



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

Report Nos. 50-390/79-12 and 50-391/79-09

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

Facility Name: Watts Bar Nuclear Plant, Units 1 and 2

Docket Nos. 50-390 and 50-391

License Nos. CPPR-91 and CPPR-92

Inspection at Watts Bar Dam, Tennessee

Inspector: P. K. Van Doorn 4/4/79
P. K. Van Doorn Date Signed

Accompanying Personnel: W. P. Kleinsorge (Training)
M. Thomas (Training)

Approved by: T. E. Conlon 4/11/79
T. E. Conlon, Section Chief, RCES Branch Date Signed

SUMMARY

Inspection on March 12 - 15, 1979

Areas Inspected

This routine unannounced inspection involved 75 inspector-hours onsite in the areas of safety related pipe welding; reactor coolant pressure boundary pipe welding; and preservice UT inspection.

Results

Of the three areas inspected, no apparent items of noncompliance or deviations were identified in two areas; one apparent item of noncompliance was found in one area (Deficiency - Welder qualification record discrepancies - paragraph 6).

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DETAILS

1. Persons Contacted

Licensee Employees

- *T. B. Northern, Jr., Project Manager
- *L. C. Northard, Welding Engineering Unit Supervisor
- *J. M. Lamb, Mechanical Engineering Unit Supervisor
- *H. C. Richardson, Construction Engineer
- *R. L. Heatherly, QC and R Unit Supervisor
- *A. W. Rogers, QA Supervisor
- *E. D. Crane, Power Plant Maintenance Branch

Other licensee employees contacted during this inspection included 8 construction craftsmen and 3 technicians.

Authorized Nuclear Inspector

- *C. Thompson

NRC Resident Inspector

- *B. J. Cochran

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on March 15, 1979 with those persons indicated in Paragraph 1 above. The noncompliance described in paragraph 6 was discussed in detail. TVA indicated that parameters for a welder qualification tests remain the same for each particular test and therefore paint over corrections should be allowed for this QA document. The inspector indicated that he would discuss this item with his supervision. TVA was informed via the resident inspector on March 16, 1979 that this item would be a deficiency.

3. Licensee Action on Previous Inspection Findings

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Independent Inspection Effort

- a. (Units 1 and 2) The inspector conducted a general inspection of the containments and auxiliary building to observe construction progress and construction activities such as welding, material handling and control, housekeeping and storage.
- b. (Unit 2) The inspector observed equipment setup and discussed equipment functions/operation for UT of the reactor vessel. Due to problems with mislocated guide pins and RF interference UT was not started during this inspection.
- c. (Unit 1) Preservice UT inspection is being performed in accordance with ASME Section XI (74 S 75). The inspector observed calibration activities for L-wave and 45' shear wave inspection of the support skirt to pressurizer weld number WP-17 and observed L-wave inspection of this weld to determine if Code and procedure requirements were being met. Areas reviewed included frequency range, signal linearity, extent of coverage, calibration methods, search unit size and angles, DAC curves, and method of demonstrating penetration.

No items of noncompliance or deviations were identified.

6. Safety Related Piping (Welding) - Observation of Work and Work Activities (Units 1 and 2)

The inspector observed field welding of safety-related piping outside the reactor coolant pressure boundary at various states of weld completion. The applicable Code for safety-related pipe welding is the ASME Boiler and Pressure Vessel Code Section III, 1971 Edition plus addenda through the summer of 1973.

- a. (Unit 1) The inspector examined weld joint fitup, prior to welding, to determine whether weld identification/location, joint preparation and alignment, evidence of QC verification meet applicable procedures. Weld joints # 1-063A-T021-2,4,5 and 6 were examined.
- b. (Unit 2) The inspector examined weld joints where the root pass (only) has been completed to determine; weld/welder identification, qualified welder/weld procedure, and physical appearance of weld. The following weld joints were examined:

Joint Number

2-063B-D194-01
2-074A-D023-05
2-074A-D023-03

- c. (Unit 2) The inspector examined weld joints of pipe to pipe/fitting (PPF) and pipe to components (PC) where welding was beyond the root pass to determine; weld/welder identification, qualified welder/weld procedure, use of specified weld material, proper interpass temperature and where applicable, pre-heat and post-weld heat treatment and physical appearance of weld (e.g. starts, stops, undercut and surface imperfections).

<u>Joint Number</u>	<u>Type</u>
2-015A-T016-15C1	PPF
2-072A-D035-01	PC

- d. The inspector also observed work areas for uncontrolled filler metal.
- e. As required by Criterion XVII of Appendix B to 10 CFR 50, and as implemented by the FSAR paragraph 17.1A.17, sufficient records shall be maintained to furnish evidence of activities affecting quality. TVA procedure WBNP-QCP-1.8, Rev. 2 - "Quality Assurance Records" requires QA records corrections to be made by marking through the errors with one line, inserting the correction and initialing and dating the correction.

Contrary to the above, on March 15, 1979 five welder qualification records contained paint over corrections without initials and date and one record did not contain an approval signature. TVA objected to this noncompliance based on the fact that parameters being corrected remained the same for a given welder qualification number. The TVA procedure makes no exceptions, however, and allowing improper corrections to be made in one area could lead to more significant items being improperly corrected. This is deficiency nos. 390/79-12-01 and 391/79-09-01.

No items of noncompliance or deviations, except as identified in paragraph 6.e., were identified.

7. Reactor Coolant Pressure Boundary Piping (Welding) - Observation of Work and Work Activities (Units 1 and 2)

The inspector observed field welding of reactor coolant pressure boundary piping at various stages of weld completion. The applicable Code for reactor coolant pressure boundary piping is delineated in paragraph 6.

- a. The inspector examined weld joints of pipe to pipe/fitting (PPF) where welding was beyond the root pass to determine; weld/welder identification, qualified welder/weld procedure, use of specified

weld material, proper interpass temperature and where applicable, pre-heat and post-weld heat treatment and physical appearance of weld (e.g. starts, stops, undercut and surface imperfections).

<u>Joint Number</u>	<u>Unit</u>
1-068A-T024-12	1
2-068A-D144-3C	2

- b. The inspector also observed work areas for uncontrolled filler material.

No items of noncompliance or deviations were identified.