

Dresden 2

1Q/2006 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance:  Jan 27, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Installation of Various Lighting Fixtures Without Using Plant Modification Process

On January 27, 2006, a performance deficiency involving a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion III, Design Control, was identified by the inspectors. The finding involved the licensee's failure to use the plant modification process, when installing new design lighting fixtures, to ensure Seismic Category II over Seismic Category I requirements were met when installing these fixtures in various areas of the plant, including the Unit 3 emergency diesel generator room.

The finding was greater than minor because, if left uncorrected, the licensee's practice of modifying the plant without using the modification process would become a more significant safety concern because safety related and safe shutdown equipment could become inoperable. Also, the finding impacted the Mitigating Systems Cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events. The finding was of very low safety significance because the licensee determined, through engineering evaluation, that the deficient lighting fixture installations did not adversely affect the operability of any important systems. In addressing this issue, the licensee immediately prevented the installation of additional lighting fixtures without engineering review and approval; thoroughly walked down all areas of the plant to identify the full extent of condition of the problem; corrected all of the deficiencies; and prepared an engineering evaluation to assess the impact of these deficiencies on safety related and safe shutdown equipment.

Inspection Report# : [2006003\(pdf\)](#)

Significance:  Jan 20, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Identify Inadequate Procedure for Surveillance of Remote Shutdown Emergency Lights

The inspectors identified an NCV of Technical Specification (TS) 6.8.A.1, which required that written procedures be implemented covering the activities in the applicable procedures recommended by Regulatory Guide 1.33, including procedures for surveillances. The surveillance procedure for testing Appendix R, safe shutdown emergency lighting was inadequate because it failed to use an approved testing method of the Technical Requirements Manual (TRM). The licensee entered this performance deficiency into the CAP for resolution.

This finding is associated with the Mitigating Systems Cornerstone. The finding was greater than minor because the lack of emergency lighting could result in a delay in accomplishing safe shutdown actions. The finding was of very low safety significance because of the availability of portable head lamps.

Inspection Report# : [2006002\(pdf\)](#)

Significance:  Jan 06, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Water intrusion in the high pressure coolant injection system steam supply line.

The NRC identified a NCV for the failure to properly evaluate extended power uprate for its impact on post-scrum reactor vessel water level to prevent water intrusion into the HPCI steam supply line. The NRC concluded that EGC implemented extended power uprates on Unit 2 in 2001 and Unit 3 in 2002, but failed to verify the adequacy of design of the implementation of extended power uprate to respond to changes in post-scrum reactor vessel water level to prevent water intrusion into the HPCI steam supply line. This violation was identified as a result of the inspectors' review of the January 30, 2004, scram event. Water intrusion into the HPCI system turbine steam supply line occurred as a result of the scram and rendered the HPCI system inoperable. The NRC determined that EGC was in violation during 2001 through 2004, however, the violation was identified and corrective actions were taken after the January 2004 scram event. After considering the information developed during the inspection and the additional information provided in a March 6, 2006, letter from the licensee, the NRC concluded that the final significance of the finding is appropriately characterized as Green

Inspection Report# : [2005014\(pdf\)](#)

Inspection Report# : [2004002\(pdf\)](#)

Inspection Report# : [2006008\(pdf\)](#)

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Significance: Nov 06, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Revision to Work Order Instructions Resulted in the Temporary Loss of Shutdown Cooling

On November 6, 2005, a performance deficiency involving a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was self revealed when a loss of shutdown cooling occurred while maintenance activities were being performed on the unit auxiliary transformer. Maintenance planning personnel failed to ensure that a revision to work order instructions, associated with the removal of an electrical lead (jumper) from the unit auxiliary transformer, remained bounded by the clearance order boundary for the reserve auxiliary transformer. As a result of lifting the lead, the associated 4160 volt bus de-energized and caused a trip of the A shutdown cooling pump which was providing decay heat removal for the reactor coolant system. In addressing this issue, the licensee conducted an apparent cause evaluation, added this event to their lessons learned database, and generated separate work orders for each transformer.

