

## FitzPatrick

### 3Q/2012 Plant Inspection Findings

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### Initiating Events

**Significance:** G Jun 30, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

#### **Inadequate Procedure for Installation of Reactor Water Recirculation Motor-Generator Scoop Tube Positioners**

The inspectors identified a self-revealing non-cited violation (NCV) of Technical Specification (TS) 5.4, "Procedures," because Entergy staff did not provide adequate procedures for installation of a plant modification to replace the reactor water recirculation (RWR) motor-generator (MG) scoop tube positioners during the 2010 refueling outage. Specifically, excessive torque was specified for use on positioner ball joint fasteners, which damaged one of the ball joints and resulted in subsequent binding during attempted operation. As a result, on November 11, 2010, the 'B' RWR MG scoop tube positioner bound when operators attempted to reduce pump speed, and released the following day which resulted in an unexpected power reduction of approximately 1.5 percent (40 megawatts thermal (MWt)). As immediate corrective action, control room operators reduced flow in the 'A' RWR loop to restore compliance with the TS requirement for balanced loop flow, then locked the scoop tubes for both RWR MGs pending further evaluation of the event. The issue was entered into the corrective action program (CAP) as condition report (CR)-JAF-2010-07782.

The finding was more than minor because it was similar to example 4.b in Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues," in that it resulted in a plant transient. The finding also affected the Initiating Events cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown as well as power operations. The inspectors evaluated the finding using the Phase 1, "Initial Screening and Characterization," worksheet in Attachment 4 to IMC 0609, "Significance Determination Process." The inspectors determined the finding was not a loss of coolant accident or external events initiator, and did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. Therefore, the inspectors determined the finding to be of very low safety significance. The finding had a cross-cutting aspect in the area of Human Performance, Resources, because Design Engineering personnel did not ensure that accurate design documentation and procedures were available to assure successful implementation of the RWR MG scoop tube positioner modification [H.2(c)]. (Section 40A2)

Inspection Report# : [2012003](#) (*pdf*)

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### Mitigating Systems

**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*)

**Significance:**  Jun 30, 2012

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Failure to Follow Procedure During Removal from Service of Emergency Diesel Generator Ventilation**

The inspectors identified a self-revealing non-cited violation (NCV) of Technical Specification (TS) 5.4, “Procedures,” because Entergy personnel did not adequately implement procedures when removing the ventilation system for the ‘A’ emergency diesel generator (EDG) subsystem from service. Specifically, operators did not implement tagout placement instructions, which required that the affected EDGs be declared inoperable once the ventilation system was tagged out. Additionally, control room operators did not respond to the resultant ‘A’ EDG ventilation system common alarm in accordance with the alarm response procedure, which also would have led to the EDGs being declared inoperable. As a result, TS 3.8.1 was not entered in a timely manner and the TS surveillance requirement was not performed within the specified completion time. As immediate corrective action, the ‘A’ EDG subsystem was declared inoperable and the specified surveillance requirement was completed. The issue was entered into the corrective action program (CAP) as condition report (CR)-JAF-2012-02591.

The finding was more than minor because it affected the equipment performance attribute of the Mitigating Systems cornerstone objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the offsite electrical circuits were not verified available by operators for approximately three hours while the ‘A’ EDG subsystem was inoperable. The inspectors evaluated the finding using the Phase 1, “Initial Screening and Characterization of Findings,” worksheet in Attachment 4 to Inspection Manual Chapter (IMC) 0609, “Significance Determination Process.” The inspectors determined this 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. Therefore, the

inspectors determined the finding to be of very low safety significance. This finding has a cross-cutting aspect in the area of Human Performance, Work Practices, because operators did not follow procedures [H.4(b)]. (Section 1R13)

Inspection Report# : [2012003](#) (*pdf*)

**Significance:** N/A Apr 24, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**NRC Not Notified of a Licensed Operator's Change in Medical Status**

The inspectors identified a Severity Level IV NCV of 10 CFR 50.74, "Notification of Change in Operator or Senior Operator Status." Specifically, Entergy did not notify the NRC within 30 days of discovering a change in medical condition for a licensed operator. Subsequently, Entergy submitted a notification for the operator on February 15, 2012, and entered the issue into their corrective action program (CR-JAF-2012-00576). The inspectors determined that Entergy's failure to notify the NRC within 30 days of discovering the change in medical condition for the licensed operator was a performance deficiency that was within Entergy personnel's ability to foresee and correct and should have been prevented. The inspectors determined that traditional enforcement applies, as the issue had the potential to impact the NRC's ability to perform its regulatory function.

