FitzPatrick
2Q/2013 Plant Inspection Findings

Initiating Events

Significance: G Dec 31, 2012
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure to Install Reserve Station Service Transformers in Accordance with Procedure
The inspectors identified a self-revealing, Green non-cited violation (NCV) of Technical Specification (TS) 5.4, "Procedures," because FitzPatrick personnel did not perform installation of replacement reserve station service transformers (RSSTs) 71T-2 and 71T-3 in accordance with written procedures. Specifically, station personnel did not remove the shorting bars from the current transformer (CT) circuits, as specified by the work instructions, which impacted trip set points for the transformer differential current protection relays. As a result, the 71T-3 differential protection circuitry actuated after the start of a major electrical load when it was not required, which caused a transformer lockout and loss of offsite power. As immediate corrective action, operators reestablished station power from the normal station service transformer via the 345 kilovolt (KV) back feed and secured the emergency diesel generators (EDGs). The issue was entered into the corrective action program (CAP) as condition report (CR)-JAF-2012-06866.
The finding was more than minor because it affected the equipment performance attribute of the Initiating Events cornerstone objective to limit the likelihood of events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors evaluated the finding in accordance with IMC 0609, Appendix G, "Shutdown Operations Significance Determination Process." Per Attachment 1, "Shutdown Operations Significance Determination Process Phase 1 Operational Checklists for both PWRs and BWRs," Checklist 7, "BWR Refueling Operation with RCS Level > 23'," the issue constituted a finding because, after the event, FitzPatrick did not have one operable qualified circuit between the offsite transmission network and the onsite 1E AC electrical power distribution subsystems. Also, per Checklist 7, this was not a finding requiring phase 2 or phase 3 analysis, nor did it constitute a loss of control event per Appendix G, Table 1. Therefore, the finding screened as very low safety significance (Green).
This finding had a cross-cutting aspect in the area of Human Performance, Resources, because Entergy staff did not provide an accurate and up-to-date work package for installation of the RSSTs, in that the package did not include a drawing of the CT shorting terminal configured with the shorting bar removed, nor did they ensure that the work package was appropriately updated with clarifying information after workers questioned the existing instructions [H.2(c)].

Inspection Report# : 2012005 *(pdf)*

Mitigating Systems

Significance: G Jun 30, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Technical Specification Actions for Inoperable Control Rod Not Performed Within the Technical Specification Allowed Completion
The inspectors identified a non-cited violation of technical specification (TS) 3.1.3, "Control Rod Operability," because Entergy operators did not take the required actions within the allowed completion time in response to indication that the scram capability of a control rod was indeterminate. Specifically, when available information concerning the scram solenoid pilot valves (SSPVs) required control rod 30-11 to be declared inoperable, operators did not declare the control rod inoperable, did not fully insert the control rod within 3 hours, and did not disarm the associated control rod drive within 4 hours as required by TS 3.1.3.C. Entergy's corrective actions included fully inserting and electrically disarming control rod 30-11, replacing the SSPVs, revising the instructions to operators, briefing operators on this issue, and initiating a condition report.

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 to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, operators did not fully insert and electrically disarm control rod 30-11 within the TS allowed completion time when the scram capability of the control rod was indeterminate and, therefore, required to be declared inoperable. In accordance with Inspection Manual Chapter 0609, Appendix A, "The Significance Determination Process for Findings At Power," the finding was of very low safety significance (Green) because it did not affect multiple automatic reactor shutdown functions, did not involve an unintentional positive reactivity addition, and did not result in inability to control changes in reactivity during crew operations. The finding had a cross-cutting aspect in the area of Human Performance, Decision Making, because, given industry operating experience that cessation of the SSPV buzzing sound was a possible indication of a condition that would prevent the SSPV from performing its safety function. Entergy staff did not communicate to on-shift operations department personnel the need to promptly declare control rod 30-11 inoperable if this condition were to occur [H.1(c)].

Inspection Report# : 2013003 *(pdf)*

Significance: G Jun 30, 2013
Identified By: NRC
Item Type: FIN Finding
Inadequate Corrective Action for Decay Heat Removal System Degradation Results in Loss of Decay Heat Removal During Refueling Outage 20
A self-revealing finding (FIN) was identified for a loss of decay heat removal (DHR) during refueling outage 20 (R20) that was the result of inadequately remediated DHR system degradation. Specifically, prior to using the system during R20, Entergy did not clean scale buildup in the DHR secondary cooling loop heat exchangers (HXs) causing low secondary system pressure, and Entergy did not address the resultant reduction in margin to the primary cooling loop pump automatic shutdown on low primary-to-secondary differential pressure. As a result, a spurious automatic DHR system shutdown occurred while it was functioning as the alternate method of DHR in place of residual heat removal (RHR) shutdown cooling. Entergy's corrective actions included restarting DHR and initiating condition report CR-JAF-2012-06934. Entergy also initiated actions to evaluate corrective measures such as modifying the differential pressure trip, adding secondary loop water chemistry treatment, and cleaning of the HXs.

