



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303

Report Nos. 50-390/79-31 and 50-391/79-26

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

Facility Name: Watts Bar Nuclear Plant

Docket Nos. 50-390 and 50-391

License Nos. CPPR-91 and CPPR-92

Inspected at Watts Bar Site near Spring City, Tennessee and at
Licensee Offices in Chattanooga, Tennessee

Inspected by: E. H. Girard 8/21/79
E. H. Girard / Date Signed

Approved by: A. R. Herdt 8/21/79
A. R. Herdt, Section Chief, RC&ES Branch / Date Signed

SUMMARY

Inspected on July 24-27, 1979

Areas Inspected

This routine, unannounced inspection involved 28 inspector-hours onsite in the areas of open items, system for verification and maintenance of welder qualifications (Units 1 and 2), review of the inservice inspection program (Units 1 and 2), and review of preservice inspection data (Unit 1).

Results

Of the four areas inspected, no items of noncompliance or deviation were identified.

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DETAILS

1. Persons Contacted

Licensee Employees

- *T. B. Northern Jr., Project Manager -WBNP
- *S. Johnson, Assistant Construction Engineer - WBNP
- *H. C. Richardson, Construction Engineer - WBNP
- *R. L. Heatherly, Supervisor, QC & R Unit - WBNP
- *J. A. Morgan, Assistant Supervisor, Mechanical Engineering Unit - WBNP
 - T. E. Puckett, Mechanical Engineer - WBNP
 - L. C. Northard, Supervisor, Welding Engineering Unit - WBNP
 - K. R. Kincher, Weld Test Shop Supervisor - WBNP
 - D. Spangler, Mechanical Engineer - WBNP
- *B. Willis, QA Supervisor (Power Production) - WBNP
- **R. H. Daniels, Level III Examiner - Power Production
- **E. Crane, Mechanical Engineer - Power Production
- *T. L. Hale, Engineering Aide - Power Production
- *D. E. Harvey, Engineering Aide - Power Production
- ***S. W. Spencer, Quality Engineer, Quality Assurance and Audit Staff,
Office of Power

Other Organizations

A. L. Hogarth, Westinghouse NSD Site Manager, Watts Bar Site

- *Attended exit interview at Watts Bar Site
- **Attended exit interview at Power Plant Maintenance Branch Office in Chattanooga
- ***Attended exit interview at Office of Power in Chattanooga

2. Exit Interview

Preservice inspection records and inservice inspection program requirements in the area of audits were inspected at the licensee offices in Chattanooga, Tennessee on July 24, 1979. The scope and findings of that portion of the inspection were discussed there with licensee Power Plant Maintenance Branch and Office of Power personnel in exit meetings on that date. The remainder of the inspection was conducted at the Watts Bar Site and the scope and findings of the entire inspection were summarized at the site in a final exit meeting on July 27, 1979. Licensee personnel attending the exit meetings in Chattanooga and at the Watts Bar Site are identified in Paragraph 1.

3. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item (390/78-31-03): Some welds in the ice condenser lower support platform do not comply with the drawing. The inspector reviewed the licensee's deviation notice of 4/18/79 and his field deficiency report WAT-10083, and discussed these with the licensee. The inspector is satisfied with the disposition provided and considers this item closed.

(Closed) Deficiency (390/79-12-01): Welder qualification discrepancies. Tennessee Valley Authority's (TVA) letter of response dated June 1, 1979 has been reviewed and determined acceptable by Region II. The inspector held discussions with the Welding Engineering Unit (WEU) and the QC&R Unit Supervisors and examined the corrective actions as stated in the letter of response. The inspector concluded that TVA had determined the full extent of the subject noncompliance, performed the necessary survey and followup actions to correct the present conditions and developed the necessary corrective actions to preclude recurrence of similar circumstances. The corrective actions identified in the letter have been implemented.

(Closed) Unresolved Item 391/79-14-01: Apparent deviation or noncompliance with requirements for welding to the metal containment. The inspector has reviewed TVA's letter of 6/26/79 responding to questions posed in this area. The item has been discussed with the licensee's cognizant mechanical engineer and work in progress was inspected. The inspector is satisfied with the licensee's compliance.

(Closed) Unresolved Item (390/79-18-01): Location and identification of longitudinal welds for ISI. The inspector reviewed weld maps prepared by the licensee for the inservice inspection (ISI) program and inspected a portion of the Unit 1 Residual Heat Removal (RHR) System piping to verify that longitudinal welds were being identified for ISI. From his observations, the inspector is satisfied that the longitudinal welds are being satisfactorily identified. However, the inspector found a circumferential piping weld that was not identified. The unidentified weld lay adjacent to weld 1-74A-D047-6A. The weld should have appeared on engineering drawing E2879-ISO47. The licensee stated that the drawing will be revised to include the omitted weld. The missed weld is being identified as unresolved item 390/79-31-02, Engineering drawing does not accurately depict piping configuration. The significance of the missed weld will be examined further in a future inspection. Correction of the drawing will be verified.

