Dresden 2
4Q/2004 Plant Inspection Findings

Initiating Events

Significance: G Oct 08, 2004
Identified By: Self Disclosing
Item Type: FIN Finding
Performance Issues Which Resulted in the Initiation of a Manual Scram on Unit 2 Due to Failure of the 2A Recirculation Pump Motor
A self-revealed finding of very low safety significance was identified involving several performance issues which resulted in the initiation of a Unit 2 manual scram on April 24, 2004, due to failure of the 2A recirculation pump motor. The performance issues included an inadequate process for rewinding the 2A recirculation pump motor when it was installed in 1999, an inadequate evaluation of the testing of the motor before installation, and the failure to perform post maintenance testing of the reactor building closed cooling water system piping to identify leakage. This failure resulted in the deposit of a conductive substance inside the motor. The licensee identified a number of corrective actions including replacing the 2A recirculation pump motor and revising Exelon Nuclear Engineering Standard NES-EIC-40.01 to include enhanced testing requirements.

The finding was more than minor because it affected the initiating events cornerstone objective to limit the likelihood of an initiating event. The finding was determined to be of very low safety significance because all equipment and systems operated as designed during the scram.
Inspection Report# : 2004010*(pdf)*

Significance: G Apr 04, 2004
Identified By: NRC
Item Type: FIN Finding
Several Performance Issues Which Resulted in the Initiation of a Manual Scram Due to High Stator Water Cooling (SWC) System Temperature on December 11, 2003
A self-revealed finding was identified involving several performance issues which resulted in the initiation of a manual scram on Unit 2 due to high stator water cooling system temperature on December 11, 2003. The performance issues included no process for post-maintenance flushing/purging of instrument air lines to prevent foreign material intrusion into pneumatic systems, failure to schedule post-outage controller tuning, and failure to identify and establish monitoring of stator water cooling generator inlet temperature as a critical parameter.

The finding was more than minor because it affected the initiating events cornerstone objective to limit the likelihood of an initiating event. The finding was determined to be of very low safety significance (Green) because all equipment and systems operated as designed during the scram. The licensee identified a number of corrective actions including replacing the stator water cooling temperature control valve controller, identifying critical parameters that require monitoring during non-licensed operator and control room rounds, and establishing requirements for post-maintenance flushing of instrument air lines.
Inspection Report# : 2004002*(pdf)*

Mitigating Systems

Significance: G Dec 15, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Take Prompt and Effective Actions Regarding the Validation of Surveillance Tests Performed after it Was Identified That the Some of the Maintenance and Test Equipment (M&te) Used to Perform
On December 15, 2004, the inspectors identified a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion XVI. The licensee failed to take prompt and effective actions regarding the validation of completed surveillance tests after it was identified that maintenance and test equipment (M&TE) used to perform the tests was identified as lost on October 4, 2004. The accuracy of the instrumentation used during the performance of the tests could not be demonstrated. The licensee had knowledge of the problem and the opportunity to re-perform the surveillance tests during a maintenance outage between November 2, and December 10, 2004, and chose not to re-perform the surveillance tests. As corrective action, the licensee prepared an engineering evaluation that gave reasonable assurance that the functions used by the M&TE were within calibration when these tests were performed. The primary cause of this finding was related to the cross-cutting area of Problem Identification and Resolution.

The finding was greater than minor because if left uncorrected the failure to re-perform surveillance testing after M&TE is lost could become a

more significant safety concern if it can not be adequately demonstrated that the equipment tested with the M&TE will perform within expected parameters. This finding was of very low safety significance because the inspector identified that portions other surveillance tests using different, calibrated M&TE, could be combined to show that the installed equipment was satisfactory. (Section 4OA2)
Inspection Report# : 2004013*(pdf)*

Significance: G Oct 08, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Source of Make-up Water
A finding of very low significance was identified by the inspectors on June 5, 2004, involving a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings." The abnormal operating procedure instructions for response to external flooding, and surveillance test procedure for the diesel driven pump necessary to provide make-up to the isolation condenser for response to external flooding, were not adequate for the circumstances. The licensee planned to change the surveillance test procedure and perform a full flow test of the pump in the near future. The licensee planned to review the abnormal operating procedure and revise the procedure as appropriate.