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 to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, there was an unplanned shutdown of the DHR system for about 50 minutes when it was providing the

shutdown cooling function. The inspectors determined the significance of the finding using Inspection Manual Chapter 0609, Appendix G, "Shutdown Operations Significance Determination Process." Per Attachment 1, "Shutdown Operations Significance Determination Process Phase 1 Operational Checklists for both PWRs [pressurized water reactors] and BWRs [boiling water reactors]," Checklist 7, "BWR Refueling Operation with RCS Level > 23'," this finding impacted checklist item I.C because at the time of the event, the DHR system was functioning as the alternate method of DHR in place of RHR shutdown cooling. The finding was determined to be of very low safety significance (Green) because the finding did not require a quantitative assessment as described in Checklist 7 of Attachment 1 to Appendix G, because checklist item I.C. is not listed as requiring phase 2 or 3 analysis, and the finding did not constitute a loss of control event per Appendix G, Table 1. The inspectors determined that the finding had a cross-cutting aspect in the Problem Identification and Resolution area, Corrective Action Program component, because Entergy staff did not take appropriate corrective actions to address the adverse trend in DHR system performance [P.1(d)].
Inspection Report# : 2013003 *(pdf)*

Significance: N/A Mar 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failiure to Submit a Licensee Event Report for a Condition That Could Have Prevented Fulfillment of the High-Pressure Coolant Injection System Safety Function
The inspectors identified a Severity Level IV non-cited violation of Title 10 of the Code of Federal Regulations (10 CFR) 50.73, "Licensee Event Report (LER) System," because failure of an isolation valve in the high-pressure coolant injection (HPCI) system torus suction line to fully open on demand caused the automatic suction swap function to be inoperable, but this condition was not reported to the NRC as a condition that could have prevented fulfillment of a safety function per 10 CFR 50.73(a)(v) within 60 days of when it should reasonably have been discovered. Specifically, while this condition existed, an automatic suction swap from the condensate storage tanks (CSTs) to the torus would not have gone to completion, but rather would have stopped with both suction paths open. Depending on whether or not HPCI was running at the time, this would either result in air entrainment in the HPCI pump suction, causing a loss of HPCI, or an increase in suppression pool level due to drainage from the CSTs. However, this condition was not reported to the NRC as a condition that could have prevented fulfillment of a safety function per 10 CFR 50.73(a)(v) within 60 days of when it should reasonably have been discovered. This issue was entered into the corrective action program as condition report (CR)-JAF-2013-01768.

The inspectors determined that the failure to submit an LER within 60 days in accordance with 10 CFR 50.73 was a performance deficiency that was reasonably within Entergy's ability to foresee and correct. Because the issue impacted the regulatory process in that a safety system functional failure was not reported to the NRC within the required timeframe, thereby delaying the NRC's opportunity to review the matter, the inspectors evaluated this performance deficiency in accordance with the traditional enforcement process. Using example 6.9.d.9 from the NRC Enforcement Policy, the inspectors determined that the violation was a Severity Level IV (more than minor concern that resulted in no or relatively inappreciable potential safety or security consequence) violation, because Entergy personnel failed to make a report required by 10 CFR 50.73 when information that the report was required had been reasonably within their ability to have identified. In accordance with Inspection Manual Chapter 0612, "Power Reactor Inspection Reports," traditional enforcement issues are not assigned cross-cutting aspects.

Inspection Report# : 2013002 *(pdf)*

Significance: N/A Mar 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Sumbit a Licensee Event Report for Condition Prohibited by Technical Specification 3.0.4
The inspectors identified a Severity Level IV non-cited violation of Title 10 of the Code of Federal Regulations (10 CFR) 50.73, "Licensee Event Report (LER) System," because a violation of technical specification (TS) 3.0.4 for a

reactor mode change being made from Mode 4 to Mode 2 without satisfying the TS required conditions for alignment of the containment air dilution and standby gas treatment (SGT) systems in Mode 2 was not reported to the NRC within 60 days of when it should reasonably have been discovered. Specifically, in Modes 1, 2, and 3, TS surveillance requirement 3.6.1.3.1 allows the 20-inch and 24-inch primary containment vent and purge valves to be open for inerting, deinerting, pressure control, or other reasons provided that valve 27MOV-120 in the full flow line to the SGT system is closed. This is to ensure that there would be no damage to the SGT filters if a loss-of-coolant accident were to occur with the vent and purge valves open. However, on November 24, 2012, operators transitioned the reactor from Mode 4 to Mode 2 while the 20-inch and 24-inch containment vent and purge valves and valve 27MOV-120 were open. This condition was not reported to the NRC within 60 days of when it should reasonably have been discovered. As immediate corrective action, FitzPatrick staff entered the issue into the corrective action program as condition report (CR)-JAF-2013-01097.

