D.C. Cook 1
2Q/2004 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Jun 30, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Acceptance Criteria for Heat Exchanger Tube Blockage
A finding of very low safety significance and an associated Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XI, "Test Control," was identified for the failure to include adequate acceptance limits in the procedure for inspecting and cleaning the component cooling water system heat exchangers. This finding was more than minor because, if left uncorrected, the issue could become a more significant safety concern. Specifically, the testing acceptance limit deficiencies could have designated a component cooling water heat exchanger as acceptable, when the heat exchanger heat removal capability had actually degraded below its design requirements. The issue was of very low safety significance since the licensee had recently cleaned all four component cooling water system heat exchangers and operability limits were not challenged.

Corrective actions to address this issue included revising testing acceptance limits to adequately define what constituted a blocked heat exchanger tube.
Inspection Report# : 2004006*(pdf)*

Significance: G Dec 27, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Implement Requirements of the Unit 1 Lower Containment and Emergency Core Cooling System Recirculation Sumps Surveillance Test Procedure
The inspectors identified a Non-Cited Violation of Technical Specification 6.8.1.a associated with the licensee's failure to adequately implement the requirements of 12-MHP-4030-031-001, "Inspection of Lower Containment and Recirculation Sumps." Specifically, the licensee failed to adequately perform the following: (1) check the lower containment sump screen wire mesh for rips, tears, openings, or gaps that were large enough to allow particulate larger than 1/4 inch to pass through or around screens; (2) perform a visual examination of residual heat removal pump suction piping from the recirculation sump to the suction valve discs for debris greater than 1/4 inch in diameter; (3) check recirculation sump level instrumentation well lateral support bracket mounting nuts for evidence of abnormal deterioration; and (4) accurately identify and record the degradation of galvanized coatings on carbon steel fasteners for the recirculation sump level instrumentation well lateral support brackets. The licensee subsequently corrected these conditions prior to Unit 1 entering Mode 4.

The inspectors determined that a failure to correct these surveillance test procedure implementation inadequacies could become a more significant safety concern if left uncorrected and was therefore more than a minor concern. Specifically, the failure to adequately perform surveillance testing could result in the failure to identify degraded or inoperable safety-related equipment. The inspectors concluded that this finding was a licensee performance deficiency of very low safety significance because the recirculation sump was not required to be capable of performing a safety-related function immediately following the inadequate surveillance testing and the conditions were corrected prior to Unit 1 entering Mode 4.
Inspection Report# : 2003012*(pdf)*

Significance: G Sep 30, 2003
Identified By: Self Disclosing
Item Type: FIN Finding
Inappropriate Procedure for Testing Switchyard Breaker
A finding of very low safety significance was self-revealed when licensee personnel failed to accomplish testing of 345 kilovolt switchyard breaker "L" with an adequate procedure which resulted in the loss of the Class 1E reserve feed supply to Train "B" safety-related equipment for Unit 1 and Unit 2. The primary cause of this finding was related to the cross-cutting area of Human Performance. The licensee subsequently restored the switchyard Class 1E reserve feed supply and issued a standing order to control maintenance and testing in the switchyard.

The finding was more than minor because this finding was associated with the Procedure Quality 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 since the reliability of the offsite Class 1E reserve feed supply to safety-related equipment for both units was affected. This finding was of very low safety significance since it did not result in the actual loss of the safety function of any safety-related equipment. No violation of regulatory requirements occurred.
Inspection Report# : 2003010*(pdf)*

Significance: G Sep 30, 2003
Identified By: Self Disclosing
Item Type: FIN Finding
Incorrect Sensing Line Configurations on Control Room Air Conditioning Units
A finding of very low safety significance was self-revealed when licensee personnel failed to control the sensing line configuration on the Control Room Air Conditioning (CRAC) chiller units in accordance with design documentation which resulted in spurious tripping of an idle CRAC chiller unit upon initial start following an extended shutdown period. The primary cause of this finding was related to the cross-cutting area of Human Performance. The licensee subsequently corrected the sensing line configuration and successfully tested the operation of all four chiller units.

