Dresden 3
4Q/2014 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Dec 31, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Unit 3A Low Pressure Coolant Injection (LPCI) Heat Exchanger Supports Returned to Service with Unacceptable Indications
A finding of very low safety significance and associated non-cited violation (NCV) of 10 CFR 50.55a(g)(4) was identified by the inspectors for the licensee's failure to maintain American Society of Mechanical Engineers (ASME) Code Class 2 components in accordance with ASME Code Section XI requirements. Specifically, the licensee failed to repair or replace the Unit 3A Low Pressure Coolant Injection (LPCI) heat exchanger support welds identified to have unacceptable linear flaws prior to return to service.
The inspectors determined that the licensee's acceptance of linear flaws in the Unit 3A LPCI heat exchanger supports that are determined to be unacceptable for continued service IAW with the ASME Code Section XI, Article IWC–3000 requirements was a performance deficiency (PD). The inspectors determined that the PD was more-than-minor, and a finding, because if the PD remained uncorrected it could lead to a more significant safety concern. Absent NRC identification, the LPCI support welds with unacceptable linear flaws would have remained in service without repair or replacement. This condition could potentially lead to the failure of the Unit 3A LPCI heat exchanger supports, which in turn, could lead to a potential failure of the Unit 3A LPCI heat exchanger. The inspectors reviewed the finding using Attachment 0609.04, "Initial Characterization of Findings," Table 3–Significance Determination Process (SDP) Appendix Router. The inspectors answered 'No' to the question in Section A of Table 3; and therefore, evaluated the finding using the SDP in accordance with IMC 0609, "The Significance Determination Process for At-Power Operations," Appendix A, Exhibit 2, "Mitigating Systems Screening Questions." The inspectors answered "No" to the questions in Exhibit 2 and determined that this finding did not result in a deficiency affecting the structures, systems, and components (LPCI heat exchanger) to maintain its operability or functionality. Therefore, the finding was determined to have very low safety significance. The inspectors determined that this finding has a cross-cutting aspect in the area of Human Performance, training, for the licensee's failure to provide training and ensure knowledge transfer to maintain a knowledgeable, technically competent workforce and instill nuclear safety values. Specifically, the licensee staff dispositioned unacceptable flaws in the LPCI heat exchanger supports for continued service using an engineering evaluation because the licensee staff lacked the specific ASME Code knowledge concerning disposition of the unacceptable indications. Therefore, the licensee failed to return the LPCI heat exchanger supports to within ASME Code acceptable flaw limits via repair or replacement prior to return to service. [H.9]
Inspection Report# : 2014005 *(pdf)*

Significance: W Dec 31, 2014
Identified By: NRC
Item Type: VIO Violation

Failure to Ensure Continued Operability of Unit 3 Electromatic Relief Valve 3-0203-3E Following Implementation of Extended Power Uprate Plant Conditions

An apparent violation (AV) of 10 CFR Part 50, Appendix B, Criterion III, Design Control, having a preliminary low to moderate safety significance, was self-revealed on November 6, 2014, following the discovery that one of the Unit 3 electromatic relief valves (ERVs) would not have performed its intended safety function. Increased vibrations experienced while operating at extended power uprate (EPU) power levels resulted in the degradation of multiple ERV actuator components which rendered the valve inoperable. The inspectors determined that the licensee fully implemented the Unit 3 EPU following a main generator rewind in November 2010,
but failed to verify that the ERV actuator design was suitable for operation at the continuously increased vibration levels experienced at EPU power levels. This finding does not represent an immediate safety concern in that the licensee has replaced all four Unit 3 ERV actuators with a hardened design successfully utilized at the Quad Cities Generating Station, which also experienced significant steam line vibrations post EPU.
The inspectors determined that the licensee's failure to ensure the continued operability of the Unit 3 ERVs following the establishment of EPU plant operating conditions was a performance deficiency warranting a significance evaluation. The inspectors determined that the finding was more than minor in accordance with IMC 0612, "Power Reactor Inspection Reports," Appendix B, "Issue Screening," dated September 7, 2012, because it was associated with the Mitigating Systems Cornerstone attributes of design control and equipment performance and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. A Significance and Enforcement Review Panel (SERP), using IMC 0609, Appendix A, "Significance Determination Process For Findings At-Power," dated June 19, 2012, preliminarily determined the finding to be of low to moderate safety significance (White). The inspectors determined that this finding has a cross-cutting aspect of operating experience in the area of Problem Identification and Resolution, since it involves the failure to implement relevant internal and external operating experience in a timely manner. [P.5]
Inspection Report# : 2014005 *(pdf)*
Inspection Report# : 2015008 *(pdf)*