The finding was greater than minor because, if left uncorrected, the licensee's failure to ensure revised work order instructions remain bounded by the existing clearance order boundary would become a more significant safety concern by resulting in excessive heatup of the reactor coolant system or rendering safety related equipment inoperable. In evaluating this issue through the SDP, the inspectors answered "No" to all three questions that require phase 2 and 3 analyses. The finding did not increase the likelihood of a loss of reactor coolant system inventory; did not degrade the licensee's ability to terminate a leak path or add reactor coolant system inventory; and did not degrade the licensee's ability to recover decay heat removal once it was lost. In addition, the reactor coolant system temperature only increased by two degrees, from 92 degrees to 94 degrees, before shutdown cooling was re-established to the reactor vessel. Therefore, the inspectors determined that this finding was of very low safety significance.

Inspection Report# : [2006003\(pdf\)](#)

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Significance: Nov 01, 2005

Identified By: NRC

Item Type: FIN Finding

Identification of Electromatic Relief Valve (ERV) Degradation

The inspectors identified a failure to enter discrepancies into the corrective action program that were previously identified in work orders associated with the electromatic relief valves (ERVs) during the 2005 Unit 2 and 2004 Unit 3 refueling outages. This information was important for confirming the operability of the relief valves following the discovery of degraded ERVs at the Quad Cities Station.

The finding was greater than minor because if left uncorrected, the extent of degradation of ERVs would not be fully identified or evaluated which could result in inappropriately concluding that equipment important to safety was operable. The inspectors concluded that the finding impacted the Mitigating Systems Cornerstone. The inspectors determined that the finding did not result in an actual loss of a safety function; and concluded that this issue was of very low safety significance.

Inspection Report# : [2006002\(pdf\)](#)

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Significance: Sep 28, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Unable to Remotely Trip the 2B Service Water Pump from Control Room from Safety Related 4160 Volts bus 24

A self-revealing finding involving a non-cited violation of Technical Specification 5.4, "Procedures," was identified on April 15, 2005, when control room operators were unable to remotely trip the 2B service water pump from the control room. The inability to trip the pump from safety related 4160 Volt bus 24 was due to the performance of poor maintenance on the pump's breaker and inadequate post-maintenance testing. The inability to trip the breaker had the potential to render all other loads on bus 24 inoperable, including one division of the containment cooling service water system, or add an additional unanalyzed load on the emergency diesel generator.

The finding was greater than minor because, if left uncorrected, it could become a more significant safety concern because inadequately performed breaker maintenance could render additional safety-related systems inoperable. The finding impacted the Mitigating Systems cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events. As a result of this event, the licensee replaced the trip coil, verified the installation of all the applicable trip coils on both units, revised the work order instructions, and evaluated post maintenance testing of 4 KV breakers. The finding was of very low safety significance because the other division of the containment cooling service water system was available and the licensee was able to trip the breaker locally at the bus. This finding was related to the cross-cutting issue of human performance because electricians failed to properly reinstall the trip coil for the 2B service water pump breaker per the work instructions and the work instructions failed to specify an adequate post maintenance test.

Inspection Report# : [2005010\(pdf\)](#)

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Significance: Aug 12, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Technical Specification Requirements for Position Verification Not Met

The inspectors identified a Non-Cited Violation of Technical Specification Surveillance Requirement 3.7.2.1 regarding the failure to periodically verify the position of manual valves. Specifically, the licensee did not verify the correct position of 11 manual valves that were not locked, sealed, or otherwise secured in position in the diesel generator cooling water (DGCW) subsystem flow path associated with the DGCW pump motor coolers. The licensee's corrective actions included verifying and then locking the affected valves in the open position and revising operating procedures to reflect that the affected valves are locked in the open position.

This finding was more than minor because it was associated with the mitigating systems attribute of configuration control, which affected the mitigating systems cornerstone objective of ensuring the availability and reliability of the DGCW system to respond to initiating events to prevent undesirable consequences. The finding was of very low safety significance based on the licensee verifying the valves were in their correct position and screened as Green using the SDP Phase 1 screening worksheet.

