Browns Ferry 3
3Q/2006 Plant Inspection Findings

Initiating Events

Significance: G Jun 30, 2006
Identified By: Self-Revealing
Item Type: FIN Finding
Improper Return To Service of 500 KV Trinity Transmission Line Results in Unit 3 Reactor Scram
A Green self-revealing finding was identified for failure to correctly implement an offsite switching order by transmission system personnel that resulted in a Unit 3 reactor scram. This issue was documented in the licensee's corrective action program as Problem Evaluation Report 91811.

This finding was greater than minor because it is associated with the Initiating Event Cornerstone attributes of Human Performance and Procedure Quality, and adversely affected the cornerstone objective to limit the likelihood of those events that upset plant stability and challenge critical safety functions during at-power operations. The finding was determined to be of very low safety significance because it did not contribute to both the likelihood of a reactor trip and the likelihood that mitigating equipment or functions were not available.
Inspection Report# : 2006003*(pdf)*

Significance: G Dec 31, 2005
Identified By: NRC
Item Type: FIN Finding
Requalification Program Simulator Exam Grading Error Resulted In Unidentified Individual Failure
Green. The inspectors identified a finding for licensee grading errors which resulted in a failure to identify an individual performance issue that would have resulted in an operational test failure during a biennial operating test requalification examination.

The finding is more than minor because if left uncorrected, it would allow less-than-competent operators to continue licensed duties and it affected the human performance attribute of the Initiating Event Cornerstone. The inspectors evaluated the finding using MC 0609, Significance Determination Process, Appendix I. Using the Operator Requalification Human Performance SDP flow chart, the finding involved the licensee's grading of an exam, in which the licensee failed to identify an individual performance issue which would have resulted in an operational test failure. Per the SDP flowchart, this finding is of low safety significance because it is likely that a single operator's potential error would be prevented or mitigated by the rest of the crew. (Section 1R11)

Inspection Report# : 2005005*(pdf)*

Significance: G Nov 18, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Three Examples of Inadequate Implementation of Corrective Actions
The inspectors identified a finding involving a non-cited violation (NCV), with three examples, of 10 CFR 50, Appendix B, Criterion XVI, for inadequate implementation of corrective actions for two previously identified NCVs. The previous NCVs were associated with rigging deficiencies that resulted in the drop of a Reactor Building crane trolley and with a human performance error that resulted in the loss of a 480-volt Shutdown Board and inadvertent start of emergency equipment.

The finding was more than minor because it is associated with the Procedure Quality attribute and objective of the Reactor Safety/Initiating Event Cornerstone. In addition, if left uncorrected, this finding would result in a more significant safety

concern because the failure to implement the corrective actions for the NCVs would result in more significant safety concerns. This finding was determined to be of very low safety significance because no related examples of significant rigging deficiencies or loss of power to shutdown boards caused by relay calibrations have occurred as a result of the inadequate implementation of corrective actions. The cause for all three examples were determined to affect the PI&R crosscutting area.

Inspection Report# : 2005011*(pdf)*

Mitigating Systems

Significance: G Sep 15, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Cellular Phone Communications Unreliable for Alternate Shutdown in FA16
The team identified a non-cited violation (NCV) of Unit 2 Operating License Condition 2.C.14 and Unit 3 Operating License Condition 2.C.7 for failure to have adequate communications to implement alternate shutdown for a fire in fire area (FA) 16 using procedure 2/3-SSI-16.

This issue is a performance deficiency because the cell phone system was unreliable and the F4 portable radio system was not credited for a fire in FA 16. The finding is greater than minor because it affected the ability of the licensee to maintain communications for a fire in FA 16 and is associated with the mitigating systems cornerstone and respective attribute of protection against external factors, i.e., fire in that degraded communications would impact the ability to achieve SSD following a fire. This finding was determined to be a finding of very low safety significance (Green) because it only affected the ability to reach and maintain cold shutdown conditions due to the availability of alternate communications measures (F4 radios) for a time period sufficient to achieve hot shutdown conditions.
Inspection Report# : 2006014*(pdf)*

Significance: G Jun 30, 2006
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Implement Required Fire Watches
A Green non-cited violation of TS 5.4.1.d, Fire Protection Program Implementation, was identified by the inspectors for the licensee's failure to implement compensatory measures (i.e., roving fire watches) as prescribed by the Browns Ferry Fire Protection Plan for disabled fire detection systems in multiple Fire Areas in the Control Building. This issue was documented in the licensee's corrective action program as Problem Evaluation Report 102745.

