FitzPatrick
1Q/2011 Plant Inspection Findings

Initiating Events

Mitigating Systems

Significance: G 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)*

Significance: G Dec 31, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Procedure for Refueling Water Level Control Resulted in Overflowing of Reactor Cavity Water in the Reactor Building
A self-revealing NCV of very low safety significance of technical specification (TS) 5.4, "Procedures," was identified because Entergy procedure OP-30A, "Refueling Water Level Control," did not provide adequate guidance to operators for filling the reactor cavity which resulted in the reactor building (RB) floor drains overflowing and water intrusion from higher to lower levels in the RB. Entergy personnel entered this issue into their corrective action program (CAP), (CR-JAF-2010-05406 and CR-JAF-2010-05407) and performed several actions to ensure proper water level control prior to the next drain down of the reactor cavity. These actions included revising OP-30A to provide sufficient detail, ensuring additional detail would be included in pre-job briefings to include potential drain paths from the

reactor cavity and spent fuel pool, and installing a dedicated camera to monitor reactor cavity water level.

This finding is more than minor because it is associated with the procedure quality attribute of the Initiating Events cornerstone and affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during shutdown. Specifically, water spray throughout areas of the RB created a potential for water entering motors, valve operators, motor control centers, circuit breakers, and electricaljunction boxes, such that electrical components could have been compromised, which increased the likelihood of an event that would upset plant stability and challenge a critical safety function. The inspectors determined the significance of the finding using IMC 0609, Appendix G, "Shutdown Operations Significance Determination Process," Phase 1. The finding was determined to be of very low safety significance because Entergy personnel maintained an adequate mitigation capability and there was there neither an inadvertent loss of two feet of RCS inventory nor an inadvertent reactor coolant system pressurization.

The inspectors determined this finding had a cross-cutting aspect in the area of human performance within the resources component because the procedure used for filling the reactor cavity was not sufficiently complete to assure nuclear safety. (H.2(c) per IMC 0310).
Inspection Report# : 2010005 *(pdf)*

Significance: G Dec 31, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Maintain Equipment Status Control for a Manually Operated Normally Locked Open Residual Heat Removal Injection Valve
A self-revealing NCV of very low safety significance of TS 5.4, "Procedures," was identified because Entergy personnel did not implement AP-12.06, "Equipment Status Control," as required. Specifically, Entergy personneldid not maintain status control and properly document the position of the residual heat removal (RHR) to reactor water recirculation loop 'B' isolation valve (10RHR-818) as closed nor did operators restore the valve to its normal locked open position upon completion of a leak surveillance test. Entergy personnel entered this issue into their corrective action program (CAP), (CR-JAF-2010-06656) and promptly restored the valve to its required locked open position.

This finding is more than minor because it is associated with the configuration control attribute of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences (i.e. core damage). Specifically, the operators did not maintain configuration control of the RHR isolation valve and restore the valve to a locked open position when the 'B' RHR subsystem was credited for maintaining acceptable shutdown risk. The inspectors determined the significance of the finding using IMC 0609, Appendix G, "Shutdown Operations Significance Determination Process." The issue was determined to screen as very low safety significance (Green) because the 'B' RHR train could be considered available with respect to Appendix G, Section 4.0, and Attachment 3, Section 2,2.3. Specifically, the inspectors determined that operators had more than twice the time available (with a shortest time to boil of 5.8 hours) than would have been required to identify and take action to restore/open the RHR isolation valve in the event of a loss of shutdown cooling or RCS inventory.

This finding had a cross-cutting aspect in the Human Performance cross-cutting

area, Work Practices component, because Entergy personnel did not define and effectively com m unicate expectations regard ing proced ural compliance, and personnel did not follow procedures (H.4(b) per IMC 0310).
Inspection Report# : 2010005 *(pdf)*

Significance: G Sep 30, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Appendix R Fire Door Blocked Open Without Establishing Required Measures
The inspectors identified a non-cited violation (NCV) of very low safety significance of license condition 2.C(3), "Fire Protection," because Entergy personnel blocked a fire door in the open position, defeating its required three hour fire barrier function, without establishing the required compensatory measures. Entergy entered this issue into their CAP as CR-JAF-2010-04825, issued a night order emphasizing the requirements associated with propping open fire doors, provided coaching, and submitted a procedure change request to further clarify procedural applicability requirements.

