

## Browns Ferry 2

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### Initiating Events



**Significance:** Sep 23, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

**Failure to Meet TS SR 3.0.4 for Instrument Channel Checks.**

A non-cited violation of Technical Specification (TS) 3.0.4 was identified for operators changing Unit 2 modes, from Mode 3 (Hot Shutdown) to Mode 2 (Startup). The mode change was made without all the required TS channel check surveillances being met within their specified frequency for instrumentation required to be operable in Mode 2. The finding had very low safety significance because the required channel checks were promptly performed after the identification and no loss of function occurred.

Inspection Report# : [2000004\(pdf\)](#)

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### Mitigating Systems



**Significance:** Sep 22, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**ERROR IN ANALYSIS OF RHR SYSTEM RESULTS IN FAILURE TO MEET APPENDIX R, CRITERION III.L.2.B**

The inspectors identified a non-cited violation for failure to meet 10 CFR 50, Appendix R, Criterion III.L.2.b requirements for alternative shutdown involving loss of the residual heat removal (RHR) function following certain postulated fires. The RHR function would have been lost due to inadvertent closure of the RHR pump minimum flow control valves due to fire damage to control cables, because the cables were not protected as required by 10 CFR 50, Appendix R. This finding was of very low safety significance because the initiating event was of relatively low frequency and that fire suppression systems and diverse systems for core heat removal remained available.

Inspection Report# : [2001003\(pdf\)](#)

**Significance:** SL-IV Sep 22, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

**FAILURE TO MEET 10 CFR 50.59 REQUIREMENTS.**

The inspectors identified a Severity Level IV non-cited violation for failure to meet 10 CFR 50.59 requirements, in that the safety evaluation conducted as required by 10 CFR 50.59 did not adequately provide the basis that a procedure change would not result in more than a minimal increase in the likelihood of occurrence of a malfunction of equipment important to safety previously evaluated in the Updated Final Safety Analysis Report. The finding's underlying technical issue was evaluated and determined to be of very low safety significance because in the worst case scenarios only a single train of equipment would malfunction because of, for example, a severe pipe failure, and the Technical Specifications would govern.

Inspection Report# : [2001003\(pdf\)](#)



**Significance:** Sep 22, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

**INADEQUATE FIRE DAMPER MAINTENANCE PROCEDURE RESULTS IN INOPERABLE EMERGENCY DIESEL GENERATORS**

The licensee identified a non-cited violation for failure to meet Technical Specification 5.4.1.a (Procedures). A fire protection procedure did not contain adequate checks for diesel generator damper chain alignment and blow off clip engagement in accordance with vendor recommendations necessary to assure proper operation including preventing inadvertent actuation.

Inspection Report# : [2001003\(pdf\)](#)



**Significance:** Mar 24, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

#### **INADEQUATE EVALUATION OF RHR SYSTEM FLOW RATE TEST RESULTS**

A non-cited violation of 10 CFR Part 50, Appendix B, Criterion XI (Test Control) was identified for not properly evaluating quarterly residual heat removal (RHR) system flow rate test results on Units 2 and 3. Flow rate tests performed since the implementation of temporary alterations on July 27, 2000, which maintained the systems' minimum flow bypass valves in the open position during normal operations, were not properly evaluated to ensure that Technical Specification (TS) required system parameters would be satisfied with the systems in service. This finding was considered to be of very low safety significance because subsequent evaluation of the test data showed that TS surveillance requirements were satisfied and no loss of safety function of the RHR system occurred.

Inspection Report# : [2000006\(pdf\)](#)

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## Barrier Integrity



**Significance:** Dec 22, 2001

Identified By: NRC

Item Type: NCV NonCited Violation

#### **FAILURE TO OBTAIN REQUIRED PERMITS TO BLOCK OPEN RESTRICTED DOORS**

The inspectors identified a non-cited violation for failure to meet Technical Specification 5.4.1.a (Procedures). A barrier door for the control room pressure envelope was not maintained closed. The door was blocked open for over three hours, resulting in both trains of the control room emergency ventilation system being out-of-service in excess of the allowed TS outage time. The finding affected the integrity of the control room envelope, but was considered to be of very low safety significance because it represented a degradation of the radiological barrier function provided for the control room only.

Inspection Report# : [2001004\(pdf\)](#)



**Significance:** Jun 23, 2001

Identified By: Licensee

Item Type: NCV NonCited Violation

#### **MISSED SURVEILLANCE ON RECORDING & VERIFYING RECIRCULATION LOOP BALANCED FLOW**

The licensee identified a non-cited violation of Technical Specification Surveillance Requirement (TSSR) 3.4.1.1 which requires that flow balance between the reactor recirculation loops be determined daily beginning 24 hours after the loops are placed in service. This surveillance supports TS 3.4.1, which requires that two recirculation loops in service to have matched flows when in Mode 1 or 2. On April 27, 2001, approximately five days after the recirculation loops were placed in service, the licensee identified that TSSR 3.4.1.1 had been missed. The TSSR was then completed with satisfactory results. As a consequence Unit 2 had been inadvertently taken from Mode 2 to Mode 1 without having met the surveillance requirements prerequisite to proceeding to Mode 1 as required by TSSR 3.0.4.

