Cooper
3Q/2010 Plant Inspection Findings

Initiating Events

Significance: G Jun 23, 2010
Identified By: Self-Revealing
Item Type: FIN Finding
Failure to Perform Required Maintenance Causes Unplanned Down Power
A self-revealing finding was identified for the licensee's failure to implement the preventive maintenance requirements of the vendor manual for the plant traveling water screens. Specifically, Vendor Manual 140, "Traveling Water Screen," Revision 35, contained daily and weekly routine maintenance requirements to open the channel-flushing valve to clear any accumulated debris from the screens. Despite the fact that the licensee incorporated this vendor manual into their preventive maintenance system, this maintenance requirement was overlooked. The failure to perform this maintenance task led to the trip of the A1 and A2 traveling water screens on May 1, 2010 and required an emergent power reduction. The licensee entered this issue in their corrective action program as Condition Report CR-CNS-2010-03195, and implemented daily checks of the traveling water screens and daily flushing of the screen debris troughs.

The finding was more than minor because it affected the equipment performance attribute of the initiating events cornerstone, and adversely 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. This finding was characterized under the significance determination process as having very low safety significance because it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation functions would be unavailable. The inspectors determined that no crosscutting aspect was applicable to this finding because the performance deficiency was not reflective of current performance (Section 4OA5).

Inspection Report# : 2010003 *(pdf)*

Significance: G Apr 28, 2010
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Work Preparation Activities Cause Unplanned Increase in Reactor Power
A self revealing noncited violation of 10 CFR 50.54.j was identified when the licensee failed to ensure that mechanisms which may affect reactivity are manipulated only with the knowledge and consent of a licensed operator at the controls. Specifically, a work planner caused a feedwater heater trip by touching a pressure regulating valve without the knowledge of the control room. The reactivity increase due to the change in feedwater temperature caused the reactor to exceed the licensed thermal power limit of 2419 MWt until reactor operators reduced power. The licensee entered this issue in their corrective action program as CR-CNS-2010-03091.

The finding was more than minor because the performance deficiency could be reasonably viewed as a precursor to a significant event in that a reactor power transient was initiated without the knowledge of the control room. This finding was characterized under the significance determination process as having very low safety significance because while the finding degraded the transient initiator contributor function of the initiating events cornerstone, it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions will not be available. The inspectors determined that this finding has a crosscutting aspect in the area of human performance associated with the work practices component because the work planner proceeded in the face of unexpected circumstances by exceeding the scope of the job when he found the leak was greater than expected (Section 4OA3).

Inspection Report# : 2010003 *(pdf)*

Significance: G Dec 31, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Follow Surveillance Procedure Causes Near Toxic Gas Release
A self-revealing noncited violation of Technical Specification 5.4.1.d, “Fire Protection Program Implementation” was identified for the licensee’s failure to follow the requirements of Surveillance Procedure 6.FP.306, “Fire Detection Systems Semi-Annual Examination.” Specifically, licensee technicians actuated the wrong thermal detector during surveillance testing, causing the CO2 fixed flooding system timer to actuate. Technicians recognized the error when the local and remote alarms actuated, and removed the heat source from the detector prior to release of the CO2 gas. The licensee entered this issue in their corrective action program as CR-CNS-2009-07008.

The performance deficiency associated with this finding involved the licensee’s failure to follow the requirements of Surveillance Procedure 6.FP.306, “Fire Detection Systems Semi-Annual Examination.” Specifically, licensee technicians actuated the wrong thermal detector during surveillance testing, causing the CO2 fixed flooding system timer to actuate. The finding affects the initiating events cornerstone and is more than minor because it could be reasonably viewed as a precursor to a significant event, namely a toxic CO2 release in the Diesel Generator 1 room. Using the Manual Chapter 0609, Appendix F, Phase 1 screening worksheet, the inspectors determined that the finding has very low safety significance because it was associated with a low degradation rating. The finding has a crosscutting aspect in the area of human performance associated with work practices because maintenance technicians failed to use appropriate self or peer checking techniques, and proceeded in the face of uncertainty when unlabeled components were encountered [H.4(a)].

