



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

Report Nos.: 50-259/84-32, 50-260/84-32, and 50-296/84-32

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: August 20-23, 1984

Inspectors: McKenzie Thomas 9-25-84
 for S. Burris Date Signed

McKenzie Thomas 9-25-84
 M. Thomas Date Signed

Approved by: Frank Jape 9/25/84
 F. Jape, Section Chief Date Signed
 Engineering Branch
 Division of Reactor Safety

SUMMARY

Scope: This routine, unannounced inspection entailed 52 inspector-hours on site in the areas of followup on previous enforcement items and plant tour.

Results: No violations or deviations were identified.

8411130539 840928
 PDR ADOCK 05000259
 Q PDR

REPORT DETAILS

1. Licensee Employees Contacted

- *G. T. Jones, Plant Manager
- *J. E. Swindell, Superintendent - Operations/Engineering
- *R. E. Burns, Instrument Maintenance Supervisor
- *K. E. Montgomery, Instrument Maintenance Engineer
- *B. J. Irby, Instrument Maintenance Engineer
- *P. Ebersole, Compliance Staff
- *D. C. Mims, Engineering Group Supervisor

Other licensee employees contacted included engineers, technicians, security force members and office personnel.

NRC Resident Inspector

- *G. L. Paulk, Senior Resident Inspector

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on August 23, 1984, with those persons indicated in paragraph 1 above. The licensee acknowledged all identified items listed below with no significant comment.

- IFI 259, 260, 296/84-32-01, Scram Discharge Volume Tank Level Indication Problems in References for Detectors - paragraph 5(a).
- IFI 259, 260, 296/84-32-02, Torus Level Instrumentation Problems Between Separate Level Detectors - paragraph 5(b).
- IFI 259, 260, 296/84-32-03, Drywell Pressure Transmitter and Control Room Indication Are Displayed in Different Units - paragraph 6.
- IFI 259, 260, 296/84-32-04, Atmospheric Changes for the Drywell High Pressure Scram Feature - paragraph 6.

3. Licensee Action on Previous Enforcement Matters

(Open) Unresolved Item 50-259, 260, 296/82-41-01, concerning the licensee's method of using instrument calibration history data rather than the manufacturer's specifications for instrument accuracy in determining instrument setpoints in the surveillance program. The inspectors discussed this item with licensee personnel who stated that a scaling and setpoint document has been developed for each unit for use during instrument calibration and setpoint determination. The document applies to permanent

plant instrumentation after January 1, 1983. Licensee personnel stated that implementation of the document is in process and all plant instrumentation has not yet been included. During review of the surveillance program and related activities, the inspectors raised additional questions on setpoint determination (discussed in paragraphs 5 and 6 of this report). This item will remain open.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Procedures - Units 1, 2, and 3 (42700)

The inspectors reviewed the licensee's instrumentation program as it pertains to adequacy of instrument surveillance procedures, conduct of personnel performing surveillance instructions, status of instrumentation modifications on selected systems, identification and resolution of instrumentation problems, and the licensee's method for determining instrumentation setpoints. The following surveillance instructions (SIs) were reviewed:

S.I. 4.1.A-8	Reactor Protection System High Water Level in Scram Discharge Tank
S.I. 4.2.A-6	Primary Containment and Reactor Building Isolation Instrumentation - Low Pressure Main Steam Line
S.I. 4.2.B-4	Drywell High Pressure (Pressure Switch 64-58E-H)
S.I. 4.2.B-5	Drywell High Pressure (Pressure Switch 64-58A-D)
S.I. 4.2.F-10	Primary Containment Drywell Pressure
S.I. 3.7.A-1	Suppression Chamber Water Level - Narrow Range
S.I. 4.2.F-20	Suppression Chamber Water Level - Wide Range

During the review several questions were raised. These are discussed below and will be reviewed during subsequent inspections.

- a. The inspectors witnessed portions of surveillance instruction 4.1.A-8 to ensure that a current procedure was in use by plant personnel performing the surveillance, the minimum number of required personnel was available, test prerequisites were met, special test equipment was calibrated and was used as required, data collected were recorded by proper personnel and unusual data, trends, sudden changes were identified and proper corrective action initiated. The inspectors noted that surveillance instruction requirements were in effect and applicable plant procedures and safety requirements were being observed. The inspectors verified that health physics personnel were present at the job site to monitor radiation levels. In addition,

personnel required to enter the radiation area were properly clothed and followed health physics requirements.

While reviewing portions of this surveillance, the inspectors identified a concern regarding the reference point used to determine water level in the discharge tank. The inspectors questioned if the reference point was based on the survey marks located on the adjacent building structure, or were based on points measured from the floor. Plant personnel conducting the test stated that they were using the survey marks as required by the surveillance instruction. While discussing this problem with plant management, they informed the inspectors that this item was under control of an engineering change notice to resurvey and establish new survey marks. This has been completed on Units 1 and 3 and would soon be complete on Unit 2. The inspectors identified this item for followup during future inspections as IFI 84-32-01, Scram Discharge Volume Tank Level Indication Problems in References for Detectors.

- b. During the review of the licensee's method of using instrument calibration techniques, the inspectors raised a concern with regard to the torus level instruments. The problem appeared to be between the different level detectors themselves, in that the level between the detectors sometimes was greater than the maximum allowed in accordance with Technical Specifications. In discussing this concern with the instrumentation supervisor, the inspectors were informed that this item had been identified as a potential problem in that changes were being initiated under several engineering change notices and field change requests to correct these problems. The problems stem from the fact that the piping for the level detectors was not correct when initially installed, due to the height differences for the reference legs. The changes to the piping for the level detectors have been done for Unit 1 narrow range, and are in process for Unit 3 narrow range level detectors, and will be done during a future outage for the Unit 2 narrow range detectors. This item was identified for followup during future inspections as IFI 84-32-02, Torus Level Instrumentation Problems Between Separate Level Detectors.

6. Independent Inspection Effort - Units 1, 2, and 3 (92706)

During the plant tour, the inspectors noted that one of the drywell pressure transmitters and the control room indication in the control room did not agree with each other. The drywell pressure transmitter sensed and transmitted a signal in pounds per square inch gauge (psig), and the control room indicator read out in pounds per square inch absolute (psia). The inspectors identified this problem to the instrumentation supervisor who stated that he had identified this problem and had turned the problem over to the Engineering Group for evaluation. The cognizant engineer explained that the pressure transmitter had been replaced with one that reads out in psig. The control room indicator had not been changed.

At this time, this discrepancy is still under evaluation by the Engineering Group at Browns Ferry and is identified in this report as an inspector followup item, IFI 84-32-03, Drywell Pressure Transmitter and Control Room Indication Are Displayed in Different Units.

During routine observation, the inspectors questioned the method for compensating the drywell pressure indications for atmospheric changes in pressure. This was identified due to the fact that several other licensees had identified a potential problem with the drywell pressure scram sensing device not being compensated for with regard to atmospheric changes that occur. When the inspectors questioned licensee personnel at Browns Ferry, the personnel stated that they were not aware if atmospheric changes had been taken into account when the design calculations had been reviewed and accepted for the Browns Ferry facility. Misleading information could be provided should the drywell pressure indication system not indicate actual inplant conditions. The inspectors identified this item for followup during future inspections as IFI 84-32-04, Atmospheric Changes for the Drywell High Pressure Scram Feature.