criterion V, “Instructions, Procedures and Drawings,” for the failure to have procedures appropriate to the circumstances, which established the appropriate test conditions for primary coolant sources testing outside containment. Specifically, testing procedures, which satisfied Technical Specification 5.5.2, “Primary Coolant Sources Outside Containment,” did not ensure that residual deposits of boric acid on the containment spray, high head and low head safety injection systems were removed, so that active system fluid leaks could be identified as required during the tests. The issue was entered into the licensee’s corrective action program (CAP), the licensee took immediate corrective actions, and performed a causal evaluation at the end of this inspection.

The inspectors evaluated the finding using IMC 0609, “Appendix A, “Determining the Significance of Reactor Inspection Findings for At-Power Situations.” The finding screened as very low safety significance (Green) because the finding did not: represent the degradation of the radiological barrier function provided for the auxiliary building; represent a degradation of the barrier function of the control room; and did not represent an actual open pathway in the physical integrity of reactor containment. The inspectors also determined that the primary cause of this finding is related to the cross-cutting area of human performance (H.2(c)). Specifically, under the component of resources, the licensee failed to ensure that procedures were adequate and accurate to assure nuclear safety.
Inspection Report# : 2007003 *(pdf)*

Significance: G Mar 31, 2007
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Design Margin for Control Room Emergency Filtration Fan Thermal Overload Trips
A non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion III, “Design Control,” having very low safety

significance was self-revealed for the failure to maintain sufficient design margin for the expected running currents of the control room emergency filtration system fans to their thermal overload trip settings. This occurred due to design errors in a modification that replaced the fans in October 2006. Control Room Emergency Filtration System (CREFS) Fan W-1-B tripped on a breaker thermal overload during surveillance testing in February 2007 with low outside ambient air temperature (approximately negative 11°Fahrenheit). Licensee analyses also demonstrated that a trip of fan W-14A could have occurred for the combination of low ambient temperature and degraded grid voltage. The licensee took immediate corrective actions to replace the breaker thermal overloads with thermal overloads of a higher setting as a result of troubleshooting and evaluations performed following the trip of the W-14B fan. The issue was entered into the licensee's corrective action program and a root cause evaluation was subsequently performed.

The finding is greater than minor because it is associated with the attribute of maintaining radiological barrier functionality of the control room and affected the Barrier Integrity cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. Loss of CREFS fans during a release could result in increased dose to the operators in the control room potentially affecting control room habitability. Although the finding involved a potential failure of the CREFS to provide its filtration function, the simultaneous occurrence of low outside air temperature, degraded grid voltage, and a radiological release is of very low probability. The finding for the failure to provide the correct thermal overload trip setting is a design deficiency that has a cross-cutting aspect in the area of human performance in that resources were not effective in maintaining long-term plant safety by maintenance of design margins.
Inspection Report# : 2007002 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance:  Dec 15, 2006
Identified By: NRC
Item Type: FIN Finding
Untimely Completion of Three RCEs Involving Radiation Protection
The inspectors identified a finding of very low safety significance for the licensee's untimely completion of three root cause evaluations in the radiation protection area. The 3 evaluations were completed in 8-9 months instead of the 30 days stated in the corrective action program administrative procedure. Several due date extensions had been approved by station management early in the conduct of the evaluations and they eventually went overdue before they were completed. No violation of NRC requirements was identified. The licensee entered this finding into its corrective action program for evaluation.

The inspectors concluded that the issue of allowing the completion time for the three root cause evaluations to exceed the 30-day limit in the procedure is a finding that if left uncorrected would become a more significant safety concern, and thus, is a finding that is greater than minor. Because the finding did not involve an overexposure, a substantial potential for an overexposure, and a compromise of the ability to assess dose, it is of very low safety significance. The inspectors also determined that a primary cause of this finding was related to the cross-cutting area of human performance within the component of work control and the aspect of coordinating work activities.
Inspection Report# : 2006015 *(pdf)*

Public Radiation Safety

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Significance: N/A Dec 31, 2006
Identified By: NRC
Item Type: AV Apparent Violation
NRC to Review Items in Confirmatory Order Dated January 3, 2007, for Employment Discrimination Settlement
In a letter dated January 3, 2007 (ADAMS Accession Number ML063630336), the NRC issued a Confirmatory Order to the licensee as part of a settlement agreement through the NRC's Alternative Dispute Resolution (ADR) process. The NRC investigated an alleged violation of 10 CFR 50.7, "Employee Protection," to determine whether a senior reactor operator was the subject of retaliation for raising a nuclear safety concern in the licensee's corrective action program. This issue was resolved through the NRC's ADR program and will be tracked as Apparent Violation (AV) 05000266/2006013-05; 05000301/2006013-05 pending NRC review of the licensee's completion of items specified in the Confirmatory Order.
Inspection Report# : 2006013 *(pdf)*

Significance: N/A Dec 15, 2006
Identified By: NRC
Item Type: FIN Finding
Biennial Problem Identification and Resolution Inspection
The team concluded that the licensee's program for the identification and resolutions of problems was functioning appropriately and had improved since the previous NRC PI&R expanded team inspection conducted in late 2005. The licensee was identifying plant problems at an appropriately low level, although, the inspectors noted that the threshold for entering wall thinning issues into the program was high relative to the level at which other issues were entered. The inspectors identified three findings in the area of prioritization and evaluation of issues: one for an inadequate procedure for inspection of service water pipe, one for an inadequate extent-of-condition review for boric acid corrosion on valves; and one for untimely completion of three root cause evaluations. In the area of effectiveness of corrective actions, the inspectors concluded that a licensee-developed training course on engineer rigor was well developed and implemented and that corrective actions for three previous issues may need additional management attention to ensure timely completion. The licensee's use of operating experience and self-assessments and audits was found to be appropriate. From interviews conducted during this inspection, the inspectors concluded that workers at Point Beach felt free to input nuclear safety findings into the corrective action program.
Inspection Report# : 2006015 *(pdf)*

Last modified : December 07, 2007