This finding is more than minor because it is associated with the protection against external events attribute of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, the fire door being affixed open without the knowledge of the control room personnel and other operators and without an assigned fire watch resulted in a barrier to fire propagation that was less robust than required by the approved fire protection program. The inspectors determined the significance of the finding using IMC 0609, Appendix F, "Fire Protection Significance Determination Process," Phase 1. The finding was determined to be of very low safety significance (Green) because the deficiency represented a low degradation rating. Specifically, the individuals involved were members of the fire brigade, qualified in fire watch duties, and only blocked the door open during resin container transfers. The inspectors determined this finding had a cross-cutting aspect in the area of human performance within the work practices component because Entergy did not effectively communicate expectations to personnel regarding the applicable procedures and personnel did not follow the procedures (H.4(b)).
Inspection Report# : 2010004 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Use Largest Load During EDG Reject Surveillance Test
The team identified a finding involving a non-cited violation of James A. FitzPatrick Technical Specification (TS) Surveillance Requirement (SR) 3.8.1.8 because Entergy did not adequately perform the largest post-accident load rejection test as required by the SR. Specifically, Entergy's surveillance test that implemented this SR rejected a load of about 1000 brake horse power (BHP) and the largest post-accident load calculated by Entergy was 1270 BHP. Entergy entered this issue into their corrective action program to evaluate operability of each emergency diesel generator (EDG) subsystem and to correct the surveillance test for rejection of the largest postaccident load. The team reviewed Entergy's operability determination and concluded it appropriately determined the EDG subsystems were operable but non-conforming to SR 3.8.1.8.
This finding is more than minor because it is associated with the Procedure Quality Attribute (maintenance and testing) of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating event to prevent undesirable consequences. The team performed a Phase 1 SDP screening, in accordance with NRC IMC 0609, Attachment 4, "Phase 1 - Initial Screening and Characterization of Findings," and determined the finding was of very low safety Significance (Green) because it was a qualification deficiency confirmed not to result in loss of operability.

The team did not identify a cross-cutting aspect associated with the finding because the

performance deficiency occurred during the historical development of ST-9C, Emergency AC Power Load Sequencing Test and 4KV Emergency Power System Voltage Relays Instrument Functional Test. The team determined there was not a reasonable opportunity to identify the deficiency during the recent past. Therefore, the issue was determined not to be indicative of current licensee performance. (1 R21.2.1.1)
Inspection Report# : 2010006 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Calculations for Offsite Power Availability
The team identified a finding involving a non-cited violation of 10 CFR 50, Appendix B, Criterion III, "Design Control," in that Entergy did not verify the adequacy of design with respect to establishing the basis for the offsite power minimum voltage and the degraded voltage relay reset setpoint. Specifically, Entergy failed to adequately evaluate the results of load flow studies that determined safety bus voltage would be below the relay reset value following some design basis events. The team concluded that this could result in separation of the vital busses from the offsite power supply during some design basis events. Entergy entered this issue in the corrective action program to verify offsite power was operable, and instructed the offsite grid operator to raise the minimum grid voltage limit and revise the post accident grid loading profile.
The finding is more than minor because it is associated with the design control attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The team determined the finding was of very low safety significance (Green) because it was a design deficiency confirmed not to result in a loss of the offsite power supply operability or functionality.
This finding had a cross-cutting aspect in the area of Human Performance Resources because the licensee did not ensure that personnel, equipment, procedures, and other resources are available to ensure complete, accurate and up-to-date design documentation. Specifically, the acceptance criteria in the recently completed calculations that evaluated the offsite power voltage limit was not correct which resulted in an incorrect evaluation of the results of the calculation. (IMC 0310, Section H.2(c)) (1 R21.2.1.2)
Inspection Report# : 2010006 *(pdf)*