This finding was more than minor since it was associated with the Protection Against External Factors attribute of the Reactor Safety Mitigating Systems cornerstone, and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. The finding was of very low safety significance because the capability of other principal defense-in-depth fire protection features were unaffected, such as the associated fire barriers, control of transient combustibles, manual fire suppression equipment, and the fire brigade. This finding has a crosscutting element in the area of human performance because the fire protection impairment permits and Fire Watch/Coverage sheets did not provide instructions for conducting compensatory measures (i.e., roving fire watches) in all the necessary fire areas.
Inspection Report# : 2006003*(pdf)*

Barrier Integrity

Significance: G Jun 30, 2006

Identified By: NRC
Item Type: NCV NonCited Violation
Ineffective Maintenance To Ensure Performance Of Unit 3 Drywell Equipment Hatch 1A To Fulfill Its Maintenance Rule Function
A Green non-cited violation of 10 CFR 50.65(a)(2) was identified by the inspectors due to the licensee's failure to maintain effective control of the Unit 3 Drywell Equipment Hatch 1A leak tightness through their preventative maintenance program, and their failure to establish goals and monitor in accordance with 10 CFR 50.65(a)(1). This issue was documented in the licensee's corrective action program as Problem Evaluation Report 100822.

This finding was more than minor because it was associated with the System, Structure or Component and Barrier Performance attribute of the Barrier Integrity Cornerstone, and adversely affected the cornerstone objective of assuring a containment barrier for protecting the public from radionuclide releases caused by accidents or events. In addition, this finding was consistent with example 7.b of Inspection Manual Chapter 0612, Appendix E, for issues greater than minor. The finding was determined to be of very low safety significance because the subsequent leakage associated with the Drywell Equipment Hatch 1A did not significantly contribute to the Large Early Release Frequency. This finding has a cross-cutting element in the area of problem identification and resolution because the licensee failed to thoroughly evaluate the second consecutive local leak rate test failure of the Unit 3 Drywell Equipment Hatch 1A to ensure that the cause of the first failure was adequately corrected.
Inspection Report# : 2006003*(pdf)*

Significance: G Dec 31, 2005
Identified By: NRC
Item Type: NCV NonCited Violation
Failure to Follow Procedure in Response to Automatic Rod Blocks
Green. The inspectors identified a non-cited violation of Technical Specifications 5.4.1.a when reactor operators failed to adequately implement all required procedural steps of 3-ARP-9-5A for Rod Block Monitor High, and 3-OI-92C, Rod Block Monitor, on numerous occasions when automatic rod blocks occurred during continuous rod withdrawals for Unit 3 power ascension.

The finding is more than minor because, if left uncorrected, it would result in a more serious safety concern during an actual rod withdrawal error event, and it affected the human performance attribute for maintaining fuel clad functionality of the Barrier Integrity Cornerstone. However, this finding is of very low safety significance because the minimum critical power ratio safety limit was not violated or approached, and the associated control rods were withdrawn per the required sequence and not in error. The operators' failure to recognize and follow their annunciator response procedures was a cause of the finding and directly involved cross cutting aspects of Human Performance. (Section 1R14)
Inspection Report# : 2005005*(pdf)*

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

Physical Protection

Physical Protection information not publicly available.

Miscellaneous

Significance: N/A Nov 18, 2005
Identified By: NRC
Item Type: FIN Finding
Problem Identification and Resolution (PI&R) Inspection - U2/3 Results
Overall, the licensee maintained an effective program for the identification and correction of conditions adverse to quality. Site management was purposely active and involved in the Corrective Action Program (CAP) and focused appropriate attention on significant plant issues. The licensee was effective at identifying problems at a low threshold and entering them into the CAP. In general, the licensee consistently prioritized issues in accordance with their CAP and routinely performed adequate evaluations that were technically accurate and of sufficient depth. However, several issues were identified related to ineffective implementation of corrective actions for previously identified NRC violations and other corrective action issues identified by the licensee.

Formal root cause evaluations for significant conditions adverse to quality were thorough and detailed. Corrective actions developed for lower level root and contributing causes were generally timely, effective, and commensurate with the safety-significance of the issue. Improvement was noted in management oversight to ensure all contributing causes were being adequately considered for broader corrective actions, extent of condition reviews, and enhanced trending.

Self-assessments, audits performed by the Nuclear Assurance (NA) organization, and Multi-site CAP Self-Assessments, were effective in identifying issues and entering them into the CAP. These audits and self-assessments were self-critical and identified substantive issues, numerous lower level problems, and areas that needed improvement. The audits and self-assessments reviewed appeared to be comprehensive and thorough. However, several identified repeat issues from previous self-assessments and audits in which prior corrective actions had proven ineffective. Although new Problem Evaluation Reports (PERs) were issued to address each specific repetitive problem, the licensee did not always clearly delineate the repeat nature of the PER and thereby lost an opportunity to bring additional attention to the problem or take action to determine why the previous corrective actions were ineffective.

Based on review of the licensee's Concerns Resolution Program (CRP) and discussions conducted with plant employees from various departments, the inspectors did not identify any reluctance to report safety concerns. Increased program usage in conjunction with the increase in Unit 1 recovery activities was being adequately managed. Based on the samples reviewed, the depth of issue evaluations were adequate to address the identified concerns raised to the CRP. Oversight of contractor CRPs was being implemented in an appropriate manner.

Inspection Report# : 2005011*(pdf)*

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