Significance: G May 23, 2014
Identified By: NRC
Item Type: FIN Finding

Inadequate Applicability Reviews of Configuration Changes for De-Energizing Safety-Related Valves

The inspectors identified a finding of very low safety significance (Green) related to inadequate applicability reviews of operational configuration changes that were implemented as a result of the licensee's Multiple Spurious Operation (MSO) evaluations. Specifically, the licensee failed to follow procedural requirements for determining the applicability for performing 10 CFR 50.59 screening and evaluations for changes made to the facility which de-energized several safety-related motor operated valves (MOVs). The procedural action required that the configuration changes be screened for applicability for a specific 10 CFR Part 50.59 evaluation since aspects of the changes were not completely controlled under the licensee's Fire Protection Program. The licensee entered this issue into their Corrective Action Program to perform a 10 CFR 50.59 screening of changes for each affected system to ensure that all aspects of component design were evaluated.
The performance deficiency was determined to be more than minor because the issue, if left uncorrected, would have become a more significant safety concern. Specifically, by not individually evaluating the scope and applicability of plant configuration changes, the licensee lost the ability to ensure that all aspects of component design were appropriately evaluated against the plant's design and licensing basis. Such changes have the potential to adversely affect design or operation of systems. Failure to evaluate such aspects allows the potential for adverse changes to go undetected. This finding has a cross-cutting aspect in the area of Human Performance because the licensee became complacent during the conduct of performing applicability reviews that were related to the facility's Fire Protection Program, and failed to recognize changes that included elements outside of the scope of fire protection.
Inspection Report# : 2014008 *(pdf)*

Significance: G May 23, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Failure to Seismically Secure Nitrogen Bottles
The inspectors identified a finding of very low safety significance (Green) and associated Non-Cited Violation of Technical Specifications (TS) Section 5.4.1.a, for the licensee's failure to seismically restrain nitrogen bottles located near safety-related motor control centers (MCCs). Specifically, the licensee failed to seismically restrain a cart with two nitrogen bottles located near safety-related MCCs per their procedures for
the handling and storage of compressed gas cylinders and restraint of portable equipment. The licensee entered this issue into their corrective action program, moved the cart with the nitrogen bottles away from the MCCs, and secured it to a column nearby.
The inspectors determined that the finding was more than minor because during a seismic event the bottles could have tipped over and impacted the MCCs, thereby causing a loss of safety-related equipment, such as the Unit 2/3 emergency diesel generator. The finding was determined to be of very low safety significance based on a detailed risk-evaluation. The finding has a cross-cutting aspect in the area of Human performance because maintenance and operations personnel did not coordinate during a change out of nitrogen bottles which resulted in the bottles being left unsecured. (Section 4OA5.2)
Inspection Report# : 2014008 *(pdf)*

Significance: G Mar 15, 2014
Identified By: NRC
Item Type: NCV Non-Cited 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)*

Barrier Integrity

Significance: G Dec 31, 2014
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Maintain Configuration Control in the Unit 3 Containment Pressure Suppression System
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 19, 2014, for the licensee's failure to maintain configuration control in the Unit 3 containment pressure suppression system. Specifically, the licensee failed to maintain the instrument air stop valve to the actuator for Unit 3 torus vent 3–1601–60 open with the reactor in the Start-up and Run Mode following refueling outage D3R23.
The inspectors determined that the licensee's failure to maintain configuration control of the Unit 3 containment pressure suppression system was contrary to procedures for the emergency depressurization of containment as well maintaining TS required atmospheric conditions inside the primary containment with the reactor in Mode 1 and was a performance deficiency. The inspectors determined that the finding was more than minor because it was associated with the barrier integrity cornerstone attribute of configuration control in how containment design parameters are maintained while affecting the cornerstone objective of providing reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The inspectors determined that the finding was of very low safety significance based on answering "No" to all of the Barrier Integrity screening questions in IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," Exhibit 3. The finding has a cross-cutting aspect of conservative bias in the area of Human Performance because the licensee did not implement appropriate robust barriers to prevent bumping of the 3–1601–60SV in response to corrective action 511878–02. Specifically, the licensee previously evaluated 3–1601–60SV and non-conservatively determined that this particular valve did not require a seal to prevent inadvertent operation. [H.14]
Inspection Report# : 2014005 *(pdf)*