Inspection Report# : [2005009\(pdf\)](#)

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Significance: Aug 12, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Unanalyzed Diesel Loading Sequence in Operating Procedures

The inspectors identified a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," due to the design basis emergency diesel generator (EDG) loading sequence during a loss of coolant accident/loss of offsite power not being correctly translated into procedures or instructions. Specifically, the loss of power procedure provided guidance to operate the plant outside the analyzed EDG loading sequence. The licensee's corrective actions included evaluating the effect of the procedure's unanalyzed load sequence and concluded that the EDG would have been capable of performing its safety function.

This finding was more than minor because it was associated with the attribute of procedure quality, which could have affected the mitigating systems cornerstone objective of ensuring the availability and reliability of the EDGs to respond to initiating events to prevent undesirable consequences. The finding was of very low safety significance based on the results of the licensee's analysis and screened as Green using the SDP Phase 1 screening worksheet.

Inspection Report# : [2005009\(pdf\)](#)

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Significance: Jul 25, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Lack of Prioritization for Performing TS 3.4.3.1 Surveillance Testing and Valve Inspections for Target Rock Valves and Corrective Action Assignments for the 4G Valve

A finding involving a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Actions," was identified by the inspectors on July 25, 2005, for the licensee's lack of timely actions to promptly identify and correct out-of-tolerance lift setpoints for the main steam safety valves and the main steam safety/relief valves (Target Rock valves). The licensee's actions lacked prioritization in performing Technical Specification required surveillance testing on the Unit 2 and Unit 3 Target Rock safety/relief valves, in determining the cause of the surveillance test failures on the Target Rock valves, and in not assigning corrective actions to determine the cause of the 4G safety valve Technical Specification surveillance test failure. The licensee's lack of timely actions resulted in the delayed issuance of a Licensee Event Report following the discovery of degradation of the Unit 2 Target Rock valve during disassembly of the valve.

The finding was greater than minor because, if left uncorrected, the lack of prioritization of the licensee's actions could lead to the valves not meeting the safety function of preventing over-pressurization of the reactor coolant system. The finding could also lead to the licensee unknowingly operating the units with inoperable safety-related equipment. The finding impacted the Mitigating System cornerstone objective to ensure availability, reliability, and capability of systems that respond to initiating events. The finding was of very low safety significance because the ability of the main steam Target Rock safety/relief valves and the 4G main steam safety valve to function to prevent over-pressurization of the reactor coolant system was not invalidated by the inability of the valves to lift at the prescribed setpoint. In addressing this issue, the licensee discontinued in-plant Technical Specification testing after obtaining approval from the NRC, submitted an analysis to the NRC for determining that the drift condition of the valves was still bounded by the analysis for over-pressurization events, and installed refurbished valves in December 2004. This finding was related to the cross-cutting issue of problem identification and resolution because the licensee's actions were untimely and unfocused.

Inspection Report# : [2005010\(pdf\)](#)

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Significance: Apr 01, 2005

Identified By: NRC

Item Type: NCV NonCited Violation

Safe Shutdown Procedure Failed to Specify Correct Number of Turns for Opening Valve

Green. A finding of very low safety significance was identified by the inspectors for a violation of 10 CFR Part 50, Appendix B requirements. The licensee failed to specify the correct number of turns in a hot shutdown procedure for partially opening a valve relied upon to mitigate a fire. The incorrect number of turns specified in the procedure could have caused a significant delay in performance of safe shutdown actions in the event of a fire. Once identified, the licensee entered the finding into their corrective action program to revise the affected procedures.

This finding was more than minor because the procedural error could have caused a significant delay in the performance of safe shutdown actions in the event of a fire. The issue was of very low safety significance because the licensee's analysis showed that sufficient margin remained for the performance of the safe shutdown actions. The finding was a Non-Cited Violation (NCV) of 10 CFR Part 50, Appendix B, Criterion V, which required procedures affecting quality to be of a type appropriate to the circumstances. (Section 1R05.5b)

Inspection Report# : [2005002\(pdf\)](#)

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Significance: Dec 02, 2002

Identified By: NRC

Item Type: NCV NonCited Violation

Failure to Perform Weld Inspections by Independent Certified Quality Verification Inspectors

On February 19 and March 12, 2006, a performance deficiency involving a Non-Cited Violation (NCV) of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified by the inspectors. The finding involved the licensee's failure to follow procedures, in that, approximately 110 safety related welds were not inspected by independent, certified Quality Verification inspectors between December 2, 2002, and May 23, 2003.

