Kewaunee
3Q/2003 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2003
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failure to Ensure Plant Conditions Appropriate for Tagout Results in Loss of Reactor Coolant System Inventory.
A self-revealed, non-cited violation of 10 CFR 50, Appendix B, Criterion V, was identified for the licensee's failure to properly sequence a tagout in accordance with the licensee's tagout procedure. This resulted in an approximate 100-gallon loss of inventory from the reactor coolant system. A contributing cause of this finding was related to the cross-cutting area of Human Performance.

This finding is greater than minor because it affected the Initiating Events 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 finding is of very low risk significance because none of the checklist attributes of Inspection Manual Chapter 0609, "Shutdown Operations Significance Determination Process," Appendix G, were affected.
Inspection Report# : 2003004*(pdf)*

Significance: G Jun 30, 2003
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failure to Provide Appropriate Instructions in Refueling Procedure Results in Reactor Vessel Level Indication Perturbation
A self-revealed, non-cited violation of 10 CFR 50, Appendix B, Criterion V, was identified for the licensee's failure to ensure that the procedure governing refueling operations and reactor head disassembly had appropriate instructions or cautions to ensure that the reactor head vent remained vented to containment atmosphere. This resulted in the reactor head vent not being vented and affecting the operation of the refueling cavity water level instrument which operators were using to control reactor vessel water level.

This finding is greater than minor because it is a configuration control issue which affected the Initiating Events 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 finding is of very low risk significance because none of the checklist attributes of Inspection Manual Chapter 0609, "Shutdown Operations Significance Determination Process," Appendix G, were affected.
Inspection Report# : 2003004*(pdf)*

Significance: G Dec 19, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Adequate Separation of Safety-Related Circuits

A finding of very low safety significance associated with a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III Design Control was identified that pertained to improper application and use of a common balance-of-plant power supply to feed two redundant safety related circuits, which was not in accordance with the plant engineering specification procedure, the Updated Safety Analysis Report and the applicable Electrical and Electronics Engineers Standards.

This finding was more than minor because the lack of an adequate design for redundant safety related circuits could result in degradation of the component cooling water electrical system and if left uncorrected, could have the potential to upset plant stability, challenge critical safety functions during shutdown as well as power operations, and could potentially affect the reliability and capability of the component cooling water system to respond to initiating events. This finding was of very low safety significance because it does not represent an actual loss of the component cooling water system's safety function.
Inspection Report# : 2002007*(pdf)*

Mitigating Systems

Significance: G Sep 30, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Prescribe Instructions or Procedures Appropriate to the Circumstances for the Seismic Storage of Equipment Near the 'A' Auxiliary Feedwater Piping
The inspectors identified a Green finding associated with a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," for the failure to prescribe instructions or procedures appropriate to the circumstances for the seismic control of equipment stored near the vicinity of the ‘A' Auxiliary Feedwater (AFW) piping to the ‘A' Steam Generator, an activity affecting quality. The inspectors identified during plant walkdowns that following the 2003 Refueling Outage, portable plant equipment, including two portable 2.5-ton cranes, were stored in close proximity to the AFW piping, without the use of seismic restraints.

Inspection Report# : 2003006*(pdf)*

Significance: G Sep 30, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Prescribe Instructions or Procedures Appropriate to the Circumstances for the Installation of the Refueling Cavity Drain Standpipe Following Refueling Activities
A Green finding associated with a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures and Drawings," was self-revealed when the licensee, in preparing and verifying the response to NRC Bulletin 2003-01, "Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized Water Reactors," dated June 9, 2003, determined that the containment refueling cavity standpipe had not been installed after the Spring 2003 Refueling Outage. A procedure revision, issued prior to the 2003 Outage, had removed prescribed instructions to install the refueling cavity drain standpipe following reactor vessel refueling activities. The inspectors also concluded that this finding had, as a primary cause, a human performance deficiency.
Inspection Report# : 2003006*(pdf)*

Significance: G Jun 30, 2003
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failure to Ensure Material of Installed Pipe Plug in RHR System is in Accordance with Design Requirements
A self-revealed non-cited violation 10 CFR 50, Appendix B, Criterion V, was identified for the licensee's failure to ensure that the residual heat removal pump recirculation piping material was in accordance with a facility drawing and engineering specifications. This resulted in the corrosion of three pipe plugs, one of which was corroded to the point of leaking. The pipe plugs were installed on each residual heat removal's recirculation pipe pressure breakdown orifice. The three pipe plugs were made of carbon steel while the residual heat removal system piping, which contained borated water, was required to be made of stainless steel.