This finding was more than minor because it affected the equipment performance and procedure quality attributes of the mitigating systems cornerstone, and affected the cornerstone objective of ensuring the reliability and capability of systems that respond to initiating events to prevent undesirable consequences. The issue was of very low safety significance based on the low initiating event probability, and because of the slow onset of the flooding and the reduced decay heat in the reactor core at the time recovery actions would be necessary, the licensee would be able to reasonably perform recovery actions that would prevent core damage.
Inspection Report# : 2004010*(pdf)*

Significance: G Oct 08, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Operators Failed to Lock Valve in Unit 2 Drywell
A finding of very low safety significance was identified by the inspectors involving a Non-Cited Violation of Technical Specification 5.4.1. Operators failed to lock manual feedwater isolation Valve 2-220-57B when returning the valve to service. This valve was downstream of where the high pressure core injection (HPCI) system taps into the feedwater line. The inspectors identified this issue during the drywell closeout after the maintenance outage on September 23, 2004. The operators were counseled and the licensee will require out-of-service checklists to be brought into the drywell in the future. The primary cause of this violation was related to the cross-cutting issue of Human Performance.

This issue was more than minor because it was repetitive. Other valves were found unlocked inside the drywell by the inspectors during the drywell close out after the last Unit 2 refueling outage in November 2003. The issue was of very low safety significance because the valve was in the correct position.
Inspection Report# : 2004010*(pdf)*

Significance: G Oct 08, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Improperly Set Open Torque Switch Bypass of the Isolation Condenser Outboard Condensate Return Valve
A self-revealed finding of very low safety significance involving a Non-Cited Violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," was identified. Inadequate procedural guidance resulted in the failure of electricians to properly set the open torque switch bypass on Valve 2-1301-3, "Isolation Condenser Outboard Condensate Return Valve," on October 8, 1999. This resulted in the failure of the valve to open during an event that occurred on April 24, 2004. The licensee counseled the individuals and revised the maintenance procedure.

This finding was more than minor because it involved the equipment performance attributes of the mitigating systems cornerstone and affected the cornerstone objective of availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This issue was of very low safety significance in that the isolation condenser was only being used for pressure control at the time of the event and other methods of pressure control were available, and in addition, the licensee could have manually opened the valve if necessary.
Inspection Report# : 2004010*(pdf)*

Significance: G Oct 08, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Prevent Recurrence of Inoperable Condenser Low Vacuum Reactor Protection System Switches
A finding of very low significance was identified on July 1, 2004, by the inspectors involving a Non-Cited Violation of Technical Specification 3.3.1.1. The licensee failed to take adequate corrective actions to prevent recurrence of inoperable condenser low vacuum reactor protection system switches, failed to recognize the switches were inoperable, and failed to enter the appropriate Technical Specification Limiting

Condition for Operation when the 3C and 2A turbine main condenser low vacuum reactor protection system scram channels were inoperable. The primary cause of the violation was related to the cross-cutting area of Problem Identification and Resolution.

The finding was more than minor because it affected the mitigating systems cornerstone objective by affecting the reliability of the reactor protection system. The finding was determined to be of very low safety significance (Green) because one inoperable channel would not prevent the reactor to scram on low condenser vacuum. Corrective actions by the licensee included installing temporary vent valves on the 3C and 2A sensing lines, enhancing operations training materials, revising the operations's procedure, and performing internal and external condenser walkdowns during the next outage on Unit 2 and Unit 3.
Inspection Report# : 2004010*(pdf)*

Significance: G Jun 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Violation of Technical Specification Section 3.5.1 Unit 2 High Pressure Coolant Injection (HPCI) suction swap overloads were lifted and not relanded
A self-revealed finding was identified involving a violation of Technical Specification 3.5.1, when the Unit 2 high pressure coolant injection system (HPCI) suction swap-over leads were lifted on March 9, 2004, and not re-landed until discovery on April 12, 2004.

This finding was more than minor because if left uncorrected, the deficiency would become a more significant safety concern. The finding is of very low safety significance because, although they would not have automatically swapped from the condensate storage tanks to the suppression pool, the HPCI suction valves were capable of manual realignment. The station associated alarm procedure requires operator actions to manually perform the swap if automatic realignment does not occur upon a receipt of an alarm of condensate storage tanks level low or torus level hi. To address this issue, the licensee re-landed the leads, reinforced conduct of maintenance expectations, and required increased tracking of work requests.
Inspection Report# : 2004006*(pdf)*

Significance: G Jun 14, 2004
Identified By: NRC
Item Type: FIN Finding
Crew Performance on the Dynamic Scenario Portion of the 2004 Facility-Administered Annual Requalification Examination Operating Test
A finding of very low safety significance was identified. The finding was associated with unsatisfactory operating crew performance on the simulator during facility-administered licensed operator requalification examinations. Of the 12 crews evaluated, three did not pass their annual operating tests. The finding is of very low safety significance because the failures occurred during annual testing of the operators on the simulator, because there were no actual consequences to the failures, and because the crews were removed from watch-standing duties, retrained, and re-evaluated before they were authorized to return to control room watches.
Inspection Report# : 2004006*(pdf)*