Inspection Report# : 2009005 *(pdf)*

Significance: G Dec 31, 2009
Identified By: NRC
Item Type: FIN Finding
Multiple Examples of a Failure to Follow Procedure For Extension Cord Configuration Control
The inspectors identified multiple examples of a finding for the licensee’s failure to initiate condition reports as required by Administrative Procedure 0.36.7, “Electrical Cord Control/GFCI Program,” to resolve extension cords which had been in place longer than 90 days. Had the condition reports been initiated, design engineering would have evaluated whether permanent power receptacles were needed to power plant equipment, such as security cameras. The licensee entered this issue in their corrective action program as CR-CNS-2009-08610.

The performance deficiency associated with this finding was the licensee’s failure to initiate condition reports for multiple examples of extension cords being used as a substitute for permanent wiring for greater than 90 days. The finding is more than minor because, if left uncorrected, the performance deficiency had the potential to lead to a more significant safety concern, such as electrical shock, equipment damage or fire. Because the plant was shutdown at the time this performance deficiency occurred, the inspectors used Manual Chapter 0609, Appendix G, ”Shutdown Operations Significance Determination Process.” Using Checklist 7 in Attachment 1, “Shutdown Operations Significance Determination Process Phase 1 Operational Checklists For Both PWRs and BWRs”, the inspectors determined that the finding had very low safety significance because every item on the checklist was met. The finding has a crosscutting aspect in the area of human performance associated with resources because the licensee’s procedure for control of extension cords does not require tracking of extension cord use to ensure that condition reports are initiated for cords in use greater than 90 days [H.2(c)].

Inspection Report# : 2009005 *(pdf)*

Significance: G Dec 31, 2009
Identified By: NRC
Item Type: FIN Finding
Maintenance Error Results in Recirculation Pump Trip
The inspectors identified a finding for the licensee’s failure to follow the requirements of Administrative Procedure 0.40, “Work Control Program,” Revision 68. Specifically, a maintenance technician violated the procedure by

attempting corrective maintenance on the Reactor Recirculation Motor Generator A lubricating oil system without notifying the control room, resulting in a trip of the motor generator and the supported reactor recirculating pump. The licensee entered this issue in their corrective action program as CR-CNS-2009-09023.

The performance deficiency associated with this finding was the licensee's failure to follow the requirements of Administrative Procedure 0.40, "Work Control Program," on October 29, 2009. The finding is more than minor because it adversely affected the configuration control attribute of the initiating events cornerstone, and adversely affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. Because the plant was shutdown at the time this performance deficiency occurred, the inspectors used Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process." Using Checklist 7 in Attachment 1, "Shutdown Operations Significance Determination Process Phase 1 Operational Checklists For Both PWRs and BWRs", the inspectors determined that the finding had very low safety significance because every item on the checklist was met. The finding has a crosscutting aspect in the area of human performance associated with work practices because the licensee's maintenance technician did not use the procedurally-required Stop-Think-Act-Review step (error prevention tool) which would have required him to ensure that all energy had been removed from the recirculation motor generator oil system prior to performing maintenance on the system [H.4(a)].

Inspection Report# : 2009005 *(pdf)*

Significance: G Dec 31, 2009
Identified By: Self-Revealing
Item Type: FIN Finding
Failure to Follow Procedure For Control of Material
A self-revealing finding was identified for the licensee's failure to follow Administrative Procedure 0.47, "Control of In-Process Material," Specifically, a maintenance technician violated the procedure by obtaining a spare o-ring from an uncontrolled toolbox and that o-ring was then installed in the Main Turbine Control Valve 3 hydraulic fitting. The o-ring was the wrong size and caused a hydraulic leak that required taking the turbine off line and shutting down the reactor from 70 percent power. The licensee entered this issue in their corrective action program as CR-CNS-2009-09606.