Inspection Report# : [2001002\(pdf\)](#)



**Significance:** Jun 24, 2000

Identified By: NRC

Item Type: NCV NonCited Violation

#### **FAILURE TO ESTABLISH ADEQUATE CONTROL ROOM VENTILATION COMPENSATORY MEASURES**

A non-cited violation of Technical Specification 5.4.1 was identified for an inadequate procedure utilized for the compensatory measures taken upon loss of both Unit 2 shutdown board room coolers which required actions that would cause a loss of function of the control room emergency ventilation (CREV) system and could degrade the radiation barrier designed to protect the control room operators during a design basis accident. The finding had very low safety significance because it represented a degradation of the radiological barrier function provided for the control room only. Modified compensatory actions to close certain dampers would result in the CREV system remaining operable.

Inspection Report# : [2000003\(pdf\)](#)

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## Emergency Preparedness

## Occupational Radiation Safety

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## Public Radiation Safety

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## Physical Protection

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## Miscellaneous

**Significance: N/A** Dec 21, 2001

Identified By: NRC

Item Type: FIN Finding

### IDENTIFICATION AND RESOLUTION OF PROBLEMS

The licensee was effective at identifying problems and placing them into the corrective action program. The licensee's effectiveness at problem identification was evident by the relatively few deficiencies identified by external organizations, including the NRC, that had not been previously identified by the licensee. Corrective actions were generally implemented in a timely manner and effective in correcting the equipment deficiencies. Audits and assessments were found to be thorough and self-critical. Findings and problems identified by the audits and assessments were consistent with the inspectors' observations. The use of problem evaluation reports (PERs) to identify lower threshold problems (level "D" PERs) and place them into the trending program was considered generally adequate to monitor problems before they resulted in a more significant one. However the inspectors found instances where low level personnel contamination events (PCEs) were not being reported via the corrective action program (i.e., level D PER) for trending. The inspection did not identify significant differences between the licensee's assessment of thier overall condition of the corrective action program and the NRC program assessment. A safety conscious work environment was evident.

Inspection Report# : [2001007\(pdf\)](#)

**Significance: SL-II** Jun 23, 2001

Identified By: NRC

Item Type: VIO Violation

### EMPLOYEE PROTECTED ACTIVITY

On February 7, 2000, a Severity Level II violation with civil penalty was issued to the licensee. The violation was not site-specific and involved employment discrimination contrary to the requirements of 10 CFR 50.7, "Employee Protection," in that the licensee did not select a former employee to a competitive position in the corporate chemistry organization in 1996, due, at least in part, to his engagement in protected activities. On January 22, 2001, the licensee denied the violation and on May 4, an Order was issued sustaining the violation and imposing the civil penalty. On June 1, TVA requested an enforcement hearing on the Order.

Inspection Report# : [2001002\(pdf\)](#)

**Significance: N/A** Jan 26, 2001

Identified By: NRC

Item Type: FIN Finding

### IDENTIFICATION AND RESOLUTION OF PROBLEMS

The licensee was effective at identifying problems and placing them into the corrective action program. The licensee's effectiveness at problem identification was evident by the relatively few deficiencies identified by external organizations, including the NRC, that had not been previously identified by the licensee. The licensee appropriately evaluated individual problems based on risk significance when establishing schedules for implementing corrective actions. Corrective actions were generally implemented in a timely manner. Findings and problems identified by licensee audits and assessments were consistent with the inspectors' observations. A safety conscious work environment was evident.

Inspection Report# : [2000007\(pdf\)](#)

**Significance: SL-III** Jun 24, 2000

Identified By: NRC

Item Type: VIO Violation

### FAILURE TO IMPLEMENT MEASURING AND TEST EQUIPMENT PROCEDURES

An apparent violation of Technical Specification (TS) 5.4.1 was identified for apparent deliberate failure to implement measuring and test equipment (M&TE) control procedures which resulted in approximately 500 nonconformance evaluations either not being issued or completed for M&TE which had been identified as out-of-tolerance or otherwise meeting the criteria for evaluation. [A Seveity Leve III Violation was issued in a Notice of Violation enclosed in an NRC letter to the licensee, dated October 27, 2000, for the failure to adhere to the licensee's procedures as required by TS 5.4.1, related to out-of-tolerance M&TE.]

Inspection Report# : [2001004\(pdf\)](#)

Inspection Report# : [2000003\(pdf\)](#)