Significance: G Jun 14, 2004
Identified By: NRC
Item Type: FIN Finding
Individual Operator Performance on the Job Performance Measure or Dynamic Scenario Portion of the 2004 Facility-Administered Annual Requalification Examination Operating Test
A finding of very low safety significance was identified. The finding was associated with unsatisfactory performance of individual operators on the annual licensed operator requalification operating test. Of the 62 licensed operators examined, unsatisfactory performance was identified for two operators during job performance measures (JPMs) and 14 operators in the dynamic scenario portion. The finding is of very low safety significance because the failures occurred during annual testing of the operators on the simulator and simulated performance of tasks in the plant, because there were no actual consequences to the failures, and because the individuals were removed from watch-standing duties, re-trained, and re-evaluated before they were authorized to return to control room watches.
Inspection Report# : 2004006*(pdf)*

Significance: G Apr 04, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Implement Adequate Corrective Action
A finding of very low safety significance was identified by the inspectors involving a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion XVI, for the failure to implement adequate corrective action following the issuance of a previous Non-Cited Violation dated February 6, 2001, in that on May 28, 2002, the licensee again failed to correctly evaluate the test data from performance testing of the Unit 3 isolation condenser. Corrective actions by the licensee included conducting testing of the isolation condenser with a revised methodology and two revisions to the design analysis.

This finding was more than minor because if left uncorrected this issue could become a more significant safety concern. Specifically, the testing deficiencies could allow the acceptance of an isolation condenser that actually had degraded below its design requirements. The issue was of very low safety significance because based on additional testing with a revised methodology as well as the revised analysis, it was concluded that the isolation condenser was capable to perform its design function.
Inspection Report# : 2004002*(pdf)*

Barrier Integrity

Significance: G Oct 08, 2004
Identified By: NRC
Item Type: FIN Finding
The Licensee Did Not Control Tools and Equipment Staged to Install a Temporary Modification to Keep the Control Room Emergency Ventilation System Dampers Open in the Event of an Accident
A finding of very low safety significance was identified on August 3, 2004, by the inspectors during the walkdown of a corrective action for a previous event. The licensee had an abnormal operating procedure requirement to have tools and equipment staged to install a temporary modification to keep the control room emergency ventilation system dampers open in the event of an accident. The equipment necessary to install the temporary modification was in various stages of disarray. Some equipment was not labeled and some necessary tools were missing. The licensee identified a number of corrective actions including properly packaging the necessary tools and equipment, revising procedures, and initiating a training request to ensure operations personnel are properly trained in the use of the tools and equipment.

The finding was more than minor because it affected the Barrier Integrity Cornerstone attributes of configuration control and the cornerstone objective of protecting persons in the control room from radionuclide releases caused by accidents or events. The issue was of very low safety significance due to it only impacting the radiological barrier function of the control room emergency ventilation system. This was not a violation of regulatory requirements.
Inspection Report# : 2004010*(pdf)*

Significance: G Oct 08, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
The Licensee Did Not Move the Reactor 05000249/2004010-03 Building Ventilation System Into the Maintenance Rule (a)(1) Category
A finding of very low safety significance was identified by the inspectors involving a Non-Cited Violation of 10 CFR 50.65, "Maintenance Rule," requirements. The licensee failed to identify that the number of functional failures for the reactor building ventilation system had exceeded the established performance criteria and did not move the reactor building ventilation system into the a(1) category. Once identified, the reactor building ventilation system was moved into the a(1) category on October 8, 2004. The licensee had not yet determined system goals or established corrective actions by the close of the inspection period. The primary cause of the violation was related to the cross-cutting area of Problem Identification and Resolution in that functional failures of the system were not properly entered into the corrective action program.

This issue was more than minor because it involved the design control and barrier performance attributes of the barrier integrity cornerstone; and affected the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The issue was of very low safety significance because the licensee was still able to maintain secondary containment.
Inspection Report# : 2004010*(pdf)*

Significance: G Oct 08, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
The Licensee Failed to Correctly Restore the Control Room Emergency Ventilation System to Operable Status Following Maintenance
A self-revealed finding of very low safety significance involving a Non-Cited Violation of Technical Specification 3.7.4 was identified on April 28, 2004. The licensee failed to correctly restore the control room emergency ventilation system to operable status following maintenance. This left the control room emergency ventilation system inoperable for greater than its Technical Specification allowed outage time. This finding was self-revealed when the system did not operate properly several days later during a routine system realignment. As corrective action, the licensee revised a procedure to give better guidance on how to remove the temporary modification.

