

FitzPatrick

4Q/2011 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance:  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:  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*)

Significance: SL-IV Jun 30, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

UFSAR Emergency Bus Voltage Not Updated, Consistent with Current Plant Conditions

The inspectors identified a Severity Level IV (SL IV) NCV of Title 10, Code of Federal Regulations (10 CFR) Part 50.71(e) because FitzPatrick personnel did not update the Updated Final Safety Analysis Report (UFSAR) with information consistent with plant conditions. Specifically, FitzPatrick personnel did not remove reference to or correct information in UFSAR Section 8.6.6.c, "Emergency Bus Voltages When Operating From the Reserve Source," to reflect current plant conditions with regard to the listed maximum voltage capable of being produced at the emergency bus from the reserve source during a low load condition. This issue was considered within the traditional enforcement process because it had the potential to impede or impact the NRC's ability to perform its regulatory functions. FitzPatrick issued condition report (CR) CR-JAF-2011-03023 to address the UFSAR discrepancy.

The inspectors concluded that the violation was more than minor because the longstanding and incorrect information in the UFSAR had a potential impact on safety and licensed activities. Excessive voltage on an emergency bus can result in equipment damage, or loss due to the actuation of protective devices such as overcurrent fuses. Similar to Enforcement Policy Section 6.1, example D.3, the inspectors determined the violation was of SL IV because the erroneous information not updated in the UFSAR was not used to make an unacceptable change to the facility nor did it impact a licensing or safety decision by the Nuclear Regulatory Commission (NRC).

Inspection Report# : [2011003](#) (*pdf*)

Significance:  Mar 31, 2011

Identified By: NRC

Item Type: NCV NonCited Violation

Control Room Envelope Inoperable due to Unlatched Boundary Door

The inspectors identified a non-cited violation (NCV) of very low safety significance of 10 CFR 50, Criterion XVI, "Corrective Action," because Entergy personnel did not identify and correct a condition adverse to quality related to a control room envelope (CRE) boundary door. Specifically, Entergy personnel did not identify and implement adequate actions to ensure the safety-related CRE boundary door, 70DOR-A-300-5, remained latched and able to perform its safety function. As corrective action, the foreign material that prevented the door from consistently latching was removed by Entergy personnel. The issue was entered into the corrective action program (CAP) as condition reports CR-JAF-2010-08617 and CR-JAF-2011-00407.

The finding was more than minor because it was associated with the configuration control and the barrier performance attributes specific to the radiological barrier function of the control room. The finding affected the Barrier Integrity cornerstone objective to provide reasonable assurance that physical design barriers (fuel cladding, reactor coolant system, and containment) protect the public from radionuclide releases caused by accidents or events. The finding was determined to be of very low safety significance in accordance with IMC 0609, Appendix A, "Determining the Significance of Reactor Inspection Findings for At-Power Situations," based on a Phase 3 analysis. The inspectors

determined the period that the door was potentially open was small relative to the technical specification (TS) allowed outage time, and therefore represented very low safety significance, considering the low probability of a design basis accident during that time period.

The finding had a cross-cutting aspect in the area of problem identification and resolution within the corrective action program component because Entergy personnel did not completely and accurately identify the degraded condition of the door.

Inspection Report# : [2011002](#) (pdf)

Barrier Integrity

Emergency Preparedness

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:  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*)

Public Radiation Safety

Physical Protection

Although the NRC is actively overseeing the Security cornerstone, the Commission has decided that certain findings pertaining to security cornerstone will not be publicly available to ensure that potentially useful information is not provided to a possible adversary. 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)

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