



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

Report Nos.: 50-327/78-33 and 50-328/78-24

Docket Nos.: 50-327 and 50-328

License Nos.: CPPR-72 and CPPR-73

Categories: A3, A2

Licensee: Tennessee Valley Authority
Attn: Mr. N. B. Hughes
830 Power Building
Chattanooga, Tennessee 37401

Facility Name: Sequoyah Nuclear Plant, Units 1 and 2

Inspection at: Daisy, Tennessee

Inspection Conducted: October 25-27, 1978

Inspector: P. K. Van Doorn

Reviewed by: T. E. Conlon 11/10/78
T. E. Conlon, Chief Date
Engineering Support Section No. 2
Reactor Construction and Engineering
Support Branch

Inspection Summary

Inspection on October 25-27, 1978 (Report Nos. 50-327/78-33
and 50-328/78-24)

Areas Inspected: Routine, unannounced inspection of safety-related pipe welding (Units 1 and 2); safety-related structures welding (Unit 2); safety-related structures welding quality records (Unit 1); UT inspection of pipe welds (Unit 1). The inspection involved 23 inspector-hours on-site by one inspector.

Results: Of the four areas inspected, no apparent items of noncompliance or deviations were identified in three areas. One item of noncompliance (Deficiency-Failure to log welding rod oven temperatures) was identified in one area. (Details I, paragraph 6.b).

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DETAILS I

Prepared by

P. K. VanDoorn
P. K. VanDoorn, Metallurgical Engineer
Engineering Support Section No. 2
Reactor Construction and Engineering
Support Branch

11/16/78
Date

Dates of Inspection: October 25-27, 1978

Reviewed by

T. E. Conlon
T. E. Conlon, Chief
Engineering Support Section No. 2
Reactor Construction and Engineering
Support Branch

1/16/79
Date

1. Persons Contacted

a. Tennessee Valley Authority (TVA)

- *G. G. Stack, Project Manager, Construction
- *L. W. Jones, Welding Inspection Unit Supervisor
- *R. W. Farrell, QC Records Unit Supervisor
- *J. M. Munns, Construction QA Supervisor
- *E. C. Pendergrass, QC Records Unit
- *C. R. Brimer, Outage Director
- *D. E. Harvey, Outage Engineer
- W. C. Hatmaker, Welding Engineer
- R. S. Sawant, Civil Engineer

2. Licensee Actions on Previous Inspection Findings

(Open) Item of Noncompliance 50-327/78-14-01. Ineffective Corrective Action to Protect Equipment. This infraction concerned the fact that licensee's corrective actions had not been effective in preventing damage to small diameter pipe and preventing excessive contact of conducting electrical cables with safety-related components and piping. A final TVA report was received by NRC on July 19, 1978. A subsequent NRC inspection on September 1, 1978 revealed that corrective actions were not adequate regarding electrical cables. Additional actions have been implemented such as providing additional instructions for craft foreman and informing them that they are personally responsible for violations found in their area of supervision, providing management support for disciplinary action as necessary, and establishing a weekly QC inspection in addition to routine inspections for misplaced cables. The inspector reviewed the areas where the noncompliance was found and considers the actions taken to be effective. This item will remain open, however, until the additional actions taken are incorporated into the TVA response to the infraction.

3. Unresolved Items

No unresolved items were identified during this inspection.

4. Independent Inspection Effort

- a. (Units 1 and 2) The inspector conducted a walk-through inspection of the containments, auxiliary building, and storage areas to observe construction progress and construction activities such as welding, material handling and control, housekeeping and storage.
- b. (Unit 1) Ultrasonic testing (UT) of pipe welds was being performed for baseline inspection in accordance with the ASME Boiler and Pressure Vessel Code, Section XI, 1974 Edition plus addenda through the Summer of 1975. The inspector observed UT of four weld seams between pipe weld Nos. RCS-187, 188, 189 and 190. The inspector also reviewed portions of the PSI/ISI program and procedures, verified that inspector qualifications were available, and verified that equipment certifications and calibrations were available. The inspector was informed that some seam-welded fittings, weld joints, interferences and modifications were not shown on the weld schematic drawings being used because the schematics are generated from production drawings that may not reflect the latest as-built conditions due to normal paper work delays. However, the schematics were being marked up to reflect these omissions as the UT work progressed. This is an Inspector Follow-up Item No. 50-327/78-33-01 and will remain open until it can be shown that weld schematics will reflect actual as-built conditions.