Significance: G Mar 31, 2014
Identified By: Self-Revealing
Item Type: NCV Non-Cited Violation
Failure to Maintain Secondary Containment Integrity During Outage Demobilization Activities
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 28, 2013, when the integrity of the secondary containment for Unit 3 was not maintained when plant personnel bypassed interlock features, designed for preventing both doors of a secondary containment interlock from being simultaneously open, in order to remove equipment from a work area. Specifically, during demobilization activities from Unit 2 refueling outage D2R23, a radiation protection technician (RPT) and station laborers were dispatched to the Unit 2 main steam tunnel area, known as the Unit 2 X-Area, to remove lead blanket shielding which had been used to support maintenance work during the outage. Upon arriving at the Unit 2 X-Area the RPT and laborers opened and held open the outer containment door and attempted to simultaneously open the inner containment door. The installed door interlock prevented the RPT from unlocking the inner door. Not understanding the significance of this, the RPT pressed the emergency open push button which is normally reserved for personnel emergencies and bypassed the secondary containment interlock, opening both doors simultaneously. With both doors open, the team began removing the lead shielding blankets from the X-Area to the adjacent turbine building. Main control room operators, receiving the X-Area interlock door trouble alarm, dispatched an Equipment Operator (EO) to investigate. Upon arriving at the X-Area, the EO directed the doors to be shut restoring secondary containment integrity to Unit 3.
The simultaneous opening of the Unit 2 X-Area secondary containment interlock doors for 15 minutes was contrary to step 3.6 of licensee procedure CC-AA-201, "Plant Barrier Control Program," and was a performance deficiency warranting further review. The performance deficiency was determined to be more than minor, and thus a finding, because it was associated with the Barrier Integrity Cornerstone Attribute of Configuration Control and adversely affected the cornerstone objective to provide reasonable assurance that physical design barriers protect the public from radionuclide releases caused by accidents or events. The finding was determined to be of very low safety significance

because the inspectors answered “yes” to question C.1 in IMC 0609, Appendix A, Exhibit 3, “Barrier Integrity Screening Questions.” The finding has a
cross-cutting aspect of Challenge the Unknown (H.11), in the area of human performance, for failing to appropriately challenge an unexpected condition when the RPT and laborers determined that the containment interlock doors were closed with the interlock in operation. Specifically, the individuals did not request further guidance from their supervision or the operations watch team with regards to the status of secondary containment. This information would have revealed to them that their task of demobilizing lead shielding in the Unit 2 X-Area would have to be completed while maintaining the integrity of the secondary containment interlock barrier.
See LER 249/2013-001-00
Inspection Report# : 2014002 *(pdf)*

Emergency Preparedness

Significance: G Sep 30, 2014
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Evacuation Time Estimate Submittals
The NRC identified a NCV of 10 CFR 50.54(q)(2) associated with 10 CFR 50.47(b)(10) and 10 CFR Part 50, Appendix E, Section IV.4, for failing to maintain the effectiveness of the Dresden Nuclear Power Station Emergency Plan as a result of failing to provide the station evacuation time estimate (ETE) to the responsible offsite response organizations (OROs) by the required date.
Exelon submitted the Dresden Nuclear Power Station ETE to the NRC on
December 12, 2012, prior to the required due date of December 22, 2012. The NRC completeness review found the ETEs to be incomplete due to Exelon fleet common and site-specific deficiencies, thereby preventing Exelon from providing the ETEs to responsible OROs and from updating site-specific protective action strategies as necessary. The NRC discussed its concerns regarding the completeness of the ETE, in a teleconference with Exelon on June 10, 2013, and on September 5, 2013, Exelon resubmitted the ETEs for its sites. The NRC again found the ETEs to be incomplete. The issue is a performance deficiency because it involves a failure to comply with a regulation that was under Exelon’s control to identify and prevent. The finding is more than minor because it is associated with the emergency preparedness cornerstone attribute of procedure quality and because it adversely affected the cornerstone objective of ensuring that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The finding is of very low safety significance because it was a failure to comply with a non-risk significant portion of 10 CFR 50.47(b)(10). The licensee had entered this issue into their corrective action program (CAP) and re-submitted a new revision of the Dresden Nuclear Power Station ETE to the NRC on May 2, 2014, which was found to be complete by the NRC. The cause of the finding is related to the cross-cutting element of Human Performance, Documentation. [IMC 0310, H.7]
Inspection Report# : 2014004 *(pdf)*

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

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