The significance of the associated performance deficiency was screened against the ROP per the guidance of IMC 0612, Appendix B. No associated ROP finding was identified and no cross-cutting aspect was assigned. This issue is similar to violation example 6.4.d.1 (a) in the NRC Enforcement Policy for a Severity Level IV violation because it involves noncompliance with medical requirements where the operator did not perform the functions of a licensed operator while having the potentially disqualifying medical condition. (Section 4OA5)

Inspection Report# : [2012301](#) (*pdf*)

**Significance:** N/A Mar 31, 2012

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Submit an LER Revision for a Condition Prohibited by TS Associated with the HPCI System**

The inspectors identified a Severity Level (SL) IV non-cited violation (NCV) of 10 CFR Part 50.73, "Licensee Event Report [LER] System," because a violation of Technical Specification (TS) 3.5.1.G for the condition of the high pressure coolant injection (HPCI) and reactor core isolation cooling (RCIC) systems being simultaneously inoperable was not reported to the NRC within 60 days of discovery. After this was identified by the inspectors, the issue was entered into Entergy's corrective action program (CAP) as CR-JAF-2011-04779. Entergy subsequently submitted Revision 1 to LERs 05000333/2010-005-00 and 05000333/2011-001-00.

The inspectors determined that the failure to revise LER 05000333/2010-005-00 within 60 days to include the violation of TS 3.5.1.G in accordance with 10 CFR Part 50.73 was a performance deficiency that was reasonably within Entergy's ability to foresee and correct, and should have been prevented. Because the issue impacted the regulatory process, in that a violation of site Technical Specifications 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 the violation was a SL IV (more than minor concern that resulted in no or relatively inappreciable potential safety or security consequence) violation, because Entergy personnel did not make a report required by 10 CFR Part 50.73. In accordance with Inspection Manual Chapter (IMC) 0612, Appendix B, traditional enforcement issues are not assigned cross-cutting aspects.

Inspection Report# : [2012002](#) (*pdf*)

**Significance:** G Dec 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

**Mode Switch in Shutdown Scram Function Inoperable in Excess of the TS Allowed Outage Time due to Personnel Error**

The inspectors identified a non-cited violation (NCV) of Technical Specification (TS) 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," because FitzPatrick operators did not take required action within the allowed completion time in response to an RPS relay failure. Specifically, following failure of RPS channel 'B' shutdown scram reset interlock logic relay 5A-K17B, which caused the reactor mode switch to shutdown manual scram to be disabled, action was not taken by operators to insert a half-scram on RPS channel 'B' within one hour as required by TS 3.3.1.1 Condition C. After further evaluation of the issue, operators inserted a half scram on RPS channel 'B'. The issue was entered into the corrective action program (CAP) as condition report (CR)-JAF-2011-06625.

The finding was more than minor because it affected the equipment performance attribute of the Mitigating Systems cornerstone objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the delay in implementing the TS required actions resulted in additional accrual of more than two hours of reactor operation with the reactor mode switch to shutdown manual scram bypassed. The inspectors evaluated the finding using the Phase 1, "Initial Screening and Characterization of Findings," worksheet in Attachment 4 to IMC 0609, "Significance Determination Process." The inspectors determined this 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. Therefore, the inspectors determined the finding to be of very low safety significance (Green). This finding had a cross-cutting aspect in the area of Human Performance, decision making, because operators did not use conservative assumptions in decision making and promptly apply readily available information contained in the alarm response procedure and TS Bases to determine TS applicability for the alarm condition [H.1(b) per IMC0310]. (Section 1R13)

Inspection Report# : [2011005](#) (pdf)

**Significance:** G Dec 31, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Ineffective Corrective Action for RCIC Steam Admission Valve Malfunction**

The inspectors identified a self-revealing NCV of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," because Entergy personnel did not promptly correct the intermittent failure of reactor core isolation cooling (RCIC) steam admission valve 13MOV-131 to fully open on demand. Specifically, Entergy staff's troubleshooting performed in response to the October 29, 2010, partial valve opening was not adequate in scope to identify the cause of the intermittent failure. As corrective action, a more extensive troubleshooting effort was undertaken by Entergy staff following a second failure of the valve to fully open on January 7, 2011, which was successful at identifying and correcting the problem. The issue was entered into the CAP as CR-JAF-2011-00123.

The finding was more than minor because it affected the equipment performance attribute of the Mitigating Systems cornerstone objective to ensure reliability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the loose electrical connections in the 13MOV-131 motor control circuit affected the reliability of the RCIC system. Since the RCIC pump achieved rated discharge flow and pressure on both occasions that 13MOV-131 failed to fully open, the inspectors concluded that RCIC remained capable of performing its design function during the period that this condition existed. The inspectors evaluated the finding using the Phase 1, "Initial Screening and Characterization of Findings," worksheet in Attachment 4 to IMC 0609, "Significance Determination Process." The inspectors determined this 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. Therefore, the inspectors determined the finding to be of very low safety significance (Green). The finding had a cross-cutting aspect in the area of Human Performance, work control, because Entergy personnel did not appropriately plan the scope of 13MOV-131 troubleshooting activity by incorporating consideration of the high risk significance of the RCIC system [H.3 (a) per IMC0310]. (Section 4OA3)

Inspection Report# : [2011005](#) (*pdf*)

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## Barrier Integrity

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## Emergency Preparedness

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## Occupational Radiation Safety

