

Browns Ferry 3

1Q/2007 Plant Inspection Findings

Initiating Events

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Significance: 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 \(pdf\)](#)

Mitigating Systems

G

Significance: Dec 31, 2006

Identified By: NRC

Item Type: NCV NonCited Violation

Lack of Assured Cooling Water for Emergency Diesel Generators During SBO Conditions

The inspectors identified a non-cited violation (NCV) of 10 CFR 50, Appendix B, Criterion III, Design Control, that affected Units 2 and 3. The licensee's calculations and procedures did not adequately implement the plant's licensing basis for Station Blackout (SBO), in that, they did not ensure the operating emergency diesel generators (EDGs) would have an adequate cooling water supply during a SBO with certain plant equipment configurations.

This finding is of greater than minor safety significance because it affected the objectives of the Mitigating Systems Cornerstone. It affected the availability and reliability of systems that mitigate initiating events to prevent undesirable consequences. The finding has very low safety significance due to the few very specific combinations of EDG failures that could lead to a loss of cooling water flow to all of the running EDGs. The licensee took prompt corrective action by revising procedures to add immediate operator actions to ensure adequate cooling water supply to the EDGs.

Inspection Report# : [2006005 \(pdf\)](#)

G

Significance: 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)

G

Significance: 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

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Significance: 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)

Emergency Preparedness

Occupational Radiation Safety

Public Radiation Safety

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Significance: Mar 31, 2007

Identified By: Self-Revealing

Item Type: NCV NonCited Violation

Failure to Properly Prepare a Radioactive Materials Package for Shipment

A Green self-revealing non-cited violation of 10 CFR 71.5 was identified for failure to properly package radiological material such that, under conditions normally incident to transportation, the radiation levels at the external surface of the package would not exceed applicable Department of Transportation (DOT) limits. When the two shipments arrived at a processing facility on April 21, 2005, the radiation dose rates measured on portions of the external surface of the packages were as high as 300 mrem/hr, which was in excess of the 200 mrem/hr limit specified by the regulation. The licensee established additional supervisory review and approval prior to shipping packages approaching DOT limits. This finding was entered into the licensee's corrective action program as PER 81364.

This finding is more than minor because it is associated with the Plant Facilities/ Equipment and Instrument attribute of the Public Radiation Safety cornerstone and adversely affected the cornerstone objective, in that, the improper transportation packaging resulted in a shipping container with external dose levels exceeding regulatory requirements. Using the Public Radiation Significance Determination Process, the finding was determined to be of very low safety significance because the areas on the packages with elevated radiation levels were inaccessible to the public and the radiation levels were less than two times the DOT limit.

Inspection Report# : [2007002 \(pdf\)](#)

Physical Protection

[Physical Protection](#) information not publicly available.

Miscellaneous

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Significance: Mar 31, 2007

Identified By: NRC

Item Type: NCV NonCited Violation

Work Hours for I&C Mechanics Exceeded Overtime Limits Without Prior Authorization

The inspectors identified a Green non-cited violation of Technical Specification 5.2.2.d due to inadequate management oversight and awareness of the administrative requirements for controlling overtime which resulted in multiple instances of Instrumentation and Control personnel exceeding overtime limits without prior authorization and documentation.

Management immediately changed work schedules to comply with the Technical Specification requirements and entered the issue into their corrective action program as PER 119016.

This finding was greater than minor because if left uncorrected it could become a more significant safety concern due to excessive fatigue by key maintenance personnel performing safety-related activities. An NRC management review determined that the finding was of very low safety significance because no specific performance deficiencies were identified for the individuals during the time they exceeded the established overtime limits

Inspection Report# : [2007002 \(pdf\)](#)