The finding was more than minor because this finding was associated with the Design Control and Equipment Performance attributes 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 because the reliability of the CRAC chiller units was impacted. This finding was of very low safety significance because the design deficiency did not result in a loss of function of the CRAC chiller units per Generic Letter 91-18. No violation of regulatory requirements occurred.
Inspection Report# : 2003010*(pdf)*

Significance: G Jul 11, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Untimely Corrective Action For Diesel Fuel Oil Day Tank Level Issue
A finding of very low safety significance was identified involving a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI, Corrective Actions, for the failure to timely resolve Technical Specification interpretation inconsistencies associated with the total required volume in the emergency diesel generator fuel oil day tanks. These inconsistencies were identified by the licensee in August 2000, however, as of July 11, 2003, this issue remains unresolved.

This finding is greater than minor because the licensee corrective actions have not been timely in resolving this issue. This issue affected the mitigating systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This finding is of very low safety significance because there was not a loss of function as each fuel oil system contains redundant, safety-related fuel oil transfer pumps that would start prior to reaching the unusable volume in the day tank; and that these pumps have shown good reliability.
Inspection Report# : 2003007*(pdf)*

Barrier Integrity

Significance: G Dec 27, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Non-Code Calibration Block Used For Examination of Vessel-to-Flange Welds
The inspector identified a Non-Cited Violation of 10 CFR 50.55a(g)(4) associated with use of a non-Code calibration block for calibration of equipment used in ultrasonic examinations of the reactor vessel-to-flange welds for Unit 1 and Unit 2. Specifically, the calibration block exceeded the American Society of Mechanical Engineers Code specified thickness, did not have reflectors (side drilled holes) located at the required locations and did not contain square notch type reflectors.

This finding was more than minor because it could have become a more significant safety concern if not corrected. Specifically, the licensee had scheduled an ultrasonic examination of the vessel-to-flange weld during the current outage and intended to use the non-Code calibration block. Had this issue not been identified, it would have resulted in a non-Code examination, which could have resulted in undetected weld flaws remaining in-service (e.g., a degraded reactor coolant system boundary). The finding was of very low safety significance because other examinations of the reactor vessel-to-flange welds had been conducted in accordance with the Code. To address this issue, the licensee planned to generate procedures to better control the process for these types of inspections.
Inspection Report# : 2003012*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Jan 08, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Failure to Follow the Radiation Work Permit and the Procedure Governing Radiation Worker Practices During Reactor Coolant Filter Change-Out Work
A self-revealed finding of very low safety significance and an associated Non-Cited Violation were identified when an individual continued to work through both accumulated dose and dose rate electronic dosimetry (ED) alarms, and failed to fully utilize intended radiation shielding while changing-out the Unit 2 reactor coolant filter. As a result, the worker received unintended dose for the work activity.

The finding was more than minor because the failure to stop work upon receiving ED dose and dose rate alarms, the failure to adequately use time, distance and shielding fundamentals in the execution of the filter change-out work coupled with inadequate radiation protection technician job coverage were associated with the "Human Performance" attribute of the Occupational Radiation Safety Cornerstone. The finding 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 the worker's radiation exposure was low relative to regulatory limits, and because there was not a substantial potential for a worker overexposure; nor was the licensee's ability to assess worker dose compromised. To address this issue, the licensee implemented several corrective actions to ensure improved in-field oversight of work in high radiological risk areas, and to ensure workers better understand their responsibilities as radiation workers.
Inspection Report# : 2003016*(pdf)*