The inspectors determined that the failure to submit an LER within 60 days in accordance with 10 CFR 50.73 was a performance deficiency that was reasonably within Entergy's ability to foresee and correct. Because the issue impacted the regulatory process in that a violation of site TSs was not reported to the NRC within the required timeframe, thereby delaying the NRC's opportunity to review the matter, the inspectors evaluated this performance deficiency in accordance with the traditional enforcement process. Using example 6.9.d.9 from the NRC Enforcement Policy, the inspectors determined that the violation was a Severity Level IV (more than minor concern that resulted in no or relatively inappreciable potential safety or security consequence) violation, because Entergy personnel failed to make a report required by 10 CFR 50.73 when information that the report was required had been reasonably within their ability to have identified. In accordance with Inspection Manual Chapter 0612, "Power Reactor Inspection Reports," traditional enforcement issues are not assigned cross-cutting aspects.

Inspection Report# : 2013002 *(pdf)*

Significance: N/A Mar 31, 2013
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Obtain NRC Staff Review and Approval Prior to Changing the Technical Specification Definiation of a Core Quadrant
The inspectors identified a Severity Level IV non-cited violation of Title 10 of the Code of Federal Regulations (10 CFR) 50.59, "Changes, Tests, and Experiments," because Entergy personnel implemented a change to the technical specification (TS) definition of core quadrant without prior review and approval by the NRC staff in accordance with 10 CFR 50.59(c)(1)(i). Specifically, Entergy staff changed the definition of core quadrant in Revision 5 of reactor analyst procedure RAP-7.1.04C, "Neutron Instrumentation Monitoring During In-Core Fuel Handling," which allowed operators to interpret what constitute core quadrant boundaries such that core alterations could be performed anywhere in the core provided any three source range (neutron) monitors (SRMs) were operable. As immediate corrective action to the task interface agreement final response, FitzPatrick staff withdrew RAP-7.1.04C pending revision of the core quadrant definition. The inspectors verified that TS 3.3.1.2.2 had been satisfied during all core alterations that were performed during the 2010 and 2012 refueling outages using the standard definition of a core quadrant. Entergy staff entered this issue into the corrective action program as condition report (CR)-HQN-2013-00034.

The inspectors determined that Entergy staff's implementation of a redefinition of core quadrant prior to its review and approval by the NRC staff as specified in 10 CFR 50.59(c)(1)(i) was a performance deficiency that was reasonably within Entergy staff's ability to foresee and correct. Because this was a violation of 10 CFR 50.59, it was considered to be a violation that potentially impedes or impacts the regulatory process. Therefore, this violation was characterized using the traditional enforcement process. The violation was determined to be more than minor in accordance with the NRC Enforcement Manual, Section 7.3.E.6, because there was a reasonable likelihood that the change to the definition of what constituted a "core quadrant boundary" would require Commission review and approval prior to implementation. Additionally, the inspectors noted that in accordance with Inspection Manual

Chapter (IMC) 0612, Appendix B, "Issue Screening," the underlying performance deficiency would screen as more than minor because, if left uncorrected, it would have the potential to lead to a more significant safety concern. Specifically, potentially inadequate SRM coverage during refueling operations could affect the TS bases function to provide early indication of unexpected subcritical multiplication that could be indicative of an approach to criticality. NRC Enforcement Manual Section 7.3 provides guidance to assess 10 CFR 50.59 violations through the significance determination process (SDP). In this case, the inspectors determined the violation could be evaluated using the SDP in accordance with IMC 0609 Appendix G, "Shutdown Operations Significance Determination Process," Checklist 7, "BWR Refueling Operation with RCS Level Greater Than 23 Feet." The finding affected the reactivity guidelines attribute that assumes existing core alteration TS are being met. Since this attribute does not require quantitative assessment, the finding was screened as Green in accordance with Section 3.3, "Mitigation Capability." In accordance with the NRC Enforcement Policy, Section 6.1.d.2, this violation was categorized as Severity Level IV because the issue was evaluated by the SDP as having very low safety significance (Green). The finding did not have a cross-cutting aspect because the performance deficiency did not occur within the past 3 years and, therefore, was not reflective of present performance.