The issue was more than minor because it affected the Barrier Integrity Cornerstone attributes of design and configuration control and the cornerstone objective of protecting persons in the control room from radionuclide releases caused by accidents or events. The issue was of very low safety significance due to the short duration of the condition of the system.
Inspection Report# : 2004010*(pdf)*

Significance: G Oct 08, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Unit 2 Torus to Hotwell Isolation Valve Mispositioned
A self-revealing event, that operators mispositioned a valve in the flow path for draining the Unit 2 torus to the Unit 2 hotwell, was identified on October 8, 2004. Operators failed to return valve 2-1501-35, "U2 Torus to Hotwell Isolation Valve," to its correct position after completion of Clearance Order 30831 on September 17, 2004. This event was a Non-Cited Violation of TS 5.4.1 having very low safety significance. The primary cause of this violation was related to the cross-cutting area of Human Performance.

The finding was greater than minor, in that, the failure to follow procedures when returning valves to the correct position after being taken out-of-service, if left uncorrected, could become a more significant safety concern. This finding had very low safety significance because the mispositioned valve was identified, returned to the correct position, and the torus level was returned to Technical Specification requirements within the Technical Specification allowed outage time. The involved non-licensed operators were temporarily removed from shift duties. The licensee re-verified a sample of 10 safety related clearance orders; performed a valve lineup on the accessible portions of the high pressure coolant injection, low pressure coolant injection, and core spray systems; and re-verified a sample of the last five clearance orders performed by the individuals involved in this event. No additional issues were identified. (Section 1R04)
Inspection Report# : 2004013*(pdf)*

Significance: G Aug 18, 2004
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Perform an Operability Evaluation
A finding was identified by the inspectors involving the failure to adequately perform an operability evaluation. This failure was a Non Cited Violation of 10 CFR 50, Appendix B, Criterion III, "Design Control." On November 13, 2003, the licensee identified in Engineering Evaluation EC34593 that 8 inch diameter 150 lb flanges were installed on the main steam relief valve discharge lines on each unit since construction. The engineering evaluation stated that 300 lb flanges were required. Operability Evaluation 03-013, "Electromatic Relief Valve (ERV) Discharge Piping Flanges," stated that the discharge flanges were operable and no further actions were required. The inspectors reviewed the operability evaluation on August 18, 2004. The inspectors identified that the licensee's evaluation demonstrated that the stresses on the flanges exceeded the Code allowable values, but the licensee's evaluation did not state this fact. The operability evaluation was closed with no specific action required to return the flanges to their design specifications. The primary cause of this violation was related to the cross-cutting area of Human Performance.

The finding was greater than minor because if left uncorrected the failure to perform adequate operability evaluations could become a more significant safety concern. If the inspectors had not intervened the licensee would not have taken action to bring the relief valve discharges flanges up to Code requirements. As corrective action, the licensee re-performed the evaluation and determined that the flanges were operable, but degraded. The licensee planned further evaluation to make a successful case for Code Committee approval or replace the flanges during the next refueling outage for both Units 2 and 3. To correct the problems with operability evaluations, the licensee had previously implemented a Technical Rigor program. This finding had very low safety significance because the flanges were determined to be operable. (Section 1R15)
Inspection Report# : 2004013*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Significance: G Jun 30, 2004
Identified By: Self Disclosing
Item Type: NCV NonCited Violation
Work crew was exposed to high radiation levels from the accumulation of contaminants in a vacuum cleaner used to clean debris in the Unit 2 condenser
A self-revealed finding of very low safety significance and an associated Non-Cited Violation (NCV) were identified because a work crew was exposed to high radiation levels from the accumulation of contaminants in a vacuum cleaner used to clean debris in the Unit 2 condenser false bottom.

The finding was more than minor because deficiencies with radiological work planning coupled with radiation protection technician work coverage were associated with the "Program and Process" and "Human Performance" attributes 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 work crew radiation exposures were low relative to regulatory limits, there

was not a substantial potential for a worker overexposure, and because the licensee's ability to assess worker dose was not compromised. To address this issue, the licensee developed guidance for the use of vacuums in highly contaminated areas, workers were counseled, and the work planning problems were captured in the outage lessons learned database.
Inspection Report# : 2004006*(pdf)*

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Last modified : March 09, 2005