Dresden 2
1Q/2014 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Mar 15, 2014
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Adequately Incorporate GE Operating Experience into Vendor Manual
The inspectors identified a finding of very low safety significance and associated non-cited violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the licensee's failure to ensure that operating experience provided via a vendor Service Information Letter (SIL) was properly evaluated and incorporated into the vendor manual contrary to the requirements of procedure
RS–AA–115, "Operating Experience." The failure to properly assess operating experience for alternating current (AC) Motors resulted in a condition where specific deficiencies could go unrealized under the licensee's condition based monitoring program. The licensee initiated action request (AR) 1633528 and 1635766 to document and develop corrective actions for the issue.
The finding was determined to be more than minor because it was associated with the Mitigating Systems Cornerstone attribute of design control and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the failure to adequately evaluate and document the basis for the use or rejection of 9 out of 10 experiences presented in General Electric (GE) SIL 484, Supplement 6, could cause a reduction in reliability for safety related systems that use AC motors. The inspectors determined the finding could be evaluated using the SDP in accordance with IMC 0609, "Significance Determination Process," Appendix A, "The Significance Determination Process (SDP) for Findings At-Power." The finding was screened against the Mitigating Systems Cornerstone, Exhibit 2 of Appendix A, and determined to be of very low safety significance because the answer was "no" to all of the screening questions. This finding has a cross-cutting aspect in the area of Human Performance, Avoid Complacency (H.12), because individuals failed to recognize and plan for the possibility of mistakes, latent issues, and inherent risk, even while expecting successful outcomes.
Inspection Report# : 2014007 *(pdf)*

Significance: G Dec 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Update the UFSAR for Reactor Water Cleanup Design Changes
A Severity Level IV NCV of 10 CFR 50.71(e), "Periodic Update of the Final Safety Analysis Report" (USFAR) and an accompanying Green finding were identified by the inspectors for the licensee's failure to update the Updated Final Safety Analysis Report (UFSAR) for a design modification performed on the Unit 3 reactor water cleanup (RWCU) system. Specifically, the licensee did not update Dresden UFSAR Section 5.4.8, "Reactor Water Cleanup System," to reflect changes made during a design modification installed on Unit 3 in 1997. The design changes included reducing the pipe dimension of RWCU piping outside of the primary containment and eliminating a string of regenerative and non-regenerative heat exchangers. The licensee also identified several high energy line break (HELB) calculations

which did not include the design modification when determining the impact on environmentally qualified components affected by a failure of the RWCU system piping outside of the primary containment structure. Corrective actions included submitting a UFSAR change request to include the appropriate operating characteristics and specifications under the present design. In addition, the licensee reviewed all affected calculations to ensure no non-conservative outcomes resulted based on the design modifications installed.

This finding was determined to be more than minor using IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012 because, if left uncorrected, the performance deficiency could have led to a more significant safety concern. Specifically, failure to update the UFSAR with the actual RWCU system configuration prevented the inspectors from readily concluding that the design change would not require additional calculational analyses for HELB. The inspectors completed a Phase 1 significance determination of this issue using IMC 0609, “Significance Determination Process,” Attachment 0609.04, “Initial Characterization of Findings,” dated July 1, 2012 and IMC 0609, Appendix A, “The Significance Determination Process (SDP) For Findings At-Power,” dated July 1, 2012. The inspectors answered NO to all questions in Exhibit 2, Section A, “Mitigating SSCs and Functionality,” therefore the finding screened as Green (very low safety significance). In accordance with Section 6.1.d.3 of the NRC Enforcement Policy, this violation is categorized as Severity Level IV because the information was not used to make an unacceptable change to the facility or procedures since the design changes did not result in a reduction of the previous margin to the 10 CFR 100 guidelines nor did they challenge the environmental quality rating of safety related components in the vicinity of the RWCU system during a HELB event outside of containment. The inspectors determined that this finding did not reflect present performance because it is a legacy issue with changes made to the facility more than 16 years previously; therefore, there was no cross cutting aspect associated with this finding.
Inspection Report# : 2013004 *(pdf)*

