

Point Beach 1

4Q/2007 Plant Inspection Findings

Initiating Events

Significance:  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:  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: 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*)

Mitigating Systems

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Significance: Dec 14, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Incorrect Factor of Safety Specified in Design Evaluation of Unit 1 SGBD HX Platform

The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," that was of very low safety significance involving a calculation that designed the Unit 1 Steam Generator Blowdown (SGBD) Heat Exchanger (HX) Platform to withstand a load from a postulated pipe whip of the condensate return line resulting from a High-Energy Line Break (HELB). The load from a postulated pipe whip applied to the platform was evaluated in calculation PBNP-994-10-S01, "SGBD HX Platform Mod. For Addition of Pipe Rupture Restraint for Condensate Return Line" which was approved on April 28, 2007. As a result of this calculation, the design function of the Unit 1 SGBD HX Platform was revised to hold and maintain the steam generator blowdown heat exchangers and condensate return line in position and assure that the platform did not fall onto the safety related Refueling Water Storage Tank (RWST) during a safe shutdown earthquake and a HELB simultaneously. Specifically, the licensee failed to correctly use the original design anchor bolt safety factor in the supporting calculation. This issue was entered into the licensee's corrective action program as condition report CAP 1118144.

The issue was more than minor because the calculation error would be expected to necessitate extensive calculation rework and possibly a modification in order to demonstrate that the platform meets design acceptance limits commensurate with those applied to original design. The finding screened as having very low safety significance (Green) because the inspectors answered "yes" to question 1 under the Mitigating Systems Cornerstone column of the Phase 1 worksheet. Specifically, the platform remained "operable but degraded". The cause of the finding was related to the cross-cutting element in Human Performance, Work Practices because the licensee did not ensure supervisory and management oversight of work activities, including contractors, such that nuclear safety is supported (item H.4(c) of IMC 0305). The licensee had failed to correctly use the original design anchor bolt safety factor in all three revisions of the design basis calculation.

Inspection Report# : [2007007](#) (pdf)

Significance:  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)

G**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*)

G**Significance:** 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*)

G**Significance:** 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 sprinkler 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: 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: Jun 30, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Appropriately manage an Orange Risk Condition

The inspectors identified a NCV of 10 CFR 50.65(a)(4), "Requirements for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants," after the licensee failed to adequately manage the risk associated with the installation of the Unit 1 Steam Generator Nozzle Dams, which is a reduced inventory and Orange Qualitative Risk Condition. Specifically, the contingency plan stated, in part, that an uncontrolled reactor coolant system inventory loss would be mitigated with the use of Shutdown Emergency Procedure SEP-2, "Cold Shutdown LOCA." However, the inspectors noted that certain critical equipment required in SEP-2 was not available and no contingencies were established for the unavailable equipment. The licensee initiated condition reports and took immediate corrective actions and planned additional corrective actions based on a causal evaluation.

The finding was greater than minor because the finding affected the cornerstone objective, to ensure the availability of systems that respond to initiating events to prevent undesirable consequences, and the attributes of configuration control and equipment performance, due to the shutdown equipment lineup and unavailability of equipment. In addition, the finding was related to the licensee's failure to effectively manage significant compensatory measures for this Orange Risk condition. The finding screened as very low safety significance (Green), because the finding did not meet the criteria for a Phase 2 or Phase 3 Analysis, as specified in IMC 0609 Appendix G, Attachment 1, Checklist 1, "PWR Hot Shutdown Operation: time to Core Boiling < 2 Hours." The inspectors also determined that the primary cause of this finding is related to the cross-cutting area of human performance (H.3(a)). Specifically, under the component of work control, the licensee did not appropriately plan work activities by incorporating the need for planned contingencies and compensatory actions, ensuring that equipment relied upon for contingencies remained available.

Inspection Report# : [2007003](#) (*pdf*)

Significance:  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:  Jun 30, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Identify and Correct Previous Indications of High Bearing Temperatures

The inspectors identified a finding involving a non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," having very low safety significance (Green) for the licensee's failure to identify and implement prompt corrective actions for the conditions which caused outboard bearing high temperature alarms during: the Unit 1 Turbine-Driven Auxiliary Feedwater (TDAFW) pump post-maintenance test (PMT) performed on May 1, 2007; the Unit 1 TDAFW pump PMT performed on May 6, 2007; and the Unit 2 TDAFW pump PMT performed on November 17, 2006. The licensee performed trouble shooting and repair of the Unit 1 TDAFW pump and confirmed operability of the Unit 2 TDAFW pump with needed compensatory actions. 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 it could reasonably be viewed as a precursor to a significant event. Specifically, the failure to identify and investigate the cause of the high bearing temperature alarms could potentially result in failure of the TDAFW pumps. Additionally, the finding 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. Failure to identify and promptly correct the conditions which caused the high bearing temperature alarms was a condition adverse to quality and was a corrective action program issue that was determined to be a licensee performance deficiency of very low safety significance (Green). The primary cause of this finding was related to a cross-cutting aspect in the area of problem identification and resolution for the failure to implement a corrective action program with a low threshold for identifying issues completely, accurately and in a timely manner commensurate with their safety significance (P.1(a)).

Inspection Report# : [2007008](#) (*pdf*)

Significance:  Jun 30, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Appropriately Assess the Operability of the Unit 1 Turbine Driven Auxiliary Feedwater Pump on June 9, 2007

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 assess Operability in accordance with plant procedures. The inspectors identified that the licensee failed to implement procedural requirements regarding the immediate assessment of operability on June 9, 2007 for the Unit 1 TDAFW pump outboard turbine bearing high temperatures. The licensee took corrective actions which included re-performing testing to evaluate bearing stabilization temperatures and briefing of the operations crews on this issue. 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 properly assess operability could result in the TDAFW pump being degraded, and possibly inoperable for more than the allowed outage time in accordance with Technical Specifications with no action being taken. The finding is of very low safety significance since the inadequate operability call did not result in exceeding the allowed outage time of Technical Specifications before action was taken. The primary cause of this finding was related to a cross-cutting aspect in the area of human performance because the licensee failed to demonstrate that nuclear safety was an overriding priority. Specifically, the licensee failed to make safety-significant or risk-significant decisions using a systematic process for operability determinations, especially when faced with uncertain or unexpected plant conditions, to ensure safety is maintained (H.1(a)).

Inspection Report# : [2007008](#) (*pdf*)

Significance:  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*)

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Significance: 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*)

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Significance: 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*)

G**Significance:** 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*)

Barrier Integrity

G**Significance:** 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*)**G****Significance:** 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

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*)

Last modified : February 04, 2008