

Indian Point 3 2Q/2016 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G Sep 30, 2015

Identified By: NRC

Item Type: FIN Finding

Blocked Drains in the 480 Volt Switchgear Room

The inspectors identified a Green finding (FIN) because Entergy allowed the Unit 3 480 volt switchgear room floor drains to become blocked such that they could not mitigate an internal flood postulated in Action and Condition Tracking Form 95-14218. Specifically, if both service water (SW) relief valves in the 480 volt switchgear room lifted, their flow rate would be greater than the as-found drain flow rate. This finding does not involve enforcement action because no violation of regulatory requirement was identified.

This finding was more than minor because it was associated with the protection against external factors attribute of the Mitigating Systems cornerstone, and adversely affected the cornerstone objective to ensure the capability of systems to respond to initiating events to prevent undesirable consequences. Specifically, the Unit 3 480 volt switchgear room floor drains were not capable of mitigating an internal flood hazard to prevent damage to the 480 volt switchgear, potentially resulting in core damage. In accordance with IMC 0609.04, "Initial Characterization of Findings," and Exhibit 4, "External Events Screening Questions," of IMC 0609, Appendix A, "The Significance Determination Process for Findings At-Power," issued June 19, 2012, the inspectors determined this finding required a detailed risk assessment. A detailed risk assessment was conducted using the Unit 3 SDP External Event Notebook, which determined that there was a change in core damage frequency of low E-8 per reactor year (an increase in 1 in 100 million reactor years). Therefore, this performance deficiency was of very low safety significance (Green). The inspectors determined the finding does not have a cross-cutting aspect. Although Entergy did not thoroughly evaluate the Unit 2 blocked floor drain issue in 2011 to ensure the resolution addressed extent of condition, Entergy has improved their extent of condition evaluation guidance since 2012.

Inspection Report# : [2015003](#) (*pdf*)

Significance: G Sep 20, 2015

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Account for Elevated Battery Room Temperature Effects on Battery Service Life

The team identified a finding of very low safety significance (Green) involving a non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI, "Test Control," because Entergy did not verify the adequacy of the safety-related battery test program. Specifically, Entergy did not adequately account for the effects of elevated temperature in the immediate vicinity of the No. 33 125 volts, direct current (Vdc) battery to ensure accurate and up-to-date determination of the battery's expected service life, in

accordance with the vendor manual. After identification, Entergy entered this issue into the corrective action program and contacted the battery vendor for additional guidance.

The performance deficiency was determined to be more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone and adversely affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The team evaluated the finding in accordance with IMC 0609, Appendix A, The Significance Determination Process for Findings at Power, Exhibit 2 – Mitigating Systems Screening Questions. The finding was determined to be of very low safety significance because it was a design deficiency confirmed not to result in a loss of operability.

This finding was not assigned a cross-cutting aspect because it was a historical design issue not indicative of current performance. Specifically, the associated vendor technical manual guidance was not changed within the last 3 years and there was no recent operating experience that was directly applicable to the performance deficiency.

Inspection Report# : [2015007](#) (*pdf*)

Significance:  Jul 20, 2012

Identified By: NRC

Item Type: VIO Violation

Failure to Protect Safe Shutdown Equipment from the Effects of Fire

The inspectors identified a finding of very low safety significance (Green), involving a cited violation of Indian Point Unit 3 Operating License Condition 2.H to implement and maintain all aspects of the approved fire protection program. Specifically, ENO failed to protect required post-fire safe shutdown components and cabling to ensure one of the redundant trains of equipment remained free from fire damage as required by 10 CFR Part 50, Appendix R, Section III.G.2. In lieu of protecting a redundant safe shutdown train, ENO utilized unapproved operator manual actions to mitigate component malfunctions or spurious operations caused by postulated single fire-induced circuit faults. ENO submitted an exemption request (M1090760993) on March 6, 2009, in which it sought exemption from requirements of Paragraph III.G.2, to permit the use of OMAs upon which it had been relying for safe-shutdown in a number of fire areas. However, several OMAs within the exemption request were denied because ENO failed to demonstrate that the OMAs were feasible and reliable, or to appropriately evaluate fire protection defense-in-depth. ENO's performance deficiency delayed achieving full compliance with fire protection regulations and adversely affected post-fire safe shutdown. ENO has entered this issue into the corrective program for resolution. The inspectors found the manual actions in addition to roving fire watches in all affected areas to be reasonable interim compensatory measures pending final resolution by ENO.

ENO's failure to protect components credited for post-fire safe shutdown from fire damage caused by single spurious actuation is considered a performance deficiency. The performance deficiency was more than minor because it affected the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to an external event to prevent undesirable consequences in the event of a fire. Specifically, the use of operator manual actions during postfire safe shutdown is not as reliable as normal systems operation which could be utilized had the requirements of 10 CFR 50, Appendix R, Section III.G.2 been met and, therefore, prevented fire damage to credited components and/or cables. The inspectors used IMC 0609, Appendix F, Fire Protection Significance Determination Process, Phase 1 and a Senior Reactor Analyst conducted a Phase 3 evaluation, to determine that this finding was of very low safety significance (Green). This finding does not have a cross cutting aspect because the performance deficiency occurred greater than three years ago when the exemption request was submitted to the NRC on March 6, 2009, and is not indicative of current licensee performance.

Inspection Report# : [2012008](#) (pdf)

Barrier Integrity

Significance:  Mar 31, 2016

Identified By: NRC

Item Type: NCV Non-Cited Violation

Failure to Adequately Implement Risk Management Actions for the Containment Key Safety Function

The inspectors identified an NCV of Title 10 of the Code of Federal Regulations (10 CFR) 50.65(a)(4) because Entergy did not effectively manage the risk associated with refueling maintenance activities. Specifically, Entergy did not demonstrate they could implement their planned risk management action to restore the containment key safety function within the time-to-boil using the equipment hatch closure plug. Entergy wrote CR-IP2-2016-01503 and CR-IP2-2016-01883 to address this issue.

This performance deficiency is more than minor because it impacted the barrier performance attribute of the Barrier Integrity cornerstone and affected the objective to provide reasonable assurance that containment protects the public from radionuclide releases caused by accidents or events. Specifically, Entergy did not demonstrate that they could install the hatch plug within the time-to-boil and that the plug would seal the equipment hatch opening, which affected the reliability of containment isolation in response to a loss of shutdown cooling or other event inside containment. The inspectors determined the finding could be evaluated using Attachment 0609.04, "Initial Characterization of Findings." Because the finding degraded the ability to close or isolate the containment, it required review using IMC 0609, Appendix H, "Containment Integrity Significance Determination Process." Since containment status was not intact and the finding occurred when decay heat was relatively high, it required a phase two analysis. Since the leakage from containment to the environment was less than 100 percent containment volume per day, the finding screens as very low safety significance (Green). A subsequent demonstration showed that the hatch plug provided an adequate seal with the containment hatch opening. The inspectors concluded this finding had a cross-cutting aspect in the area of Human Performance, Documentation, because Entergy did not maintain complete, accurate, and up to date documentation related to the use of the hatch plug. Specifically, they tested the seal integrity without using a work order (WO), and made pen-and-ink changes to the procedure without processing a procedure change form.

Inspection Report# : [2016001](#) (pdf)

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

Last modified : August 29, 2016