Pilgrim 1
3Q/2013 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Procedures Results in Loss of Shutdown Cooling
Green. A self-revealing NCV of Technical Specification (TS) 5.4.1, "Procedures," was identified for operators not implementing procedures to supply safety-related alternate electrical power to shutdown cooling valves during shutdown cooling operation. Specifically, because operators did not perform all applicable steps in a procedure, a loss of shutdown cooling resulted when operators were shifting power supplies for the 'B' train shutdown cooling suction and discharge valves on May 2, 2013. Corrective actions included restoring shutdown cooling following a prompt investigation of the event. Entergy has captured this event in their corrective action program (CAP) as CR-PNP-2013-3457.

The performance deficiency is more than minor because it affects the objective of the Initiating Events cornerstone to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The unavailability of shutdown cooling for five hours challenged the safety function of decay heat removal (DHR) supplied by the residual heat removal (RHR) system. A review of IMC 0612, Appendix E, "Examples of Minor Issues," found no more than minor examples that applied. The inspectors evaluated the finding using IMC 0609, Attachment 4, "Phase 1 – Initial Screening and Characterization of Findings." The inspectors determined that the finding required further review using IMC 0609, Appendix G, "Shutdown Operations Significance Determination Process," because the issue affected the safety of the reactor during a refueling outage. The inspectors determined that this finding was of very low safety significance (Green), using IMC 0609, Appendix G, Checklist 7, "BWR Refueling Operation with Reactor Coolant System (RCS) Level >23'." This determination did not require a further phase 2 or phase 3 analysis in that it did not increase the likelihood of a loss of RCS inventory; did not result in the loss of RCS level instrumentation; did not degrade Entergy's ability to terminate a leak path or add RCS inventory; and did not degrade Entergy's ability to recover DHR once it was lost. In addition, a loss of thermal margin did not occur since the change in RCS temperature resulted in less than 20 percent of the temperature margin to boil. The inspectors determined that this finding had a cross-cutting aspect in the Human Performance area, Work Practices component, because personnel did not follow procedures [H.4(b)]. (Section 1R20)

Inspection Report# : 2013003 *(pdf)*

Mitigating Systems

Significance: G Sep 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Complete a Design Control Review for the SBO Fuel Oil Transfer System in a Timely Manner
Green. The inspectors identified an NCV of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action,"

because Entergy did not complete a design control review for the station blackout (SBO) fuel oil transfer system in a timely manner. Entergy extended the corrective action due date out to greater than a year from the discovery of the original condition. Entergy has increased the priority of this design review and captured this issue in condition report CR-PNP-2013-6906.

The performance deficiency was determined to be more than minor because it is associated with the design control attribute of the Mitigating Systems cornerstone, and adversely affected the cornerstone objective to ensure the capability of systems that respond to initiating events to prevent undesirable consequences. The failure to complete a timely design review of a credited support system for the onsite power safety function further extends the vulnerability of the safety function if the design review determines the system is inadequate. The inspectors used IMC 0609.04, “Phase 1 – Initial Screening and Characterization of Findings,” and IMC 0609, Appendix A, Exhibit 2, “Mitigating Systems Screening.” The finding was determined to be of very low safety significance (Green) because the finding was a design deficiency that did not result in the loss of system safety function or a loss of safety function of a single train for greater than its Technical Specification allowed outage time. The finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because Entergy did not take appropriate corrective actions to address a safety issue in a timely manner, commensurate with its safety significance. [P.1(d)]. (Section 4OA2)

Inspection Report# : 2013004 *(pdf)*

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Verify the Adequacy of the Design of the SBO Fuel Oil Transfer System
Green. The inspectors identified a finding of very low safety significance (Green) involving a non-cited violation of 10 CFR Part 50, Appendix B, Criterion III, “Design Control,” because Entergy did not implement design control measures commensurate with those applied to the original design when a system modification was made to the Emergency Diesel Generators’ (EDG) fuel oil transfer system. Specifically, Entergy did not implement the design change or modification process when a Station Blackout Diesel Generator fuel oil transfer system was put in place in 1998 to meet the EDG support function of transferring sufficient fuel to meet the mission time of the EDG safety function. As a result, the fuel oil suction hose used was not in accordance with the design. Entergy replaced the degraded and non conforming hose, and documented this issue in their corrective action program (CR-PNP-2012-3428).