This finding was greater than minor because, if left uncorrected, the finding would become a more significant safety concern. The failure to perform adequate safety-related weld exams could have allowed undetected deficiencies to be placed into or have remained in service. The inspectors determined that the finding could not be evaluated using the SDP in accordance with NRC Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," because the SDP for the Mitigating Systems Cornerstone only applied to degraded systems/components, not to deficiencies associated with the procedures that are designed to detect component degradation. Therefore, the finding was reviewed by regional management in accordance with IMC 0612, Section 05.04c, "Screen for Significance," and was determined to be of very low safety significance. In addressing this issue, the licensee terminated this program, generated an issue report, and planned to inspect 100 percent of the identified welds.

Inspection Report# : [2006003\(pdf\)](#)

Barrier Integrity

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Significance: May 02, 2005

Identified By: NRC

Item Type: FIN Finding

Removal of the 2D Traversing Incore Probe (TIP) Drawer With Clearance Order Danger Tag Attached

On May 2, 2005, a performance deficiency was identified by the inspectors. The licensee failed to identify that corrective actions were ineffective from a previous 2004 event, involving the failure to follow the clearance order process. Also, an instrument maintenance technician failed to properly implement annual clearance order process training. As a result, the instrument maintenance technician removed the 2D traversing incore probe (TIP) drawer which had a clearance order danger tag attached to the control switch. The primary cause of this finding was related to the cross-cutting issues of human performance and problem identification and resolution.

The finding was more than minor because, if left uncorrected, the licensee's failure to ensure plant personnel adherence to the clearance order process would become a more significant safety concern by resulting in significant personnel safety consequences, and because it impacted the barrier integrity cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The removal and re-installation of the 2D traversing incore probe drawer did not adversely affect the ability to ensure containment isolation using the ball check containment isolation valve. The licensee briefed all maintenance personnel on this event and added more detailed discussion on the clearance order process to the annual site training. Therefore, this finding screened as having very low safety significance.

Inspection Report# : [2005008\(pdf\)](#)

Emergency Preparedness

Occupational Radiation Safety

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Significance: Jun 08, 2005

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Ensure That a Gate to a Posted LHRA was Secured Following Work in the Area

On June 8, 2005, a self-revealing finding of very low safety significance and an associated violation of NRC requirements were identified for the failure to adequately secure/lock the gate to a posted locked high radiation area (LHRA) and physically challenge the access to verify closure and proper latching in accordance with radiation protection procedures. As a result, access to a posted LHRA was unsecured for a period of approximately 24-hours.

The issue was more than minor because it was associated with the Program/Process and Human Performance attributes of the Occupational Radiation Safety cornerstone in that the cornerstone objective to ensure adequate protection of worker health and safety from exposure to radiation was impacted. The issue represents a finding of very low safety significance because it did not involve ALARA planning or work controls, no unauthorized entry into the posted locked high radiation area occurred so there was no overexposure or substantial potential for an overexposure, nor was the licensee's ability to assess worker dose compromised. A non-cited violation of Technical Specification 5.4.1 was identified for the failure to comply with the radiation protection procedure that governs the control of access into high radiation areas. Corrective actions following the identification of the problem included tailgate training for radiation protection staff, development of enhanced pre-job briefing forms for high radiation area entry, performance of an additional physical verification to ensure barriers are secure following work in a locked high radiation area, and plans for additional training specific to high radiation area controls intended for all station radiation workers. Since the principal cause of the problem was a human performance deficiency, the finding also relates to the cross-cutting area of human performance.

Inspection Report# : [2005010\(pdf\)](#)

Public Radiation Safety

Physical Protection

[Physical Protection](#) information not publicly available.

Miscellaneous

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