Significance: G Jul 02, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Inadequate Corrective Action on RHRSW Strainer Housing Wall Degradation
The team identified a finding involving a non-cited violation of 10 CFR 50, Appendix 8, Criterion XVI, "Corrective Actions," for failure to identify and correct a condition adverse to quality. Specifically, Entergy did not take corrective actions to evaluate the rate of identified degradation on the 1 OS-58 1 residual heat removal service water (RHRSW) strainer casing. This resulted in a through wall leak in the strainer which was identified by the team. The team's review found that in 2006 Entergy had conducted ultrasonic test (UT) measurements of the strainer and determined that degradation was occurring. Corrective actions for the deficiency required that aUT examination be performed to monitor for further degradation but it was not performed. In response, Entergy entered the issue into the corrective action program, and conducted an UT examination at the leak location to determine the size and extent of the defect which determined that strainer's structural integrity was maintained.
The finding is more than minor because it is associated with the equipment performance attribute of the Mitigating Systems Cornerstone and affected the cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The team determined the finding was of

very low safety significance (Green) because the finding was determined to be a qualification deficiency confirmed not to result in loss of operability.
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 safety issues in a timely manner. Specifically, Entergy did not take action to determine the degradation rate of the 10S581 RHRSW strainer which resulted in a through wall leak. (IMC 0310, Aspect P.1 (d)) (1 R21.2.1.3)
Inspection Report# : 2010006 *(pdf)*

Significance: G Jun 30, 2010
Identified By: NRC
Item Type: NCV NonCited Violation
Fire Barrier Penetrations Not Maintained as Qualified Three Hour Fire Barriers
A self-revealing non-cited violation (NCV) of very low safety significance of license condition 2.C(3), "Fire Protection," was identified because Entergy personnel did not implement and maintain in effect all provisions of the approved fire protection program when multiple electrical and mechanical three hour fire barrier penetrations were not qualified to perform their required three hour fire barrier function. Entergy initiated condition report (CR)-JAF-2010-01417, CR-JAF-2010-01432, CR-JAF-2010-01438, and CR-JAF-2010-01441 to address the issues, implemented fire watches as compensatory measures, poured new qualified seals, and revised maintenance procedures for installing penetration seals to explicitly describe the need to pre-mix the powder component with the liquid elastomer.

This finding is more than minor because it is associated with the protection against external events attribute of the Mitigating Systems cornerstone and affected the cornerstone objective to ensure the availability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Specifically, multiple fire barrier penetrations were not qualified to perform their required three hour fire barrier function and provided a barrier to fire that was less than that provided by the properly installed and qualified fire barriers. The inspectors determined the significance of the finding using Inspection Manual Chapter (IMC) 0609, Appendix F, "Fire Protection Significance Determination Process," Phase 1. The finding was determined to be of very low safety significance (Green) because the deficiency represented a low degradation rating, since the non-qualified seals consisted of base components which had been qualified as three hour fire barriers at other nuclear facilities. The inspectors determined this finding had a cross-cutting aspect in the area of human performance within the work practices component because Entergy personnel proceeded in the face of unexpected circumstances when the packaging for the kits changed and when kits were issued without a powder component.

Inspection Report# : 2010003 *(pdf)*

Barrier Integrity

Emergency Preparedness

Occupational Radiation Safety

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: N/A Dec 03, 2010
Identified By: NRC
Item Type: FIN Finding
2010 FitzPatrick PIR Team Summary
The team concluded that Entergy personnel were generally effective in identifying, evaluating, and resolving problems. In most instances, FitPatrick personnel identified problems at a low threshold and entered them into the Corrective Action Program (CAP). The team determined that FitzPatrick staff screened issues appropriately for operability and reportability, and prioritized issues commensurate with the safety significance of the problems. Causal analyses appropriately considered extent of condition, generic issues, and previous occurrences. The team determined that corrective actions addressed the identified causes and were implemented in a timely manner.

Entergy's audits and self-assessments reviewed by the team were thorough and probing. Additionally, the team concluded that Entergy personnel, in general, adequately identified, reviewed, and applied relevant industry operating experience (OE) to FitzPatrick. Based on interviews, observations of plant activities, and reviews of the CAP and the Employee Concerns Program (ECP), the team did not identify concerns with site personnel's willingness to raise safety issues nor did the team identify conditions that indicated a negative impact on the site's safety conscious work environment.
Inspection Report# : 2010007 *(pdf)*

Last modified : June 07, 2011