Significance: G Dec 31, 2013
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Inadvertent Lo-Lo Reactor Water Level Indication Received During Maintenance Resulting in Unavailability of the 2/3 Emergency Diesel Generator to Unit 3
A finding of very low safety significance and associated non-cited violation of Technical Specification (TS) 5.4.1, “Procedures”, was self-revealed on November 17, 2013, when the 2/3 Emergency Diesel Generator (EDG) was inoperable to Unit 3 with an Emergency Core Cooling Systems (ECCS) signal present on Unit 2 due to sensing a low reactor water level condition. Specifically, while the licensee performed procedure DIS 0263-07, Revision 20, “Unit 2 ATWS RPT/ARI and ECCS Level Transmitters Channel Calibration Test and EQ Maintenance Inspection”, in conjunction with Anticipated Transient Without a Scram (ATWS) level transmitter replacements, a failure to remove trip relays in addition to performing all transmitter replacements at the same time resulted in an unexpected Lo-Lo reactor water level trip signal, subsequently resulting in the auto initiation of the Unit 2 EDG and the 2/3 EDG, causing the 2/3 EDG to be inoperable to Unit 3. The licensee immediately restored the ATWS trip relay circuitry, clearing the Lo-Lo reactor water level signal. This enabled the EDGs to be returned to a standby condition and, thereby, restored 2/3 EDG availability to Unit 3.

The licensee’s failure to properly implement the steps in the procedure was a performance deficiency that was determined to be more than minor, and thus a finding, because it was associated with the Mitigating Systems Cornerstone attribute of Configuration Control and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was determined to be of very low safety significance. The finding was of very low safety significance because each of the questions provided in IMC 0609, Appendix A, Exhibit 2, “Mitigating Systems Screening Questions,” were answered “no.” The finding has a cross-cutting aspect in the area of human performance, work control, for failing to appropriately coordinate work activities by incorporating actions to address the impact of changes to the work activity on the plant. Specifically, the licensee committed a human performance error by failing

to adequately address the impact of work activity changes on the plant and implement the required prerequisites.
Inspection Report# : 2013005 *(pdf)*

Significance: G May 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Adequate Voltage Not Assured for Emergency Diesel Generator Air Start Solenoid Valve
The inspectors identified a finding of very low safety significance and associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to assure and verify adequate voltage was available at the air start solenoid associated with Unit 2 and Unit 2/3 emergency diesel generators. Specifically, the licensee failed to assure the minimum available voltage at the air start solenoid met the minimum rated voltage value for the solenoid. The licensee entered this finding into their Corrective Action Program and provided test results and calculations to reasonably conclude the currently installed air start solenoid valves would energize at the minimum calculated available voltage.
The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring capability and reliability of systems that respond to initiating events to prevent undesirable consequences. The finding screened as very low safety significance (Green) because the finding was a design deficiency that did not result in a loss of operability or functionality. The inspectors did not identify a cross-cutting aspect associated with this finding because the finding was not representative of current performance.
Inspection Report# : 2013007 *(pdf)*

Significance: G May 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Non-conservative Sizing Calculation for Target Rock Safety Relief Valve Air Accumulators
The inspectors identified a finding of very low safety significance and associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to correctly calculate the minimum air volume and pressure required to actuate the Target Rock Safety/Relief Valve air accumulators. Specifically, when calculating the minimum required air volume in the accumulator, the licensee failed to include the volume of air needed to stroke the air operator from closed to open. The licensee entered this finding into their Corrective Action Program and verified through a preliminary calculation there would be sufficient air in the accumulators for the valves to perform their safety function.
The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring capability and reliability of systems that respond to initiating events to prevent undesirable consequences. The finding screened as very low safety significance (Green) because the finding was a design deficiency that did not result in a loss of operability or functionality. The inspectors did not identify a cross-cutting aspect associated with this finding because the finding was not representative of current performance.

Inspection Report# : 2013007 *(pdf)*

Significance: G May 30, 2013
Identified By: NRC
Item Type: FIN Finding
Failure to Ensure Functionality of High Pressure Coolant Injection Steam Suply Valve During an Anticipated Transient Without Scram
The inspectors identified a finding of very low safety significance concerning motor-operated valve differential

pressure calculation with respect to Dresden's anticipated transient without scram (ATWS) analysis. Specifically, the inspectors identified the design differential pressure used in calculation for the high pressure coolant injection (HPCI) steam supply valve did not address the significantly higher differential pressure that would be applied across the motor-operated valve during an ATWS event. The licensee entered this finding into their Corrective Action Program and verified through a preliminary calculation the HPCI steam supply valve would have sufficient thrust to open against the higher differential pressure to allow HPCI to function during ATWS event.
The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring capability and reliability of systems that respond to initiating events to prevent undesirable consequences. The finding screened as very low safety significance (Green) because the finding was a design deficiency that did not result in a loss of operability or functionality. The inspectors did not identify a cross-cutting aspect associated with this finding because the finding was not representative of current performance.
Inspection Report# : 2013007 *(pdf)*