No items of noncompliance or deviations were identified.

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

The applicable Code for safety-related pipe welding is the ANSI Standard B31.7, 1969 Edition and the 1970 addenda. The inspector observed welding to determine if work was being performed in accordance with the applicable requirements. Areas reviewed (as applicable) included weld identification/location, joint preparation and alignment, QC verification, use of specified welding procedure, pre-heat requirements, use of specified weld material, physical appearance of weld, qualification of welders and inspectors, and control of filler metal. Specific welds reviewed were as follows:

<u>Weld No.</u>	<u>Unit</u>	<u>Description</u>	<u>Stage of Completion</u>
1CC00510	1	10"x.365" Butt Weld	Fitup and Tack Welded
OER05637.010	1	1-1/2"x.145" Socket Weld	Intermediate Welding
2CX03030.010	2	2"x.343" Socket Weld	Intermediate Welding
2CX02969	2	2"x.343" Socket Weld	Fitup and Tack Welded
2CX02970	2	2"x.343" Socket Weld	Root and Intermediate Welding

No items of noncompliance or deviations were identified.

6. Safety-Related Structures (Welding)-Observation of Work
and Work Activities (Unit 2)

- a. The applicable code for main steam system restraint welding is AWS D1.1, Rev. 2-74. The inspector observed intermediate welding on specific welds to determine if requirements were being met. Areas reviewed included weld identification/location, use of applicable weld procedure, welder qualification, use of specified weld material, physical appearance of weld, periodic welding variable checks, welding material issue, weld material control, and presence of an adequate number of qualified QC personnel. Specific welds observed were as follows:

<u>Weld Drawing</u>	<u>Weld Number</u>
WMO-B149, R3	1
WMO-B214, R0	12, 13, 14
WMO-B254, R0	3, 4

- b. During inspection of the turbine building rod issue station on October 26, 1978, the inspector noted that only one rod oven temperature check was logged on October 20, 1978, October 21, 1978, and October 25, 1978. In addition, no oven temperature check had yet been logged on October 26, 1978 at the time of the inspection which was 1:50 p.m. Temperatures logged on either side of the missed entries were listed as satisfactory and a check on October 26, 1978 at 1:55 p.m. was satisfactory. This is in noncompliance with Criterion XVII of Appendix B to 10 CFR 50, as implemented by the FSAR, Paragraph 17.1A.17 and TVA procedure SNP-CP-No. W-1 which requires two entries in the

log for rod oven temperatures, one at the beginning and one at mid-point of each shift for which the station is being utilized. This noncompliance is categorized as a deficiency and is identified as Item Nos. 327/78-33-02 and 328/78-24-01.

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

7. Safety-Related Structures (Welding)-Review of Quality Records (Unit 1)

The applicable Code for main steam system restraint welding is delineated in paragraph 6. The inspector reviewed quality records for specific welds to determine if requirements were being met. Areas specifically reviewed were welding surveillance records and visual inspection records (II-75 forms). The II-75's reviewed were 12A-HRVWB46-N103-1, 12A-HRVWB47-N103-1, 12A-HRVWB48-N103-1, 12A-HRVWB37-N103-1, 12A-HRVWB36-2-N103-1, and 12-HRVWB29-N103-1. Each II-75 represents multiple welds.

No items of noncompliance or deviations were identified.

8. Exit Interview

The inspector met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection. The inspector summarized the scope and findings of the inspection. The inspector follow-up item described in paragraph 4.b and the noncompliance described in paragraph 6.b were discussed in detail. The licensee made no comments.