Palisades
3Q/2006 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Power Operations with One Rod Unlatched Due to an Inadequate Procedure
A self-revealed Non-Cited Violation (NCV) of Technical Specification (TS) 5.4 of very low safety significance was identified on May 11, 2006, when abnormal flux distribution prevented the licensee from continuing power ascension. The licensee determined a rod was not latched. The licensee violated TS 5.4, "Procedures," during performance of rod latching activities. The licensee's procedures were not adequate to latch the rod, and ensure the rod was latched prior to power operations. The licensee entered the item into the corrective action program. This finding also affected the cross cutting aspect of human performance. Immediate corrective actions included shutting down the reactor and latching the rod.

The inspectors determined the finding is more than minor since the finding affected cornerstone objectives for both initiating events and mitigating systems. Specifically, the inserted rod reduced available shutdown reactivity and shifted core flux to reduce margin to thermal limits. The finding was of very low safety significance because power remained very low, less than 25 percent, core thermal limits were not violated, and adequate shutdown margin existed.
Inspection Report# : 2006004*(pdf)*

Significance: G Jun 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Polar Crane Struck Jib Crane
A self-revealed NCV of TS 5.4 occurred on April 22, 2006, when the polar crane bridge struck and severely damaged the jib crane. The licensee violated TS 5.4 for failing to have adequate procedures in place during maintenance that could affect safety-related equipment. The licensee entered the finding into their corrective action program. Immediate corrective actions included safely lowering attached loads, removing the crane from service, and inspecting affected equipment. This finding affected the cross cutting aspect of human performance.

The inspectors determined the finding is more than minor since the finding could reasonably be seen as a precursor to more significant events. Specifically, failure to control load movements could result in heavy load drops. The finding is of very low safety significance since no loads were dropped and the damage that did occur did not affect inservice safety systems.
Inspection Report# : 2006004*(pdf)*

Significance: G Mar 31, 2006
Identified By: NRC
Item Type: FIN Finding
Moisture Separator Reheater Relief Valve Could Not Be Reseated
The inspectors determined that a finding of very low safety significance (Green) was self-revealed when a Moisture Separator Reheater relief valve failed to reseat during testing. This failure resulted in a slight power rise due to the additional steam demand. Although the operations staff believed a method existed to manually close the valve, a manual method did not exist and a power reduction was needed to reseat the valve. This finding also affected the cross-cutting area of human performance. The licensee stopped use of the procedure and entered the item into their corrective action program.

The inspectors determined that not having adequate planning, contingency plans and procedures in place to reseat the relief valve is more than minor because the failure affected the initiating event cornerstone attribute of procedure quality and

increased the likelihood an initiating event due to the increased steam demand of an unseated relief valve. The finding is of very low safety significance since the event did not impact LOCA initiators, mitigation equipment or external event initiators. Corrective action included placing a hold on all relief valve testing until completion of a formal cause evaluation as well as placing this in the CAP system. No violation of NRC requirements occurred.
Inspection Report# : 2006002*(pdf)*

Significance: G Dec 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Spent Fuel Pool Crane Manipulated Outside bounds of Approved Procedures
The inspectors identified one finding of very low safety significance and an associated non-cited violation when plant personnel performed activities outside the scope of the work package used to inspect the spent fuel pool crane. On October 11, 2005, while raising a dry fuel storage (DFS) cask from the spent fuel pool following loading of the cask, the emergency brake on the crane engaged. The engaged emergency brake stopped movement of the load resulting in suspension of the load partially out of the pool. During troubleshooting activities, the workers exceeded the bounds of the approved work package by manipulating the brake release. This finding represented a violation of the license by performing work contrary to requirements specified by NUREG-0612. Corrective actions included reinforcing site standards for procedural adherence as well as successfully lowering the DFS cask. The licensee entered the item in the Corrective Action Program.

The finding was not suitable for evaluation under the SDP. However, because the actions by the worker did not result in any load motion and both crane brakes remained set, NRC management determined the finding to be of very low safety significance (Green). This finding also affected the cross cutting area of human performance.

Inspection Report# : 2005012*(pdf)*

Mitigating Systems

Significance: G Sep 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
The licensee failed to demonstrate that the performance or condition of High Pressure Injection System had been effectively controlled per 10 CFR 50.65
The inspectors identified a finding of very low safety significance (Green) and an associated Non-Cited Violation of 10 CFR 50.65 "Requirements for monitoring effectiveness of maintenance at nuclear power plants." Specifically, contrary to 50.65(a)(2), the licensee failed to demonstrate that the performance of condition of the HPSI System had been effectively controlled through performance of appropriate maintenance, and did not place the system in 50.65(a)(1) status when system performance deteriorated. The licensee subsequently placed the HPSI system in 50.65(a)(1) status and entered the finding into their corrective action program.

