U.S.NRC
United States Nuclear Regulatory Commission
Protecting People and the Environment

Calvert Cliffs 1 – Quarterly Plant Inspection Findings

2Q/2017 – Plant Inspection Findings

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Initiating Events

Mitigating Systems

Barrier Integrity

Significance: G Dec 31, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Inadequate Inspection of Caulking, Seals, and Expansion Barriers in the Auxiliary Building
Green. The inspectors identified a Green NCV of Title 10 of the Code of Federal Regulations (10 CFR), Appendix B, Criterion XVI, Corrective Action, for Exelon's failure to identify conditions adverse to quality at CCNPP. Specifically, several safety related auxiliary building caulking, seals, expansion joints, and penetration barriers were found by the inspectors or revealed themselves by water intrusion events to be degraded. The inspectors determined that Exelon's failure to identify degradation of several auxiliary building caulking, seals, and expansion joints was a performance deficiency that was reasonably within its ability to foresee and correct and should have been prevented. Exelon's immediate corrective actions included performing operability determinations on degraded barriers, and repair of the degraded barriers. Exelon entered these issues into its corrective action program (CAP) as action request (AR) 02715188, AR 02715199, AR 02716543, AR 02725901, and AR 02564655.

The inspectors reviewed IMC 0612, Appendix B, "Issue Screening," issued on May 6, 2016, and determined the issue is more than minor because it adversely affected the Human Performance attribute, of the Auxiliary Building Area, of 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 inspectors also reviewed IMC 0612, Appendix E, "Examples of Minor Issues," and found it was sufficiently similar to Example 3.k, in that significant programmatic deficiencies were identified that could have led to worse outcomes. Specifically, several inspection programs designed to identify degraded barriers, caulking, seals, and expansion joints in safety related auxiliary building barriers, had not been performed, or had been performed inadequately. In accordance with IMC 0609, Attachment 4, "Initial Characterization of Findings," issued on October 7, 2016, and IMC 0609, Appendix A, "The Significance

Determination Process for Findings at Power" issued on June 19, 2012, the inspectors determined that this finding is of very low safety significance (Green) since, the only safety related degradation represented by the finding is of the radiological barrier function provided for the auxiliary building. The inspectors determined that the cause of the finding has a cross-cutting aspect in the area of Human Performance, Procedure Adherence, because Exelon did not complete the baseline inspection required by AMBD-0026 within the 10 years preceding entry of Units 1 and 2 into

their respective periods of extended operation as specified in CNG-CM-6.01. Additionally, inspections conducted under AMBD-0052, and 0-013-49-O-18M were inadequate in that they failed to identify degradation of the barriers as described above. [H.8] (Section 1R15)

Inspection Report# : 2016004 *(pdf)*

Significance: G Sep 30, 2016
Identified By: NRC
Item Type: NCV Non-Cited Violation
Deficient Design Control of Air Pressure Available for Unit 1 Component Cooling Water Air Operated Valves
Green. The inspectors identified a Green non-cited violation (NCV) of Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Appendix B, Criterion III, "Design Control," for Exelon's failure to establish measures to assure that the design basis was correctly translated into specifications affecting safety related functions of air operated valves (AOV). Specifically, when implementing a design change, Exelon failed to verify the air pressure supplied to AOVs in the component cooling (CC) water system was adequate to ensure that the valves would have performed their safety function to close during certain specific accident conditions. The inspectors determined that Exelon's failure to verify ECP-15-000213 ensured that air pressure supplied to safety related Unit 1 CC heat exchanger (HX) outlet AOVs was sufficient to support their safety function of closing during a design basis accident (DBA) was a performance deficiency that was reasonably within its ability to foresee and correct and should have been prevented. Exelon's immediate corrective actions included conducting an engineering evaluation that demonstrated the operability of the CC system in the degraded condition and increasing the air pressure supplied to the CC HX outlet valves to ensure the valves are capable of fully closing during a DBA. Exelon entered this issue into its corrective action program (CAP) as action request (AR) 02680281.

The inspectors reviewed IMC 0612, Appendix B, "Issue Screening," and determined the issue is more than minor because it adversely affected the design control attribute of 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 inspectors also reviewed IMC 0612, Appendix E, "Examples of Minor Issues," and found it was sufficiently similar to Example 3.j, in that the design analysis deficiency resulted in a condition where reasonable doubt existed regarding the operability of the Unit 1 CC HX outlet valves. In accordance with IMC 0609, Attachment 4, "Initial Characterization of Findings," issued on June 19, 2012, and IMC 0609, Appendix A, "The Significance Determination Process for Findings at Power," issued on June 19, 2012, the inspectors determined that this finding is of very low safety significance (Green) since, the finding did not involve an actual open pathway in the physical integrity of reactor containment. The inspectors determined that the cause of the finding has a cross-cutting aspect in the area of Human Performance, Documentation, because Exelon's AOV program, as implemented by ER AA 410, "Air Operated Valve Implementing Program," Revision 2, did not require that complete, accurate, and up-to-date documentation on the CC HX outlet valves' design be maintained. [H.7] (Section 1R15)

Inspection Report# : 2016003 *(pdf)*

Emergency Preparedness
Occupational Radiation Safety

Public Radiation Safety

Security

The security cornerstone is an important component of the ROP, which includes various security inspection activities the NRC uses to verify licensee compliance with Commission regulations and thus ensure public health and safety. The Commission determined in the staff requirements memorandum (SRM) for SECY-04-0191, "Withholding Sensitive Unclassified Information Concerning Nuclear Power Reactors from Public Disclosure," dated November 9, 2004, that specific information related to findings and performance indicators associated with the security cornerstone will not be publicly available to ensure that security-related information is not provided to a possible adversary. Security inspection report cover letters will be available on the NRC Web site; however, security-related information on the details of inspection finding(s) will not be displayed.

Miscellaneous

Current data as of : September 05, 2017

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