Significance: G May 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Ensure Isolation Condenser Would Perform Its Safety-Related Function Under Design Conditions
The inspectors identified a finding of very low safety significance and associated NCV of 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for the failure to ensure the isolation condenser would be capable of performing its safety function under design conditions. Specifically, the licensee was unable to justify the assumption the heat transfer rate would remain the same once the isolation condenser tubes began to become exposed. The licensee entered this finding into their Corrective Action Program and instituted a standing order to maintain the shellside water level and temperature in a more restrictive band. In addition, the licensee contracted a vendor to develop a calculation and additional bases for the design assumptions.
The performance deficiency was determined to be more than minor because it was associated with the Mitigating Systems cornerstone attribute of design control and affected the cornerstone objective of ensuring capability and reliability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the inspectors had reasonable doubt the system would have been able to perform its safety function during the initial 20 minutes of operation if called upon under design conditions. The finding screened as very low safety significance (Green) because the finding was a design deficiency that did not result in a loss of operability or functionality. The inspectors did not identify a cross-cutting aspect associated with this finding because the finding was not representative of current performance.
Inspection Report# : 2013007 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Security

Although the Security Cornerstone is included in the Reactor Oversight Process assessment program, the Commission has decided that specific information related to findings and performance indicators pertaining to the Security Cornerstone will not be publicly available to ensure that security information is not provided to a possible adversary. Other than the fact that a finding or performance indicator is Green or Greater-Than-Green, security related information will not be displayed on the public web page. Therefore, the cover letters to security inspection reports may be viewed.

Miscellaneous

Significance: N/A Mar 31, 2009
Identified By: NRC
Item Type: AV Apparent Violation
Apparent Violation for Exelon Plants - 1 (2009 Findings)
For apparent violation #1:
Contrary to the above, on March 31, 2009 Exelon Generation Company, LLC (Exelon) provided incomplete and inaccurate information on the status of its decommissioning funding, as required by 10 CFR 50.75 when it submitted the decommissioning funding status report. Specifically, the March 31, 2009, decommissioning funding status (DFS) report contained inaccurate and incomplete information regarding Exelon's compliance with the requirements of 10 CFR 50.75. The report stated that the amount listed for each of the reactors was determined in accordance with 10 CFR 50.75(b) and the applicable formulas of 10 CFR 50.75(c). However, for each of the 23 reactors, the amount reported was a discounted value that was less than the minimum required amount specified by 10 CFR 50.75(b) and (c). The report was material to the NRC because Exelon under-reported its certified decommissioning amounts by approximately $4 billion, and the NRC staff evaluated the status of Exelon's decommissioning funds based on the inaccurate reports. After identifying the inaccurate information, the NRC required parent company guarantees before the staff could make its determination that there was reasonable assurance that funds will be available for the decommissioning process.
Inspection Report# : 2012012 *(pdf)*
Inspection Report# : 2013202 *(pdf)*

Significance: N/A Mar 31, 2009
Identified By: NRC
Item Type: AV Apparent Violation
Apparent Violation for Exelon Plants - 2 (2009 Findings)
For apparent violation #2:
Contrary to the above, on March 31, 2007, and March 31, 2005, Exelon Generation Company, LLC (Exelon) provided incomplete and inaccurate information on the status of its decommissioning funding, as required by 10 CFR 50.75 when it submitted the decommissioning funding status reports. Specifically, the March 31, 2007, and March 31, 2005, decommissioning funding status (DFS) reports contained inaccurate and incomplete information regarding Exelon's compliance with the requirements of 10 CFR 50.75. The reports stated that the amount listed for each of the reactors was determined in accordance with 10 CFR 50.75(b) and the applicable formulas of 10 CFR 50.75(c). However, in multiple instances, the amount reported was a discounted value that was less than the minimum required amount

specified by 10 CFR 50.75(b) and (c). The reports were material to the NRC because Exelon under-reported its certified decommissioning amounts, and the NRC staff evaluated the status of Exelon's decommissioning funds based on the inaccurate reports. After identifying the inaccurate information, the NRC required parent company guarantees before the staff could make its determination that there was reasonable assurance that funds will be available for the decommissioning process.
Inspection Report# : 2012012 *(pdf)*
Inspection Report# : 2013202 *(pdf)*

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