The finding is more than minor because it adversely affected the configuration control attribute of the initiating events cornerstone, and adversely 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, in that this finding resulted in a condition that prompted a plant shutdown from 70 percent power. In accordance with Manual Chapter 0609, Attachment 4, the inspectors used the Phase 1 "Initial Screening and Characterization" worksheet to determine that the finding has very low safety significance because it did not result in the loss of any system safety function. The cause of this finding is related to human performance cross cutting component of work practices because the involved maintenance personnel proceeded in the face of uncertainty when obtaining replacement o-rings [H.4(a)].

Inspection Report# : 2009005 *(pdf)*

Significance: G Dec 31, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Procedure Noncompliance Causes Fire in Heater Bay
A self-revealing noncited violation of Technical Specification 5.4.1.d, "Fire Protection Program Implementation," was identified for the licensee's failure to follow Administrative Procedure 0.39, "Hot Work." Specifically, contractors under the licensee's control failed to consider weld pre-heating as an activity requiring hot work controls, and as such did not take the appropriate precautions for a pre-heating activity. As a result, a degraded pre-heating blanket failed in service, started a fire in the heater bay and resulted in declaration of a Notice of Unusual Event. The licensee entered this issue in their corrective action program as CR-CNS-2009-08061.

The performance deficiency associated with this finding involved the licensee's failure to follow the requirements of Administrative Procedure 0.39, "Hot Work." Specifically, contractors performing work in the turbine building heater

bay failed to consider weld pre-heating as an activity requiring hot work controls and did not take the appropriate precautions for the pre-heating activity. The finding is more than minor because it affected the external events aspect 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 inspectors determined that Manual Chapter 0609, Appendix F, “Fire Protection Significance Determination Process,” could not be applied to shutdown plant conditions. Because the plant was shutdown at the time this performance deficiency occurred, the inspectors used Manual Chapter 0609, Appendix G, “Shutdown Operations Significance Determination Process.” Using Checklist 7 in Attachment 1, “Shutdown Operations Significance Determination Process Phase 1 Operational Checklists For Both PWRs and BWRs”, the inspectors determined that the finding had very low safety significance because every item on the checklist was met. This finding has a crosscutting aspect in the area of human performance associated with work practices because the licensee personnel failed to maintain adequate supervisory control over contractors performing welding in the turbine building heater bay [H.4(c)].

Inspection Report# : 2009005 *(pdf)*

Mitigating Systems

Significance: G Jun 23, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Document Design of Service Water Discharge Piping in Plant Drawings
The inspectors identified a noncited violation of 10 CFR 50 App B Criterion III, “Design Control,” in which the licensee failed to maintain accurate design drawings of the service water system discharge piping. Specifically, Drawing BR 2120, “Yard Circ. & Service Water Piping Plan & Sections,” Revision 14 incorrectly identified the as-left configuration of the service water system discharge piping, and was used as a design input to numerous essential calculations. The licensee entered this issue in their corrective action program as Condition Report CR-CNS-2010-03689.

The finding was more than minor because it affected the design control attribute of the mitigating systems cornerstone, and adversely 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). This finding was characterized under the significance determination process as having very low safety significance because all of the screening questions in the Manual Chapter 0609, Attachment 4, “Initial Screening and Characterization of Findings” Phase 1 screening table were answered in the negative. The inspectors determined that no crosscutting aspect was applicable to this finding due to the age of the performance deficiency and the lack of recent identification opportunities (Section 1R04).

Inspection Report# : 2010003 *(pdf)*

Significance: G Jun 23, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Place the Essential 4160 Volt Alternating Current System Agastat Relays in (a)(1).
The inspectors identified a noncited violation of 10 CFR 50.65(a)(2), requirements for monitoring the effectiveness of maintenance at nuclear power plants, for failure to demonstrate that the performance of the essential 4160 volt alternating current power system was effectively controlled through appropriate preventive maintenance. As a result, the licensee did not establish goals or monitor the performance of the essential power system Agastat relays per 10 CFR 50.65 (a)(1) to ensure appropriate corrective actions were initiated when a revised evaluation of a Agastat time delay relay failure incorrectly changed the initial functional failure determination. Incorrectly changing this maintenance preventable functional failure resulted in the affected function, EE-PF03A, not reaching the licensee’s maintenance rule (a)(1) threshold. The licensee entered this issue in their corrective action program as Condition Report CR-CNS-2008-07910.