The inspectors determined that not placing the system in (a)(1) status when performance deteriorated is more than minor because it matched an example in IMC 0612, Appendix E, "Examples of Minor Violations," as being more than minor. The finding is of very low safety significance because the finding did not result in loss of a safety function.
Inspection Report# : 2006006*(pdf)*

Significance: G Sep 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Control Valve CV-3070 Failed to Stroke
A Green Non-Cited Violation was self-revealed on March 29, 2006, when control valve CV-3070, left train HPSI sub-cooling valve for HPSI pump P-66B, failed to open during preventive maintenance. Subsequent investigation by the licensee identified that a design change had removed a support for the valve. The removal of this support caused the valve

to bind. The finding is a violation of 10 CFR 50, Appendix B, Criterion III. The licensee entered the finding into the corrective action program, repaired the valve and added additional support to prevent recurrence.

The inspectors concluded that the issue is more than minor because it affected the operability, reliability, and availability of a mitigating system. The inspectors concluded a phase 3 assessment was required based on the results of phase 1 and 2 assessments. Following a phase 3 assessment, the Senior Reactor Analyst concluded that the finding is of very low safety significance.
Inspection Report# : 2006006*(pdf)*

Significance: G Jun 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Comply with 10 CFR 50.59 for P-5 Removal from the FSAR
The inspectors identified a Severity Level IV NCV of 10 CFR 50.59 for improperly removing commitments to maintain a keep warm pump from the Final Safety Analysis Report (FSAR). The licensee had committed to maintaining this pump in lieu of inspections of the intake structure. The licensee entered the item in the corrective action program and performed immediate corrective actions, including inspections of the intake structure.

The inspectors concluded this finding is more than minor since it impacted the NRC's ability to perform its regulatory function. Specifically, the licensee changed the FSAR in a manner that required prior NRC approval. The finding is a Severity Level IV violation consistent with the NRC Enforcement Policy.
Inspection Report# : 2006004*(pdf)*

Significance: G Mar 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to comply with TS 5.4.1, "Procedures," for an Inadequate Procedure Installing a commercial grade, portable ground detector
The inspectors identified a finding of very low safety significance (Green) when the procedure used to install commercial grade portable ground detection equipment did not provide adequate Class 1E to non-Class 1E separation. During this installation, the licensee did not declare the affected bus inoperable. This finding represented a non-cited violation of Technical Specification (TS) 5.4.1, "Procedures," for an inadequate procedure related to installing a commercial grade, portable ground detector which was not appropriate for the circumstances. The licensee entered the item in the corrective action program and has restricted use of the procedure. The portable ground detection equipment has been removed.

This finding is more than minor because the installation of this temporary equipment impacted the DC bus and made the bus more susceptible to a fault thus degrading a mitigating system function. The finding is of very low safety significance because the improper installation did not result in loss of availability of the bus and only one bus was affected at a time.
Inspection Report# : 2006002*(pdf)*

Significance: G Mar 31, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Properly Test the Emergency Diesel Generators Resulting in Preconditioning
The inspectors identified a finding of very low safety significance (Green) when the Emergency Diesel Generators (EDGs) were unacceptably preconditioned prior to testing. This finding represented a non-cited violation of 10 CFR 50 Appendix B, Criterion XI in that the tests were not performed under suitable environmental conditions. The licensee entered the item in the corrective action program.

This finding is more than minor because unacceptable preconditioning can change the as-found condition of the EDG system and therefore mask potential performance issues. The finding is of very low safety significance due to the limited impact that the preconditioning had on the EDG performance. All indications after the testing was performed with an acceptable test is that the machine performance is currently acceptable.
Inspection Report# : 2006002*(pdf)*

Significance: G Feb 17, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failed Swagelok Fitting on High Pressure Safety Injection Flow Transmitter FT-0312
A finding of very low safety significance was self-revealed on January 4, 2006, when an incorrectly installed swagelok fitting on high pressure safety injection flow transmitter FT-0312 failed. A Non-Cited Violation of 10 CFR 50 Appendix B, Criterion V, "Instructions, Procedures and Drawings," was associated with this finding for the failure to have prescribed instructions when the swagelok fitting was originally installed during field change FC-731 in 1988. Corrective actions included: the swagelok fitting on FT-0312 was repaired and verified to be installed correctly; two other swagelok fittings on high pressure safety injection flow transmitters were disassembled, inspected and repaired as necessary; other swagelok fittings installed in 1988 during field change FC-731 were visually inspected to verify that there was no evidence of leakage. Additional swagelok fittings were scheduled to be disassembled and inspected during the 2006 refueling outage to further address extent of condition.