Public Radiation Safety

Significance: W Jan 08, 2004
Identified By: NRC
Item Type: VIO Violation
Failure to Prepare a Shipment of Radioactive Waste to Satisfy Department of Transportation External Package Radiation Level Limits
A self-revealed finding preliminarily assessed to be greater than Green and an associated apparent violation were identified for the failure to prepare a package of radioactive material for shipment, so that under conditions normally incident to transportation, the radiation level does not exceed 200 millirem/hour at any point on the external surface of the package. Package surface radiation levels in excess of 200 millirem/hour were identified by a waste processing contractor upon receipt of the shipment from the licensee.
The finding was more than minor because it was associated with the "Program and Process" attribute of the Public Radiation Safety Cornerstone, and affected the cornerstone objective of ensuring adequate protection of public health and safety from exposure to radioactive materials released into the public domain. Also, the issue involved an occurrence in the licensee's radioactive material transportation program that was contrary to NRC and Department of Transportation regulations. The finding was determined preliminarily to be of low to moderate safety significance because the transportation problem involved an external package radiation level that exceeded limits by 25 percent and because the area of elevated radiation on the package was determined to be accessible to a member of the public during conditions normally incident to transportation. To address this issue, the licensee planned to revise procedures to require load plans and to specify which survey instrumentation is to be used for package surveys, and to provide training to its staff involved in radioactive material shipments.

Final Significance Determination for a White Finding and Notice of Violation Letter Issued on March 12, 2004, EA-04-006.

The NRC performed this supplemental inspection to assess the licensee's evaluation of a White performance issue in the Public Radiation Safety Cornerstone. Specifically, the supplemental inspection assessed the adequacy of the licensee's evaluation, extent of condition/cause review and corrective actions associated with one White input in the public radiation safety cornerstone which resulted from a radioactive waste shipment problem in October 2003. Radiation Protection Inspection Report No. 05000315/2003016(DRS); 05000316/2003016(DRS) provided the details of the shipment problem. This problem was characterized as a White finding and was determined to involve a violation of Department of Transportation regulations, as documented in the NRC's final significance determination report (Inspection Report No. 05000315/2004005(DRS); 05000316/2004005(DRS)) dated March 12, 2004.

During this "Inspection for One or Two White Inputs in a Strategic Performance Area," performed in accordance with Inspection Procedure 95001, the inspector determined that the licensee performed an adequate evaluation of the specific performance issue and that comprehensive corrective actions were completed to address each of the specific causes. The licensee identified the specific causes as inadequate loading of the package and inadequate radiation surveys, precipitated by organizational/programmatic failures and deficiencies with worker skills/knowledge. Corrective actions included procurement of additional instrumentation, procedural changes, the development of a new procedure, expanded supervisory involvement/oversight in shipment activities and training for staff involved in shipments.

The inspector did not identify any findings or significant concerns associated with the licensee's evaluation of the specific performance issue; however, deficiencies with the scope of the licensee's overall evaluation and the depth of its extent of cause review were disclosed. In particular, the licensee's evaluation failed to explore the potential for programmatic causes or look for indications of higher level problems with those processes or systems intended to identify issues at an early stage such as the corrective action and oversight programs.

Given the licensee's progress in evaluating and correcting the problems with the radioactive material transportation program that resulted in the White finding, this public radiation safety cornerstone performance issue will not be held open beyond the normal four quarters provided in NRC Manual Chapter 0305, "Operating Reactor Assessment Program."

Inspection Report# : 2003016*(pdf)*
Inspection Report# : 2004005*(pdf)*
Inspection Report# : 2004008*(pdf)*

Significance: G Oct 28, 2003
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Conduct an Adequate Radiological Survey
A finding of very low safety significance was self-revealed when a second survey of a valve that was previously surveyed and unconditionally released from the radiologically controlled area identified that the valve was contaminated. The primary cause of this finding was related to the cross-cutting area of Human Performance.

