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Three Mile Island 1 – Quarterly Plant Inspection Findings

2Q/2017 – Plant Inspection Findings

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Initiating Events

Mitigating Systems

Significance: G Sep 30, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

Emergency Diesel Generator Internal Flooding Risk Not Evaluated

Green. The inspectors identified an NCV of Title 10 Code of Federal Regulations (CFR) 50, Appendix B, Criterion III, "Design Control," in that Exelon did not ensure the availability of the emergency diesel generator (EDG) following a seismic event. The inspectors reviewed the TMI licensing basis for internal flooding, associated evaluations and conditions reports, and walked down safety-related structures system and components (SSCs). During this review the inspectors determined that non-seismic piping failures in the EDG room were not properly evaluated. Specifically, the inspectors determined that pressurized fire water pipes in both EDG rooms were not classified as safety-related or seismically qualified. The inspectors reviewed Exelon's evaluation of the potential failure of the pipe, as assumed in the TMI design and licensing basis, and determined that operator actions were credited to mitigate the pipe failure in order to prevent water from affecting the operation of the EDGs. The inspectors determined that these operator actions could not be performed prior to water from the pipe break impacting the operation of the EDGs. Following identification of the issue, Exelon entered this issue into their corrective action program and performed an analysis on the structural loading on the fire water piping during a safe shutdown earthquake and concluded that the piping would not break during the design basis event and, therefore, the EDGs remained operable. The inspectors reviewed the analysis and found it reasonable.

The inspectors determined the failure to adequately evaluate the effects of a pipe failure in the EDG room in accordance with the design and licensing basis was a performance deficiency. The performance deficiency is considered more than minor because it is associated with the Protection Against External Factors attribute of the Mitigating Systems cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability,

and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Additionally, the performance deficiency is considered more than minor in accordance with Manual Chapter 0612, Appendix E - Question 3K, in that there was a reasonable doubt of operability for the EDGs requiring engineering calculations and analysis to resolve.

In accordance with IMC 0609.04, "Initial Characterization of Findings," and Exhibit 2 of IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," the inspectors determined the finding to be of very low safety significance (Green) because the finding was determined to be a design or qualification deficiency that did not result in an inoperability.

No cross-cutting attribute is assigned to this finding because the performance deficiency was not indicative of Exelon's current performance. Specifically, this issue was last identified and reviewed by Exelon in issue report 1201424 in 2010. (Section 4OA2.2)

Inspection Report# : 2016003 (*pdf*)

Barrier Integrity
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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