



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

Report Nos.: 50-259/84-11, 50-260/84-11, and 50-296/84-11

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 at Browns Ferry site near Athens, Alabama

Inspector: E. H. Girard 4/24/84
E. H. Girard Date Signed

Approved by: J. J. Blake 4/24/84
J. J. Blake, Section Chief Date Signed
Engineering Branch
Division of Reactor Safety

SUMMARY

Inspection on March 26-29, 1984

Areas Inspected

This routine, unannounced inspection involved 28 inspector-hours on site in the areas of previous enforcement matters, IE Bulletins, and licensee event reports.

Results

Of the three areas inspected, no violations or deviations were identified in two areas; one apparent violation was found in one area (Violation - Reactor Vessel Support Skirt Weld Examinations - paragraph 3).

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *J. E. Swindell, Assistant Plant Superintendent
- *J. R. Pittman, Assistant Plant Superintendent
- *T. L. Chinn, Compliance Staff Supervisor
- *C. J. Rozear, Compliance Engineer
 - O. L. Butler, Level III NDE Examiner
 - T. B. Schreeder, Level III NDE Examiner
- *R. Latimer, ISI Supervisor
- *B. R. McPherson, Lead Mechanical Engineer
- *C. T. Goodson, ISI Coordinator

NRC Resident Inspectors

- G. L. Paulk, Senior Resident Inspector
- *C. A. Patterson, Resident Inspector

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on March 29, 1984, with those persons indicated in paragraph 1 above. The inspection findings listed below were discussed in detail. The violation below was discussed further with the licensee's Level III NDE Examiner in a telephone conversation on March 30, 1984. No dissenting comments were received.

Violation 259, 260, 296/84-11-01, Reactor Vessel Support Skirt Examination, paragraph 3.

3. Licensee Action on Previous Enforcement Matters

(Closed) Unresolved Item (259/81-13-18): Base Metal Adjacent to Support Weld Does Not Appear to Have Been Adequately Examined. This item identified an inspector's concern that the licensee's procedure for ultrasonic examination of the reactor vessel support skirt weld was inadequate. The applicable code for inservice inspection ultrasonic examination of the support skirt welds, as specified by 10 CFR 50.55a, is ASME Section XI (74S75). This code requires that the examination area include the weld to the vessel and the base metal beneath the weld zone and along the support skirt for a distance of two support thicknesses. The approved procedure for this examination that was reviewed during NRC inspection 81-13 did not include requirements for examination of two plate thicknesses along the support skirt.

During the current inspection, the inspector reviewed records of the examination of support skirt welds for all three units and questioned a Level III and a Level II licensee examiner as to how they would perform the examination of the support skirt weld for Unit 1, as described in the procedure referenced in the 1983 Unit 1 examination record. The Level II had previously used the referenced procedure in examinations conducted for Unit 2 in 1982 and Unit 3 in 1981. Both individuals described examinations that would not meet code requirements. The scanning motion which they described perpendicular to the support skirt weld would be directed toward the weld and would proceed into the weld, starting from a transducer position distance of two base metal thicknesses below the weld. Such scanning would not provide an adequate examination coverage for near surface (transducer side) base metal indications and would only examine 1/2 the required base metal volume at a distance of one to two base metal (support skirt) thicknesses below the weld, thereby omitting about 1/4 of the skirt material required to be examined. Based on the examiner's interpretation of the procedural requirements, the 1981 Unit 3 and 1983 Unit 1 examinations would not have provided adequate base metal coverage to comply with the code. The records for the 1982 Unit 2 examination describes scanning that would not provide adequate near surface examination of the weld. Further, the Unit 2 records indicate a base metal and weld thickness of less than two inches. The calibration block (identified BF-12-C) for this Unit 2 examination did not meet code requirements for examination of this thickness of material. The calibration block thickness was three inches; whereas, the maximum permitted by the code is the base material thickness of less than two inches. The block calibration hole size was 3/16 inch; whereas, the code specified 1/8 inch for the skirt metal thickness. Additionally, code examination requirements specify the use of transfer to compensate for differences between the calibration block and the material examined. The licensee's procedures do not specify the use of the transfer method and records do not indicate it was used.

The findings described above indicate the licensee's examinations were not in compliance with the applicable code specified in 10 CFR 50.55a. This noncompliance was identified to the licensee as Violation 259, 260, 296/84-11-01, Reactor Vessel Support Skirt Weld Examination.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Status of Inspection and Enforcement Bulletins (IEBs) (92703) - Units 1, 2, and 3

(Open) IEB 83-03: Check Valve Failures in Raw Cooling Water Systems of Diesel Generators

This IEB deals with generic aspects of multiple swing check valve failures identified in raw cooling water systems for diesel generators. The licensee's original response to this IEB, dated June 15, 1983, was reviewed

by Region II and determined to be inadequate, as described in NRC Report 259, 260, 296/83-32. The licensee has provided a revised response in letters dated November 7, 1983, and January 25, 1984. These latter submittals indicate a satisfactory approach to compliance with the actions requested by the IEB. The inspector noted that the valve list provided by the licensee in the responses appears to be incorrect. The licensee agreed, and indicated a revised list will be provided when they submit their findings for Unit 3 valves. The licensee findings for the Units 1 and 2 valves were submitted in the January 25 letter referred to above. This IEB will remain open pending Region II's receipt and review of the Unit 3 findings in a subsequent inspection.

6. Reportable Occurrences - Licensee Event Reports (LERs) (92700) - Units 1 and 2

- a. (Closed) LER (BFRO-50-259/82020 Revision 2): High Identified Drywell Leakage Because of a Cracked Test Connection Pipe on Reactor Water Cleanup Systems. The licensee's report was submitted to Region II in a letter dated September 27, 1982. The inspector reviewed the report for Technical Specification reporting requirements and entries of data in accordance with NUREG 0161. In addition, the inspector discussed the corrective action undertaken with the cognizant engineer and reviewed Trouble Reports 306605 and 326986 for documentation of corrections. The corrective actions stated in the report were implemented.
- b. (Closed) LER (BFRO-50-259/82056 Revision 1): Reactor Coolant Leakage From a Cracked 1-Inch Pipe Weld on an Instrument Sensing Line in the Drywell. The licensee's report was submitted to Region II in a letter dated November 2, 1982. The inspector reviewed the report for Technical Specification reporting requirements and entries of data in accordance with NUREG 0161. The inspector discussed the item with the licensee's compliance engineer and verified that the licensee's tracking system indicated that required actions had been completed.
- c. (Closed) LER (BFRO-50-260/81026 Revision 2): One ISI UT Exam Did Not Receive Evaluation Required. The licensee's report was submitted to Region II in a letter dated September 25, 1981. The inspector reviewed the report for Technical Specification reporting requirements and entries of data in accordance with NUREG 0161. In addition, the inspector discussed the item and the corrective action taken with responsible ISI personnel. The inspector was satisfied that the stated corrective actions had been completed and were appropriate.
- d. (Closed) LER (BFRO-50-259/83058): EECW Check Valve Installed Backwards. The licensee's report for this item was submitted to Region II in a letter dated November 3, 1983. The inspector reviewed the report for Technical Specification reporting requirements and entries of data in accordance with NUREG 0161. In addition, the inspector reviewed the corrective action taken and discussed it with responsible engineering personnel to verify that it had been completed and that it was appropriate.