**Significance:**  Dec 31, 2011

Identified By: Self-Revealing

Item Type: FIN Finding

### **Inadequate Work Planning for 'A' Reactor Recirculation Pump Replacement.**

The inspectors identified a self-revealing finding that involved inadequate work planning relative to the 'A' recirculation pump replacement work during refueling outage R19 that resulted in additional unplanned collective exposure (39.168 person-rem compared to a work activity estimate of 15.831 person-rem). The actual job site conditions were not adequately evaluated by Entergy staff for interferences and the support work was not coordinated to prevent additional unnecessary exposure and did not meet the Radiation Work Permit (RWP) No. 10-0518 planned dose execution for the work activity. This inadequate evaluation lead to as-found interferences that required removal and reinstallation, and insufficient outage schedule coordination that resulted in several scaffold interferences with other outage tasks that caused avoidable scaffold rework and in unintended exposure that could have been avoided by Entergy personnel.

The finding was more than minor because it was associated with the Radiation Safety -Occupational Radiation Safety cornerstone attribute of program and process, and affected the cornerstone objective of protecting worker health and safety from exposure to radiation. Specifically, inadequate work planning resulted in unplanned, unintended collective exposure that was greater than 50 percent above the intended collective exposure and greater than five person-rem due to conditions that were reasonably within Entergy's ability to foresee and correct. The inspectors evaluated the finding using IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," and determined that the finding was of very low safety significance (Green) because the finding was due to As Low As Reasonably Achievable (ALARA) work control planning and the three year rolling average collective exposure at FitzPatrick was less than 240 person-rem (146.593 person-rem for 2008-2010). The finding had a cross-cutting aspect in the area of Human Performance, work control, because Entergy's planned work activities did not adequately incorporate work site interferences or outage work coordination in the work control planning process [H.3 (b) per IMC0310]. (Section 2RS2)

Inspection Report# : [2011005](#) (pdf)

**Significance:** G Dec 31, 2011

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

**Failure to Follow Radiation Protection Procedures**

The inspectors identified a self-revealing NCV of TS 5.4, "Procedures," which requires that written procedures be implemented covering the activities in the applicable procedures recommended by Regulatory Guide 1.33, including procedures for RWPs and ALARA reviews. Specifically, as of December 12, 2011, post job reviews for most of the 2010 R-19 RWPs (52 of 55) had not been completed as required by procedure EN-RP-105, "Radiological Work Permits," Revision 10. This procedure requires post job reviews to be completed within 90 days from the end of the outage. The performance deficiency could lead to repeating errors and not planning the upcoming R-20 with needed improvements. Since planning for the R-20 outage had already begun, the inspectors concluded that lessons learned in the R-19 outage RWPs may not be incorporated into the R-20 RWPs and additional, avoidable exposure could be received. Entergy staff subsequently developed a tracking schedule to complete the reviews and entered the issue into the CAP as CR-JAF-2011-04152.

The finding was more than minor because it was associated with the Radiation Safety -Occupational Radiation Safety cornerstone attribute of program and process, and affected the cornerstone objective of protecting worker health and safety from exposure to radiation. Specifically, Entergy staff did not complete RWP close out documentation to identify lessons learned and actions to reduce worker exposure in subsequent refueling outages. The inspectors evaluated the finding using IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," and determined that the finding was of very low safety significance (Green) because it did not involve: (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose. The finding had a cross-cutting aspect in the area of Human Performance, work practices, because Entergy personnel did not effectively communicate expectations regarding procedural compliance [H.4(b) per IMC0310]. (Section 2RS2)

Inspection Report# : [2011005](#) (pdf)

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## Public Radiation Safety

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## 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.

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## Miscellaneous

**Significance:** N/A Mar 16, 2012

Identified By: NRC

Item Type: FIN Finding

**Identification and Resolution of Problems**

The inspectors concluded that Entergy was generally effective in identifying, evaluating, and resolving problems. James A. FitzPatrick Nuclear Power Plant (FitzPatrick) personnel identified problems, entered them into the corrective action program (CAP) at a low threshold, and prioritized issues commensurate with their safety significance. In most cases, station personnel appropriately screened issues for operability and reportability, and performed causal analyses that appropriately considered extent-of-condition, generic issues, and previous occurrences. The inspectors also determined that Entergy personnel typically implemented corrective actions to address the problems identified in the corrective action program in a timely manner.

The inspectors concluded that, in general, Entergy adequately identified, reviewed, and applied relevant industry operating experience to FitzPatrick operations. In addition, based on those items selected for review, the inspectors determined that Entergy's self-assessments and audits were self-critical and thorough. Station personnel effectively identified and elevated adverse performance trends for senior site management review through use of the Entergy Trending Process.

Based on interviews the inspectors conducted over the course of the inspection, observations of plant activities, and reviews of individual corrective action program and employee concerns program issues, the inspectors did not identify indications that site personnel were unwilling to raise safety issues nor did they identify conditions that could have had a negative impact on the site's safety conscious work environment.

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

**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 : November 30, 2012