The finding was more than minor because this finding was associated with the Human Performance and Program and Process attributes of the Public Radiation Safety cornerstone and adversely impacted the cornerstone objective of ensuring adequate protection of the public health and safety from exposure to radioactive materials released or potentially released into the public domain. The finding was of very low safety significance because the public radiation exposure resulting from the problem was low and the finding was not repetitive. To address this issue, the licensee performed a thorough extent of condition evaluation to ensure that contaminated residue was identified which included radiation surveys in offsite areas and of personal items located outside the radiologically controlled area. One Non-Cited Violation of Technical Specification 6.8.1 regarding licensee procedures that govern the unconditional release of radioactive material was identified.
Inspection Report# : 2003010*(pdf)*

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Significance: TBD Jun 04, 2004
Identified By: NRC
Item Type: AV Apparent Violation
Failure to Provide Complete and Accurate Information to the NRC Which Impacted A Licensing Decision.
D. C. Cook management personnel informed NRC Region III by letter dated March 24, 2004, that one senior reactor operator had a pre-existing medical condition (since 1996) that required the presence of another qualified individual (i.e., "no solo") when performing licensed duties and requested a "no solo" license restriction for the individual. The letter from the company physician also described a medication the individual was taking for the medical condition. The medical condition described by the physician was considered a disqualifying condition in accordance with American National Standards Institute/American Nuclear Society (ANSI/ANS)-3.4 - 1983, "American National Standard Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants." On December 28, 1999, the licensee provided information to the NRC regarding the medical status of the same individual applying for a renewal of the individual's senior reactor operator license with no recommendation for a "no solo" license. The individual's license was renewed by the NRC on February 1, 2000, based on the information provided by the licensee on December 28, 1999. Again, the medical condition was considered a disqualifying condition in accordance with ANSI/ANS-3.4 - 1983, and should have been reported to the NRC on NRC Form 396 for the renewal of the applicant's license requesting a "no solo" restriction on the individual's license. Therefore, the information provided to the NRC on December 28, 1999, was material to the NRC licensing action. [Note: The information concerning the individual's specific medical condition is considered medical privacy information under 10 CFR 2.390(2)(6) and is not specifically discussed here.]

As noted above, Region III received a letter from the D. C. Cook Nuclear Power Plant dated March 24, 2004, requesting a "no solo" license restriction for the individual. Region III received another letter from the D. C. Cook Nuclear Power Plant dated May 20, 2004, notifying the NRC that the recommendation of the "no solo" license condition for the individual not be implemented. The letter stated that upon further review of the individual's medical records, the company physician determined that the individual met ANSI/ANS-3.4 - 1983 to work as an operator in a multi-person facility; therefore, no license condition for solo operation was required. The NRC's medical officer again determined on May 26, 2004, that the operator required a "no solo" restriction to the operator's license. Since NRC intervention was required to identify the requirement for the operator to have a "no solo" restriction, this apparent violation was considered NRC identified.

Because the issue affected the NRC's ability to perform its regulatory function, it was evaluated with the traditional enforcement process. The finding was determined to be of low safety significance because the operator had not acted in a solo capacity prior to the license being amended. However, the regulatory significance was important because the incorrect information was provided under a signed statement to the NRC and impacted a licensing decision for the individual. The issue was preliminarily determined to be an apparent violation of 10 CFR 50.9.
Inspection Report# : 2004007*(pdf)*

Significance: N/A Dec 19, 2003
Identified By: NRC

Item Type: FIN Finding

Summary Conclusion PI&R Inspection

The inspectors concluded that the licensee's corrective action program attributes enabled timely problem identification commensurate with the significance level and that the threshold for problem identification was low. Performance Assurance and self assessment reports identified issues for the plant to resolve, including issues with corrective action implementation. The significance level of identified problems was appropriately characterized in most cases.

Root cause evaluations were thorough and appropriate corrective actions for significant conditions adverse to quality were identified. However, several examples were identified by the licensee where corrective actions to prevent recurrence of significant conditions adverse to quality were not effective. An adverse performance trend in the areas of root cause identification and corrective action implementation was identified during the previous Problem Identification and Resolution inspection. The inspectors determined that corrective action program performance issues continued to occur in the areas.
Inspection Report# : 2003015*(pdf)*

Last modified : September 08, 2004