This finding was more than minor because it was associated with the equipment performance attribute for mitigating systems and the cornerstone objective to ensure the capability of systems that respond to initiating events to prevent undesirable consequences was affected. Specifically, a leak from the failed swagelok fitting on the high pressure safety injection system flow transmitter FT-0312 would have decreased the capability of the high pressure safety injection system to inject water to the reactor core during a small break loss of coolant accident. The finding is of very low safety significance because the high pressure safety injection system's safety function was not lost.
Inspection Report# : 2006003*(pdf)*

Barrier Integrity

Significance: G Jun 30, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Comply with 10 CFR 50 Appendix B, Criterion XVI for Recurring Fuel Assembly Cladding Failure
A self-revealed NCV of Criterion XVI was identified when damage to a fuel pin was found. The finding of very low safety significance (Green) occurred because the licensee failed to assure adequate corrective actions were implemented to prevent recurrence of fuel cladding damage to a fuel assembly. This finding represented an NCV of 10 CFR 50, Appendix B, Criterion XVI, in that the appropriate actions were not in place for a significant condition adverse to quality. The licensee entered the item into the corrective action program. Immediate corrective action included changing the core design and replacing susceptible fuel rods with stainless steel pins.

The inspectors determined that the finding is more than minor since the finding impacted the Barrier Integrity cornerstone objective of fuel clad integrity. Specifically, the clad on one fuel element had fretted away exposing the fuel plenum and plenum spring. The finding is of very low safety significance because only the fuel barrier was affected and plant TSs were not exceeded for fission product activity in the coolant.
Inspection Report# : 2006004*(pdf)*

Significance: G Dec 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Declare VHX-4 Cooler Inoperable with a Through-wall Piping Leak
The inspectors identified a finding of very low significance (Green) when the licensee failed to declare the containment air cooler, VHX-4, SW piping inoperable and take action in accordance with licensee procedures and technical specifications when a through-wall (pressure boundary) leak existed. This finding represented a non-cited violation of Technical Specifications 5.4, "Procedures," in that procedures were not properly implemented which would have resulted in declaration of inoperability of component. Corrective actions included conducting repairs to stop the leak. The licensee entered the item in the Corrective Action Program. The deficiency was also an issue in the cross-cutting area of human

performance in that personnel did not properly follow the procedure for determining operability.

The inspectors determined that the issue was more than minor because the finding impacted the barrier integrity cornerstone attribute for containment barrier performance. The deficiency affected the barrier integrity objective of providing reasonable assurance that physical design barriers for the containment protect the public from radionuclide releases in that part of the boundary to a closed system for a containment penetration was breached. The finding was of very low safety significance since the breach in the containment boundary was small and would have very little impact on offsite dose evaluations.
Inspection Report# : 2005012*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Apr 19, 2006
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Faliure To Develop an Adequate Procedure For Cask And Liner Reuse
A self-revealing finding of very low safety significance and an associated Non-Cited Violation of Technical Specification 5.4 “Procedures,” were identified. On April 19, 2006, while lowering a shielded cask and its liner into the reactor cavity in preparation for placing additional incore (irradiated) instruments into the liner, the liner failed to displace air and adequately flood-up with water. As a result, the liner, which housed highly radioactive irradiated incore detectors, floated up to the pool surface where it remained for about 12 seconds before sinking back down into the pool. The incident created transient elevated radiation levels on the refueling deck of the containment building resulting in radiological exposure to the workers in the area. The primary cause of this finding was an inadequate procedure for the work activity and the procedure change review process that failed to identify deficiencies with the procedure and with its development. The procedure allowed a carbon steel liner to be used on multiple occasions in a boric acid environment without properly accounting for its design, its material composition, and the manufacturer’s intended use. Licensee corrective actions included a procedure revision to preclude the repeated use of carbon steel liners in harsh environments, and an action to evaluate the current procedure change review processes.

The finding was more than minor because it was associated with the program and process attribute of the Occupational Radiation Safety Cornerstone, and adversely affected the Cornerstone objective of ensuring adequate protection of worker health and safety from exposure to radiation. The finding was of very low safety significance because it did not involve significant radiation exposure or a substantial potential for an overexposure, nor was the licensee’s ability to assess worker dose associated with the event compromised. The issue was a Non-Cited Violation of Technical Specification 5.4 which required, in part, that procedures appropriate to the circumstances be developed.
Inspection Report# : 2006008*(pdf)*

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : December 21, 2006