Inspection Report# : 2013002 *(pdf)*

Significance: G Dec 31, 2012
Identified By: Self-Revealing
Item Type: NCV NonCited Violation
Failure of 'A' EDG Output Breaker to Close Following Loss of Offsite Power
The inspectors identified a self-revealing, Green non-cited violation (NCV) of Technical Specification (TS) 5.4, "Procedures," because Entergy did not establish and implement an adequate procedure for installation of a 4160 volt alternating current (VAC) circuit breaker. Specifically, FitzPatrick's procedure for 4160 VAC circuit breaker installation did not provide sufficient guidance to station personnel to preclude physical misalignment of the 'A' emergency diesel generator (EDG) output breaker which occurred during installation on September 15, 2011, and resulted in failure of the breaker to close when required following a loss of offsite power on October 5, 2012. As immediate corrective action, the 'A' EDG output breaker was racked out, re-aligned in the cubicle, and racked back in such that it was no longer misaligned and was flush with the front of the cubicle. An instrumented test of the 'A' and 'C' EDGs was performed and all breakers operated correctly. The issue was entered into the corrective action program (CAP) as condition report (CR)-JAF-2012-06868.
The finding was more than minor because it affected the equipment performance attribute of the Mitigating Systems cornerstone objective to ensure the reliability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the reliability of Division 1 EDG automatic operation was degraded for approximately one year due to the 'A' EDG breaker misalignment issue. Although the issue was identified while the plant was shut down, the inspectors determined that it was appropriate to evaluate the condition in accordance with the at-power SDP because the condition existed for the previous year. In accordance with Inspection Manual Chapter (IMC) 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," the inspectors determined that the finding was of very low safety significance because the finding was not a design qualification deficiency resulting in a loss of functionality or operability, did not represent an actual loss of safety function of a system or train of equipment, and was not potentially risk significant due to external initiating events. Specifically, the 'A' EDG breaker continued to perform its safety function as evidenced by monthly surveillance tests until the misalignment condition ultimately impacted its ability to close subsequent to October 3, 2012 testing.
The finding had a cross-cutting aspect in the area of Human Performance, Resources, because FitzPatrick personnel did not ensure that a complete, accurate and up-to-date

procedure was available for 4160 VAC circuit breaker installation. Specifically, procedure did not include steps to ensure correct alignment during breaker racking and to verify flush alignment [H.2(c)].
Inspection Report# : 2012005 *(pdf)*

Significance: G Sep 30, 2012
Identified By: NRC
Item Type: NCV NonCited Violation
Untimely Corrective Action to Address Crescent Area Unit Cooler Operability
The inspectors identified a Green non-cited violation of 10 CFR Part 50, Appendix B, Criterion XVI, "Corrective Action," because FitzPatrick staff did not take timely corrective action to verify that a crescent area unit cooler was operable under postulated conditions of degraded grid voltage. Specifically, FitzPatrick staff did not schedule first time low voltage pickup testing for unit cooler 66UC-22B until after summer lake temperature had increased to the point that removing the unit cooler from service would have challenged the temperature limit for ultimate heat sink (UHS) operability. When the test was later performed, the as-found pickup voltage exceeded the maximum allowed by the procedure and required a case-specific analysis to demonstrate operability. As immediate corrective action, FitzPatrick electricians cleaned the contact assembly and retested the unit, with satisfactory results. FitzPatrick staff entered this issue into the corrective action program as condition report (CR)-JAF-2012-04443.

The finding was more than minor because it was similar to example 3.i in Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues," in that a case-specific engineering analysis was required to assure the accident analysis requirements were met. The finding also affected the equipment performance attribute of the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The inspectors evaluated the finding in accordance with IMC 0609, Appendix A, "The Significance Determination Process (SDP) for Findings At-Power," and determined that the finding was of very low safety significance (Green) because 66UC-22B maintained its functionality. The finding had a cross-cutting aspect in the area of Problem Identification and Resolution, Corrective Action Program, because FitzPatrick staff did not take appropriate corrective actions to address a safety issue in a timely manner, commensurate with its safety significance [P.1.(d)].
(Section 1R15)
Inspection Report# : 2012004 *(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

Significance: SL-III Dec 31, 2011
Identified By: NRC
Item Type: VIO Violation
EA-10-090/EA-10-248/EA-11-106 RP Technician Willful Violations
During NRC investigations initiated on July 1, 2009, February 5, 2010, and April 8, 2010, violations of NRC requirements were identified. The following requirements were violated: 10 CFR 20.1703, 'Use of individual respiratory protection equipment'; 10 CFR 20.1501, Subpart F, 'Surveys and Monitoring'; 10 CFR 50.9, 'Completeness and accuracy of information'. Contrary to the listed requirements, the licensee employees willfully violated multiple procedures and incorrectly documented completion of surveys and respirator fit tests.

These violations are categorized collectively as a Severity Level III violation. The NRC offered and Entergy accepted to conduct Alternative Dispute Resolution (ADR) for the above listed violations. The NRC has issued Confirmatory Order (CO) EA-10-090, EA-10-248, EA-11-106 in response to the agreed upon ADR actions. As addressed in the CO, no civil penalty was assessed based on previous actions completed and actions agreed to be completed by the licensee.

Inspection Report# : 2011009 *(pdf)*

Last modified : September 03, 2013