4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve noncompliance or deviations. New unresolved items identified during this inspection are discussed in paragraphs 3 and 6.

5. Independent Inspection - System for Verification and Maintenance of Welder Qualifications (Units 1 and 2)

The inspector examined the record card and an original performance qualification record sheet for each of ten welders selected at random to determine compliance with requirements in the area of maintenance and verification of welder qualifications. The requirements in this area are specified by ASME Section IX, Section 5.1 of the TVA OEDC QA Manual (Rev. 10), and TVA Process Specification 1.M.2.2(a) (6/29/78).

Within the areas inspected, no items of noncompliance or deviations were identified.

6. Inservice Inspection - Review of Program (Units 1 and 2)

The inspector examined inservice inspection program procedures and other documents to assure control and accomplishment of audits and generation and maintenance of nondestructive examination records in accordance with FSAR commitments.

Audits of ISI are the responsibility of the Office of Power, Quality Assurance and Audit Staff. The inspector reviewed the audit procedures in QAAS-QAP-3.1 (Rev. 4) of the Quality Assurance and Audits Staff Procedures Manual for requirements pertaining to checklists, scope and purpose of audits, schedule, audit criteria, review and assessments, corrective action and followup, documentation of audit results and qualifications and responsibilities of auditors. In addition, the inspector examined copies of the current audit schedule report OP QAA-78-SP-13 (10/30-11/1/78) and audit checklist SP-78-13.

Generation of ISI examination records is the responsibility of the Power Production Power Plant Maintenance Branch and Maintenance of the records is the responsibility of Watts Bar Power Production plant personnel. The inspector examined Part III, Section 4.1 (5/25/77) of the Operational Quality Assurance Manual, Section WB 3.2.1 (10/8/78) of the WBNP Standard Practice Manual, and Surveillance Instruction SI-4.4.10.1 (Rev. 7) for requirements pertaining to records generation, approval, custody, maintenance responsibilities, and storage controls. The inspector found that the Operational QA Manual (Part III, Section 4.1, Subsection 1) required that records be maintained at the plant unless otherwise specified and (in Subsection 3.1) that active QA records be promptly stored in one hour fire rated cabinets. WB 3.2.1 of the Standard Practice Manual specified that all active QA records be stored in one hour fire rated cabinets unless duplicate records are stored at another location. The ISI records at the Watts Bar plant were not stored in a one hour fire rated cabinet. The inspector questioned the cognizant Power Production QA Supervisor on the storage of ISI records and was informed that fire rated cabinet storage was not being implemented because the option of duplicate record storage at another location (TVA Central Offices) was being used. The inspector replied to this expressing his concern that the QA Manual did not clearly permit this (although the standard practice did) and questioned whether the other storage location was aware of and providing for their responsibilities for maintenance and storage of the records for the anticipated 40 year plant life. The QA Manager stated that he would have the Operational QA Manual revised to clarify the storage requirement and would check to assure that TVA Central Offices were aware of their full responsibilities with regard to the ISI record maintenance and storage. As the ISI program has only recently been initiated and there are multiple copies of the records, the inspector has no immediate concern that any may be lost. However, because of the importance of records and the necessity that they be stored and maintained for the full plant life, this area will be examined further and is being identified for record as unresolved item 390/79-31-01 and 391/79-26-01, Requirements for storage of ISI records are unclear.

Within the area inspected, no items of noncompliance or deviations were identified.

7. Preservice Inspection - Data Review and Evaluation (Unit 1)

The inspector reviewed records of preservice inspection (PSI) for compliance with ASME Section XI (74S75), the SAR, and the licensee's PSI Program. The records for the areas identified below were reviewed to verify that they contained or referenced examination results and data sheets, examination equipment data, calibration data sheets, examination evaluations, extent of examinations, deviations from program requirements and disposition of findings:

- a. ASME Section XI Item B1.4, Category B-D (reactor vessel): - nozzle weld N-14 - nozzle weld 18
- b. ASME Section XI Item B4.5, Category B-J (main loop piping):
 - pipe to elbow weld 1-4
 - pipe to elbow weld 3-4

The records for the following reactor pressure vessel welds were reviewed for compliance with requirements for method, extent and technique of examination; acceptance criteria; recording, evaluation and disposition of findings; and to verify that the method used was sufficient to determine the full extent of indications or acceptance:

- a. Lower shell weld W03-04 (542.49" length)
- b. Nozzle weld N-18 (163.87" length)
- c. Upper shell to flange weld W06-07 (536.77" length)

The records for the following welds were reviewed to verify that examination unit calibrations showed no major deviations between initial and final calibrations, that examination data was properly recorded, that a Level II or III examiner had evaluated the data and that the evaluation complies with the procedure:

- a. Nozzle to safe end (Reactor Coolant System)
Weld N-15 (28" Dia. pipe)
- b. Pipe to elbow (Reactor Coolant System)
Weld 4-4 (29" Dia. pipe)

Within the area inspected, no deviations or items of noncompliance were identified.