This finding is more than minor because it affected the reliability objective of the Equipment Performance attribute under the Mitigating Systems Cornerstone. The inspectors determined that this performance deficiency was an additional, but separate consequence of the degraded performance of the essential 4160 volt alternating current system Agastat relays. Following the guidance of Appendix B to MC0612 and Appendix D to IP 71111.12, the inspectors determined that this finding occurred as a consequence of actual problems with the Agastat relays, and that those actual problems were not attributable to this finding. This finding therefore cannot be processed through the significance determination process, and is considered to be green by definition. The finding has a crosscutting aspect in the area of human performance associated with decision making because the licensee did not use conservative assumptions in the functional failure evaluation of a Agastat relay failure (Section 1R12).

Inspection Report# : 2010003 *(pdf)*

Significance: G Mar 24, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Repeat Failure to Follow Procedure for Initiating Condition Reports
The inspectors identified a noncited violation of 10 CFR 50 Appendix B, Criterion V, “Instructions, Procedures and Drawings,” regarding the licensee’s failure to follow the requirements of Administrative Procedure 0.5, “Conduct of the Condition Reporting Process.” Specifically, plant engineers performing an extent of condition review for errors in the internal flooding analysis failed to initiate condition reports for additional degraded or nonconforming conditions as they were identified. The licensee entered this issue in their corrective action program as CR-CNS-2010-01596.

The inspectors determined that Manual Chapter 0612, Appendix E, “Examples of Minor Issues” provided no sufficiently similar examples, and that the finding is more than minor because it is associated with the design control attribute of the mitigating systems cornerstone, and adversely affected the cornerstone objective to ensure the availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. Using the Manual Chapter 0609, Attachment 4, “Phase 1 – Initial Screening and Characterization of Findings,” the inspectors determined that the finding has very low safety significance because all of the items in the Table 4a mitigating systems cornerstone checklist were answered in the negative. The finding has a crosscutting aspect in the area of problem identification and resolution because the licensee failed to take appropriate corrective actions to address previously identified examples of employees not initiating condition reports during extent of condition reviews [P.1(d)].
Inspection Report# : 2010002 *(pdf)*

Significance: G Mar 24, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Service Water Pump Room Loss of Heat Calculation
The inspectors identified a noncited violation of 10 CFR, Part 50, Appendix B, Criterion III, “Design Control,” for the licensee’s use of an incorrect post-accident service water flow rate in the design basis calculation of record. Calculation NEDC 91-232 determined the minimum service water pump room temperature following a loss of offsite power. The minimum service water flow during accident conditions is used to derive the heat input into the room by the service water pump motors. The calculation incorrectly assumed a value for the post-accident service water flow rate that was less conservative than the value defined in the updated final safety analysis report. In response to the inspectors’ concerns, the licensee initiated Condition Report CR-CNS-2009-10389 and revised the affected calculation.

The inspectors determined that this performance deficiency was sufficiently similar to the not-minor-if description of Example 3.a, 3.l, 3.j and 3.k of Manual Chapter 0612, Appendix E, “Examples of Minor Issues” due to the fact the effected calculation had to be re-performed to demonstrate the operability of the service water system. As such, the inspectors determined that the finding was more than minor because it was associated with the design control attribute of the mitigating systems cornerstone, and adversely affected the cornerstone objective to ensure the availability, reliability and capability of systems that respond to mitigating events to prevent undesirable consequences. The inspectors determined that this performance deficiency was dissimilar from any other examples in Manual Chapter 0612, Appendix E. Using the Manual Chapter 0609 Exhibit 1, "Initial Screening and Characterization of Findings,"

the issue screened as having very low safety significance because it was a design deficiency confirmed not to result in loss of operability in accordance with NRC Manual Chapter Part 9900, Technical Guidance, “Operability Determination Process for Operability and Functional Assessment.” The inspectors determined that no cross cutting aspect was applicable to this performance deficiency because the calculation error is not reflective of current performance.
Inspection Report# : 2010002 *(pdf)*