This finding was greater than minor because it affected the Mitigating System Cornerstone objective of equipment reliability and availability, in that the failure to ensure that the residual heat removal piping materials are in accordance with plant engineering specifications and drawings could result in system leakage significant enough to require taking the system out-of-service. The finding is of very low risk significance because this finding was not a design or qualification deficiency which resulted in a loss of function per Generic Letter 91-18.
Inspection Report# : 2003004*(pdf)*

Significance: G Dec 19, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Design Basis Calculations Contained Errors or Did Not Exist
A finding of very low safety significance associated with a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III Design Control was identified that related to the control and quality of design basis engineering calculations. Specifically, a number of concerns were identified related to the indexing and control of existing calculations, the lack of available calculations to support some aspects of the current design basis, and errors in existing calculations. As a result of these issues, the current design basis calculations, as well as the existing calculation control processes, may not be adequate to ensure that the design basis will continue to be maintained. Although none of the specific deficiencies identified during the inspection resulted in immediate operability concerns, it was concluded that the component cooling water system design basis was not being adequately controlled by the existing calculations.

This finding was more than minor based on the potential that the lack of adequate control and quality of design basis calculations could result in the ability of the component cooling water system to perform its safety functions to be degraded. Design basis calculations were routinely used in support of design changes, operating procedures, test acceptance criteria, and operability determinations. This finding was of very low safety significance because it did not represent an actual loss of the component cooling water system's safety function.
Inspection Report# : 2002007*(pdf)*

Significance: G Oct 01, 2002
Identified By: NRC
Item Type: NCV NonCited Violation
Inappropriate Placement of Diesel Generator Room Heat Detectors
During performance of a triennial fire protection inspection, USNRC Region III staff identified that heat detectors used for activation of a diesel generator room carbon dioxide (CO2) system were not located and installed in accordance with the applicable National Fire Protection Association (NFPA) code. Specifically, no heat detectors were located at the ceiling level. The failure to appropriately locate and install heat detectors for actuation of the CO2 system is a violation of the Kewaunee Nuclear Power Plant operating license.

The finding was greater than minor because it affected the protection against external factors (i.e., fire) attribute for mitigating systems. As a result of the inadequate heat detector placement, actuation of the carbon dioxide system in the diesel generator room could be delayed. The finding was of very low safety significance because the inspector was not able to identify a fire scenario in which safety significant cables would be damaged prior to actuation of the carbon dioxide system.
Inspection Report# : 2002006*(pdf)*

Significance: W Apr 04, 2002
Identified By: NRC
Item Type: VIO Violation
Failure to Provide Fixed Suppression System in Fire Area TU-95B
During performance of follow-up activities in response to a USNRC inspection, the licensee identified that fire area TU-95B had been misclassified in that it should have been classified as required to meet the requirements of Section III.G.3 of 10 CFR Part 50, Appendix R. An apparent violation of 10 CFR Part 50, Appendix R, Section III.G.3 was identified for the failure to provide fire area TU-95B with a fixed fire suppression system.

This issue has been preliminarily determined to have low to moderate safety significance (White). As a result of failing to have a fixed fire suppression system, there was a greater likelihood that a fire in fire area TU-95B would not be suppressed and redundant trains of cables and equipment required for safe shutdown could be damaged. The corresponding damage could require a shutdown of the plant from outside the control room, significantly increasing the complexity of manual actions required to achieve safe shutdown.

Due to the licensee failing to conduct a timely root cause evaluation a develop adequate corrective actions, this finding is being held open greater than four quarters until the licensee's root cause evaluation is complete and a supplemental inspection is conducted.
Inspection Report# : 2002006*(pdf)*

Barrier Integrity

Significance: G Mar 31, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Log Axial Flux Difference in Accordance with Technical Specifications
The inspectors identified a finding of very low risk significance for the licensee's failure to monitor and log axial flux difference after disabling the power range axial flux monitor and computer alarm.

The finding was of greater than minor risk significance because the operators failure to log and assess axial flux difference with the alarm disabled as required by Technical Specifications inhibited the operators' ability to trend changing core flux conditions. This failure to log and assess axial flux difference could affect fuel cladding performance which is an attribute of the Barrier Integrity Cornerstone. The finding was of very low risk significance because although the finding impacted the Barrier Integrity Cornerstone, it affected the fuel barrier and not the reactor coolant system barrier and no actual abnormal axial flux difference existed during the time that the axial flux monitor alarm was disabled. The finding also affected the cross-cutting area of Human Performance because during the course of establishing a fixed signal in the Process Computer, operators were conducting activities beyond the bounds of approved procedural guidance. This finding was determined to be a Non-Cited Violation of Technical Specification

3.10.b.13.
Inspection Report# : 2003002*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Significance: G Jun 30, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Report a Significant Fitness-for-Duty Event in a Timely Manner.
A finding of very low safety significance was identified by the inspectors for a violation of 10 CFR Part 26 Fitness-for-Duty (FFD) reporting requirements. The licensee failed to notify the NRC Operation Center within 24 hours of discovery of an illegal drug found within the licensee's protected area. The licensee failed to report the event because they did not realize this type of event was required to be reported.

The finding was determined to be of very low significance because it was a vulnerability in the licensee's Safeguards plan, was not a malevolent act, and similar findings had not occurred in the last four calendar quarters. The finding was determined to be more than minor because illegal drugs located within a licensee's protected area are required to be reported to the NRC in accordance with 10 CFR 26.73(a) requirements.
Inspection Report# : 2003004*(pdf)*

Miscellaneous

Last modified : December 01, 2003