The performance deficiency was determined to be more than minor because it is associated with the Design Control attribute of the Mitigating Systems cornerstone, and adversely affected the cornerstone’s objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences. The finding was determined to be of very low safety significance (Green) because the finding was a design process deficiency and did not represent a loss of system and/or function or the loss of a single train for greater than its TS outage time. The finding does not have a cross-cutting aspect since the failure to implement the design change verification process is not indicative of current licensee performance. Entergy’s current design change procedures require design reviews of this type of in-field modification. (Section 1R18)
Inspection Report# : 2012005 *(pdf)*

Significance: G Dec 31, 2012

Identified By: NRC
Item Type: FIN Finding
Inadequate Corrective Actions for Station Blackout Battery
Green. The inspectors identified a finding of very low safety significance (Green) because Entergy did not complete Shutdown Transformer Bus (A8) battery discharge testing within the required timeframe as required by procedure EN-LI-102, Corrective Action Process. Specifically, although Entergy identified in April 2011 that required battery testing had not been completed, as of this inspection, the testing had still not been completed. Entergy entered the issue into their corrective action program (CR-PNP-2012-5071).

This finding was more than minor because it was associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the capability of systems that respond to initiating events to prevent undesirable consequences. The finding was determined to be of very low safety significance (Green) because it was not a design or qualification deficiency, did not represent a loss of system safety function, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program component, because Entergy did not take appropriate corrective actions to address a safety issue in a timely manner. Specifically, Entergy did not perform vendor required discharge testing in a timeframe consistent with the safety significance of the equipment. [P.1(d)] (Section 4OA2)
Inspection Report# : 2012005 *(pdf)*

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: FIN Finding
Inadequate Design Control for Station Blackout Battery
Green. The inspectors identified a finding of very low safety significance (Green) because Entergy did not verify the adequacy of the design of the Station Blackout (SBO) battery as required by procedure EN-DC-126, Engineering Calculation Process. Specifically, Entergy used an incorrect minimum voltage for the SBO battery resulting in the sizing calculation significantly overstating the available design margin. Entergy entered the issue into their corrective action program (CR-PNP-2012-5076).

This finding was more than minor because it was associated with the design control attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the reliability of systems that respond to initiating events to prevent undesirable consequences. The finding was determined to be of very low safety significance (Green) because it was not a design or qualification deficiency, did not represent a loss of system safety function, and did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event. This finding has a cross-cutting aspect in the area of Human Performance, Resources Component, because Entergy did not ensure that accurate design documentation was available. Specifically, Entergy used the incorrect minimum voltage for the SBO battery, resulting in nonconservative conclusions in the battery sizing calculation. [H.2(c)] (Section 4OA2)
Inspection Report# : 2012005 *(pdf)*

Significance: G Dec 31, 2012
Identified By: NRC
Item Type: NCV NonCited Violation

Failure to Evaluate Extent of Condition for B-15 Safety-Related Bus After Identifying an Overload Condition on the B-14 Safety-Related Bus
Green. The inspectors identified a finding of very low safety significance (Green) involving a non-cited violation (NCV) of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," because Entergy did not identify an overload condition on the B-15 bus after a similar overload condition was known to exist on the opposite train B-14 bus. Entergy specified an extent of condition review to be performed as a corrective action but was not successful in completing this review to identify the similar vulnerability to B-15. Entergy's corrective actions included immediately reducing loading on the B-15 bus and revising procedures to prohibit overloading the B-15 bus. Entergy has captured these issues in condition reports CR-PNP-2012-2015, CRPNP-2012-4185 and CR-PNP-2012-4884.

The performance deficiency was determined to be more than minor because it is associated with the Equipment Performance attribute of the Mitigating Systems cornerstone, and adversely affected the cornerstone's objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences. During certain accident scenarios, equipment electrically powered from the B-15 bus (Reactor Building Closed Cooling Water and Salt Service Water) would have been unavailable to mitigate the consequences of an event. The inspectors used IMC 0609.04, "Phase 1 – Initial Screening and Characterization of Findings" and Inspection Manual Chapter (IMC) 0609 Appendix A, Exhibit 2, "Mitigating Systems Screening." In accordance with Exhibit 2 of IMC 0609, this performance deficiency required a detailed risk analysis since the issue resulted in an actual loss of function of at least a single train for greater than its Technical Specifications (TS) allowed outage time. The Senior Risk Analyst performed a detailed risk evaluation and determined the finding to be of very low safety significance (Green) with a change in core damage frequency of 1.1E-7. This finding has a cross-cutting aspect in the Problem Identification and Resolution cross-cutting area, Corrective Action Program component, because Entergy did not thoroughly evaluate the problem with B-14 such that the resolution addressed the extent of condition for the same vulnerability to B-15. [P.1(c)] (Section 1R15)
Inspection Report# : 2012005 *(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

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