Significance: G Dec 31, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Set Goals and Monitoring for the Diesel Generator Lubricating Oil System
The inspectors identified a noncited violation of 10 CFR 50.65(a)(1) for the failure to monitor the performance of the diesel generator lubricating oil system against licensee-established goals in a manner sufficient to provide reasonable assurance that the diesel generator lubricating oil system was capable of fulfilling its intended safety functions. Specifically, a revision to the root cause investigation report for a diesel generator 2 lubricating oil pipe crack failure resulted in an undetected repeat maintenance preventable functional failure that required an automatic (a) (1) status of the associated maintenance rule function. Although the diesel generator system was already in (a) (1) status for other reasons, the appropriateness of the existing goals required evaluation under 10 CFR 50.65(a) (1). The licensee entered this issue in their corrective action program as Condition Report CR CNS 2009 06392 and determined it was appropriate to establish and monitor an additional goal for the emergency diesel generator lubricating oil system.

This finding is more than minor because it affected the reliability objective of the equipment performance attribute under the mitigating systems cornerstone. The inspectors determined that this performance deficiency was an additional, but separate consequence of the degraded performance of the diesel generators lubricating oil systems. Following the guidance of Appendix B to Manual Chapter 0612 and Appendix D to Inspection Procedure 71111.12, the inspectors determined that this finding occurred as a consequence of actual problems with the diesel generator lubricating oil system, and that those actual problems were not attributable to this finding. The inspectors used Manual Chapter 0609, Appendix M, “Significance Determination Process Using Qualitative Criteria,” to conclude that the finding was of very low safety significance. The finding has a crosscutting aspect in the area of human performance associated with resources because the licensee did not ensure that procedures were available and adequate to assure nuclear safety, in that the licensee did not ensure that Administrative Procedure 0.5.NAIT required reevaluation of maintenance rule failures following revisions of equipment cause analyses [H.2(c)].

Inspection Report# : 2009005 *(pdf)*

Significance: G Dec 31, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Implement a Prescribed Risk Mitigating Action
The inspectors identified a noncited violation of 10 CFR 50.65.a (4) for the licensee’s failure to manage the increase in risk that may result from proposed maintenance activities. Specifically, inspectors discovered that after the licensee had designated Core Spray Pump B as “protected” in accordance with Administrative Procedure 0-PROTECT-EQP, “Protected Equipment Program,” the licensee removed the protected core spray pump from service for a maintenance activity. The licensee entered this issue in their corrective action program as CR-CNS-2009-09243.

The performance deficiency associated with this finding involved the licensee’s failure implement prescribed risk mitigating actions. Specifically, inspectors discovered that a protected train core spray pump had been made unavailable for a maintenance activity. The finding is more than minor because the licensee failed to implement a prescribed significant compensatory measure. A senior reactor analyst assisted with the significance determination process. For this finding, the analyst used the guidance in NRC Inspection Manual Chapter 0609, Appendix G, “Shutdown Operations Significance Determination Process,” and Appendix K, “Maintenance Risk Assessment and Risk Management Significance Determination Process.” The analyst determined that the finding associated with an inoperable core spray pump, while that pump was specified as protected equipment, screened as having very low safety significance in both the Appendix K and Appendix G significance determination processes. This finding has a crosscutting aspect in the area of human performance associated work practices because operations personnel failed to

follow the procedural requirements of Administrative Procedure 0-PROTECT-EQP [H.4(b)].

