



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30303

Report Nos.: 50-259/84-33, 50-260/84-33, and 50-296/84-33

Licensee: Tennessee Valley Authority  
500A Chestnut Street  
Chattanooga, TN 37401

Docket Nos.: 50-259, 50-260 and 50-296 License Nos.: DPR-33, DPR-52,  
and DPR-68

Facility Name: Browns Ferry 1, 2, and 3

Inspection Conducted: July 28 - August 25, 1984

Inspectors: <u><i>Ross Butcher for</i></u>	<u>9/7/84</u>
G. L. Paulk, Senior Resident Inspector	Date Signed
<u><i>Ross Butcher for</i></u>	<u>9/7/84</u>
C. A. Patterson, Resident Inspector	Date Signed
Approved by: <u><i>Ross Butcher for</i></u>	<u>9/7/84</u>
F. S. Cantrell, Section Chief	Date Signed
Division of Reactor Projects	

SUMMARY

Scope: This routine inspection involved 60 resident inspector-hours in the areas of operational safety, maintenance observation, and reportable occurrences.

Results: Violations - One violation of TS 6.3.A for failure to maintain locked valves.

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## REPORT DETAILS

### 1. Licensee Employees Contacted

J. A. Coffey, Site Director  
G. T. Jones, Plant Manager  
J. E. Swindell, Superintendent - Operations/Engineering  
J. R. Pittman, Superintendent - Maintenance  
J. H. Rinne, Modifications Manager  
L. W. Jones, Quality Engineering Supervisor  
D. C. Mims, Engineering Group Supervisor  
Ray Munkapillar, Operations Group Supervisor  
C. G. Wages, Mechanical Maintenance Supervisor  
T. D. Cosby, Electrical Maintenance Supervisor  
R. E. Burns, Instrument Maintenance Supervisor  
A. W. Sorrell, Health Physics Supervisor  
R. E. Jackson, Chief Public Safety  
Ray Cole, QA Site Representative  
T. L. Chinn, Technical Services Manager  
T. F. Ziegler, Site Services Manager  
J. R. Clark, Chemical Unit Supervisor  
B. C. Morris, Plant Compliance Supervisor  
A. L. Burnette, Assistant Operations Group Supervisor  
R. R. Smallwood, Assistant Operations Group Supervisor  
T. W. Jordan, Assistant Operations Group Supervisor  
S. R. Maehr, Planning/Scheduling Supervisor  
G. R. Hall, Design Services Manager  
W. C. Thomison, Engineering Section Supervisor  
A. L. Clement, Radwaste Group Controller

Other licensee employees contacted included licensed reactor operators, senior reactor operators, auxiliary operators, craftsmen, technicians, public safety officers, quality assurance, quality control and engineering personnel.

### 2. Exit Interview (30703)

The inspection scope and findings were summarized on August 30, 1984, with the Plant Manager and/or Assistant Plant Managers and other members of his staff.

The licensee acknowledged the findings and took no exceptions.

### 3. Licensee Action on Previous Enforcement Matters (92702)

- a. (Open) Violation (259/260/296/84-23-02) Diesel Generator Maintenance Requirements - A review of the licensee response of August 16, 1984, to this violation and management control concerns was found to be inadequate in addressing the root cause. Further discussion was held with

the licensee related to this item as noted below. The licensee was informed that a minor programmatic breakdown of vendor manual control and implementation is apparent as indicated by the violation. The manufacturer's recommended maintenance practices referenced in the plant procedures were of the incorrect revision or in some cases not available for review on site although required by plant specifications. This apparent problem seems to be generic in nature as indicated by the licensee during the daily Resident-Management Meetings. Consequently, the licensee's reply to the management control concerns should describe, in particular, those actions taken or planned to improve your management control systems with respect to vendor manual controls.

4. Unresolved Items\* (92701)

There were no new unresolved items.

5. Operational Safety (71707, 71710)

The inspectors were kept informed on a daily basis of the overall plant status and any significant safety matters related to plant operations. Daily discussions were held each morning with plant management and various members of the plant operating staff.

The inspectors made frequent visits to the control rooms such that each was visited as least daily when an inspector was on site. Observations included instrument readings, setpoints, and recordings; status of operating systems; status of alignments of emergency standby systems; onsite and offsite emergency power sources available for automatic operation; purpose of temporary tags on equipment controls and switches; annunciator alarm status; adherence to procedures; adherence to limiting conditions for operations; nuclear instruments operable; temporary alterations in effect; daily journals and logs; stack monitor recorder traces; and control room manning. This inspection activity also included numerous informal discussions with operators and their supervisors.

General plant tours were conducted on at least a weekly basis. Portions of the turbine building, each reactor building and outside areas were visited. Observations included valve positions and system alignment; snubber and hanger conditions; proper power supply and breaker alignments; radiation area controls; tag controls on equipment; vital area controls; personnel badging, personnel search and escort; and vehicle search and escort. Informal discussions were held with selected plant personnel in their functional areas during these tours. Weekly verifications of system status which included major flow path valve alignment, instrument alignment, and switch position alignments were performed on the core spray and residual heat removal systems.