Inspection Report# : 2009005 *(pdf)*

Significance: G Dec 31, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Correct Diesel Generator 2 Oil Leakage
A self-revealing noncited violation of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Action," occurred for the licensee's failure to assure that a condition adverse to quality was corrected. Specifically, the licensee identified oil leakage on Diesel Generator 2 mechanical overspeed governor drive flange as a condition adverse to quality on June 23, 2009, and failed to correct the condition of oil leakage as demonstrated by a September 9, 2009, failure of the Diesel Generator 2 due to loose fasteners at this location. The licensee entered this issue in their corrective action program as CR-CNS-2009-06716.

The finding is more than minor because it is associated with the equipment performance attribute of the mitigating systems cornerstone, and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events. Using the screening worksheet in Manual Chapter 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings", the inspectors determined that the finding has very low safety significance because it was not a design or qualification deficiency and did not result in the loss of any system safety function. This finding has a crosscutting aspect in the corrective action program component of the Problem Identification and Resolution area because the licensee's periodic trends and assessments did not identify programmatic and common cause problems, in that the licensee's periodic trends and assessments did not recognize the significance of precursor events related to fasteners loosening and prompt action to prevent further problems on the emergency diesel generators [P.1(b)]

Inspection Report# : 2009005 *(pdf)*

Significance: G Dec 31, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Preclude Repetition of Loss of Shutdown Cooling
A self-revealing noncited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," was identified for the licensee's failure to preclude repetition of a significant condition adverse to quality, namely the loss of shutdown cooling caused by drawing a vacuum in the reactor pressure vessel. Specifically, corrective actions taken after a March 17, 1994, loss of shutdown cooling event were inadequate to prevent a similar event from occurring on November 7, 2009. The licensee entered this issue in their corrective action program as CR-CNS-2009-09486.

The finding is more than minor because it affected the procedure quality 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). The inspectors determined that Manual Chapter 0609, Appendix G was applicable due to the fact that at the time of the performance deficiency was discovered, the plant was in a forced outage with residual heat removal system in service. Using Checklist 8 in Attachment 1, "Shutdown Operations Significance Determination Process Phase 1 Operational Checklists For Both PWRs and BWRs", the inspectors determined that although the residual heat removal mitigation capability on the checklist was not met, the criteria for requiring a phase 2 or phase 3 analysis were not satisfied. The inspectors determined that no cross cutting aspects were appropriate for this finding due to the fact that the performance deficiency occurred in 1994 and is not reflective of current performance.

Inspection Report# : 2009005 *(pdf)*

Barrier Integrity

Significance: G Dec 31, 2009
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Identify Foreign Material in the Reactor Core
The inspectors identified a noncited violation of 10 CFR 50 Appendix B, Criterion XVI, "Corrective Action," for the licensee's failure to identify a condition adverse to quality. Specifically, the licensee failed to identify of foreign material in the reactor core during the core verification process of Procedure 10.2, "Core Verification." This foreign material was identified by inspectors during a review of the core verification video following vessel reassembly. The licensee entered this issue in their corrective action program as CR CNS 2009 08890.

The finding is more than minor because it was associated with the cladding performance attribute of the barrier integrity cornerstone, and affected the cornerstone objective to provide reasonable assurance that physical design barriers (fuel cladding, reactor coolant system and containment) protect the public from radionuclide releases caused by accidents or events. Using the Manual Chapter 0609, Appendix A, Phase 1 screening worksheet, the inspectors determined that the finding has very low safety significance because it is associated with a potential failure of the fuel barrier. This finding has a crosscutting aspect in the area of human performance associated with resources because the licensee's procedure for the core verification process is silent on potential identification of foreign material in the core [H.2(c)].

Inspection Report# : 2009005 *(pdf)*

Significance: G Dec 31, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Procedure Violation Results in Loss of Fuel Pool Cooling
A self-revealing noncited violation of Technical Specification 5.4.1.a was identified regarding the licensee's failure to follow the requirements of System Operating Procedure 2.2.18, "4160V Auxiliary Power Distribution System." Specifically, operators preparing the 4160 F bus for a maintenance outage secured the wrong fuel pool cooling pump. When the bus was subsequently de-energized, a loss of fuel pool cooling occurred. The licensee entered this issue in their corrective action program as CR-CNS-2009-07770.