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\*An Unresolved Item is a matter about which more information is required to determine whether it is acceptable or may involve a violation or deviation.

A complete walkdown of the accessible portions of the core spray system was conducted to verify system operability. Typical of the items checked during the walkdown were: lineup procedure match plant drawings and the as-built configuration, hangers and supports operable, housekeeping adequate, electrical panel interior conditions, calibration dates appropriate, system instrumentation on-line, valve position alignment correct, valves locked as appropriate and system indicators functioning properly.

Unit 3 continued in a refuel outage this period. Fuel loading commenced on Unit 3 on August 19, 1984. Unit 2 operated at power during this period. Unit 1 was shutdown on August 21, 1984, due to meeting the 7-day L.C.O. Technical Specification limitation on core spray loop 1 inoperability. The core spray event of August 15, 1984, will be discussed further in IE Report 84-34.

On August 13, 1984, the licensee observed that the high mass lighting did not energize at sunset as required. A quick search by the licensee revealed that the power supply switch was found in the "off" position. Lighting was restored within five minutes of being noticed off.

During a routine safety tour on July 31, 1984, the inspector noted Unit 2 isolation valve 74-33 to be unlocked. Locking of some valves is required by plant drawings and procedures. Plant management was notified and a followup check of safety-related systems indicated the following valves not locked as required.

#### Units 1 and 2 Unlocked Valves

2-67-602	RHR B seal heat exchanger throttling valve
1-74-722	Suppression pool drain
2-74-22	Heat exchanger C outlet
2-74-575A	Heat exchanger A shell drain
2-769	Condensate storage tank 4 outlet
2-770	Condensate storage tank 5 outlet
2-766	Condensate storage tank 4 & 5 tie into Unit 3
1-32-305B	Air compressor B vent bypass to air compressor B suction
1-32-2520	Isolation valve to containment X-50

The Plant Manager was notified that this was a violation of Technical Specification 6.3.A (259/260/84-33-01).

## 6. Maintenance Observation (62703)

Plant maintenance activities of selected safety-related systems and components were observed/reviewed to ascertain that they were conducted in accordance with requirements. The following items were considered during this review: the limiting conditions for operations were met; activities were accomplished using approved procedures; functional testing and/or calibrations were performed prior to returning components or system to service; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; proper tagout clearance procedures were adhered to; Technical Specification adherence; and radiological controls were implemented as required.

Maintenance requests were reviewed to determine status of outstanding jobs and to assure that priority was assigned to safety-related equipment maintenance which might affect plant safety. The inspectors observed the below listed maintenance activities during this report period:

- a. Unit 1 Recirculation Pump Motor generator set open coil maintenance.
- b. Core spray system inspections Units 1/2.
- c. Safety system isolation check valve indicating circuit testing - all units.
- d. Diesel generator valve maintenance.

There were no violations or deviations in this area.

## 7. Surveillance Testing Observation (61726)

The inspectors observed and/or reviewed the below listed surveillance procedures. The inspection consisted of a review of the procedure for technical adequacy, conformance to Technical Specifications, verification of test instrument calibration, observation on the conduct of the test, removal from service and return to service of the system, a review of test data, limiting condition for operation met, testing accomplished by qualified personnel, and that the surveillance was completed at the required frequency.

- a. S.I. 4.2.J.3                      Seismic Instrumentation
- b. S.I. 4.7.A.2.g-3                Local Leak Rate Test 75-26 - Unit 1
- c. S.I. 2                                Operator Daily Logs
- d. S.I. 3.2.2                         Testable Check Valve Cycling

There were no violations or deviations identified in the above area.

## 8. Reportable Occurrences (90712, 92700)

The below listed licensee event reports (LERs) were reviewed to determine if the information provided met NRC requirements. The determination included: adequacy of event description, verification of compliance with Technical Specifications and regulatory requirements, corrective action taken, existence of potential generic problems, reporting requirements satisfied, and the relative safety significance of each event. Additional in-plant reviews and discussion with plant personnel, as appropriate, were conducted for those reports indicated by an asterisk. The following licensee event reports are closed:

<u>LER No.</u>	<u>Date</u>	<u>Event</u>
*296/80-32R1	8-25-80	RCIC speed feedback magnetic pickup connector failure
296/79-05R2	5-06-79	2B RHR heat exchanger RHRSW secured inadvertently

A review of LER 296/84-06R1 (jet pump nozzle cracking) indicated an incorrect publication ("INSIDE NRC") reference in the LER abstract. Also, a review of LER 259/84-21R1 (HPCI/ADS cable separation) incorrectly reported that only Units 1 and 2 were affected by this event. Inspection revealed all three units were affected.

These items require supplemental responses and will be tracked as an open item (259/84-33-02).