The finding is more than minor because it is associated with barrier integrity cornerstone attribute of configuration control, and adversely affected the cornerstone objective of maintaining functionality of the spent fuel pool cooling system to provide reasonable assurance that the fuel cladding physical design barrier protects the public from radionuclide releases caused by accidents or events. Because the plant was shutdown at the time this performance deficiency occurred, the inspectors used Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process." Using Checklist 7 in Attachment 1, "Shutdown Operations Significance Determination Process Phase 1 Operational Checklists For Both PWRs and BWRs", the inspectors determined that the finding had very low safety significance because every item on the checklist was met. The finding has a crosscutting aspect in the area of human performance associated with work practices because the licensee failed to effectively use required self-checking error prevention tools [H.4(a)].

Inspection Report# : 2009005 *(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Dec 31, 2009

Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Establish an Adequate Procedure to Ensure Constant Communications in a Locked High Radiation Area
The inspectors identified a noncited violation of Technical Specifications 5.4.1 for a failure to establish a procedure with adequate provisions to control work inside a locked high radiation area. Specifically, although the licensee's procedure required constant communications with workers in a locked high radiation area, the procedure had no provisions for providing a reasonable assurance that constant communications was being maintained during the duration the workers were inside the area. As a result, on October 6, 2009, the licensee lost constant communications with workers inside a locked high radiation area when the workers unknowingly bumped the cell phone and de-energized it. The licensee's immediate corrective action was to lock the keyboard on the cell phones to prevent them from inadvertently being turned off. The licensee entered the finding into the corrective action program as Condition Report CR-CNS-2009-07718.

The inspectors determined that the failure of licensee procedures to contain adequate provisions that work inside a locked high radiation area would be controlled through constant communications is a performance deficiency. The finding was more than minor because, if left uncorrected, the performance deficiency has the potential to lead to a more significant safety concern. Using the Occupational Radiation Safety Significance Determination Process the inspectors determined this finding had very low safety significance because the finding did not involve ALARA planning and work controls, did not result in an overexposure, did not involve a substantial potential for overexposure, and did not compromise the licensee's ability to assess dose. Additionally, the finding had a crosscutting aspect in the area of human performance, resources component, because the licensee failed to ensure that equipment used to control work inside a posted locked high radiation area was adequate for environment and working conditions [H.2(d)].

Inspection Report# : 2009005 *(pdf)*

Significance:  Dec 31, 2009
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Follow Radiation Work Permit Requirements in Two Instances
The inspectors reviewed a self-revealing, noncited violation of Technical Specifications 5.4.1 involving two examples of a failure to follow Radiation Work Permit requirements. In the first example, workers were not monitored with telemetry and constant coverage by a radiation protection technician was not provided as required by the radiation work permit. In the second example, a worker was not monitored with telemetry as required by the special work permit. As a result, the licensee conducted a stand-down to reinforce expectations for compliance with radiation work permits, instituted management challenges at the access control point, and began conducting an apparent cause evaluation. This was entered into the licensee's corrective action program as Condition Report CR-CNS-2009-08197 and CR-CNS-2009-08623.

The inspectors determined that the failure to meet radiation and special work permit requirements was a performance deficiency. The finding is more than minor because it involved multiple failures of radiation protection measures which, if left uncorrected, could become a more significant safety concern. Using the Occupational Radiation Safety Significance Determination Process, the inspectors determined this finding had very low safety significance because the finding involved an ALARA planning and work controls and the licensee's average collective dose is less than 240 person-rem per unit. The finding had a crosscutting aspect in the area of human performance associated with work practices because of the lack of self and peer checking to ensure work activities were performed safely [H.4(a)].

Inspection Report# : 2009005 *(pdf)*

Public Radiation Safety

Physical Protection

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

Miscellaneous

Last modified : November 29, 2010