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

Report No.: 50-390/79-01 and 50-391/79-01

Licensee: Tennessee Valley Authority
830 Power Building
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, Tennessee

Inspector: R.M. Compton for 1/17/79
E. J. Vallish, Mechanical Engineer Date

Accompanying Personnel: None

Approved by: R M Compton for 1/17/79
J. C. Bryant, Section Chief, RCES Branch Date

Summary

Inspection on January 3-5, 1979 (Report Nos. 50-390/79-01 and 50-391/79-01)

Areas Inspected: This routine, unannounced inspection involved 19 inspector-hours on-site of reactor vessel installations, reactor vessel internals work and quality records, steam generator upper restraint snubber installation progress, storage of mechanical snubbers at entrance to buildings, the Unit 2 main steam isolation valve progress of installation and previously unresolved item 390/78-32-01.
Results: Of the seven areas inspected, no apparent items of noncompliance or deviations were identified in six areas; one apparent item of noncompliance was found in one area (infraction-failure to control field design changes, paragraph 8).

DETAILS

1. Persons Contacted

Licensee Employees

*T. B. Northern, Project Manager
*H. C. Richardson, Construction Engineer
*S. Johnson, Assistant Construction Engineer
*J. A. Morgan, Assistant ME Unit Supervisor
G. White, QC Engineer
M. Huff, Engineering Aide

Other Organizations

*B. J. Cochran, NRC Resident Inspector
R. Swat, Westinghouse Field Engineer

*Attended Exit Interview.

2. Licensee Action on Previous Inspection Findings

These actions were not reviewed during this inspection.

3. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involved noncompliance or deviations. New, unresolved items were not identified during this inspection.

4. Exit Interview

The inspection scope and findings were summarized on January 5, 1979 with those persons indicated by an asterisk in Paragraph 1, above. The resolution of the unresolved item 390/78-32-01 was to make it an item of noncompliance 390/79-01-01. This information was telephoned to the Resident Inspector on January 9, 1979; he relayed this information to the licensee. The licensee acknowledged these findings.

5. Independent Inspection Effort

This effort included the progress of installation of the Unit 2 main steam isolation valves, pipe restraints and the steam generator hydraulic snubbers, and the Units 1 and 2 outdoor storage of mechanical snubbers at the entrance to the buildings.

No items of noncompliance were identified.

6. Reactor Vessel Installation-Work Observation-Units 1 and 2

The installation and interiors of the reactor vessels were inspected. Both vessels are protected overhead. Fireproof wood or metal platforms and scaffolds were observed being used inside the vessels. No activity was observed in the Unit 1 vessel and only a wooden protective cover over the incore instrumentation stubs in the bottom of the vessel remain in that vessel. The upper flanged opening is covered with heavy fire-resistant, reinforced plastic sheeting. Machining of the clevis blocks inside the Unit 2 vessel was observed which was being supervised by a Westinghouse engineer. A fireproofed, wood cover over the vessel opening is covered with galvanized sheet metal. Atop this platform is a metal clothing change house. Only shoe covers were required as protective clothing for entry into the vessel.

No items of noncompliance were identified.

7. Reactor Vessel Internals-Work Observation-Units 1 and 2

The Westinghouse representative stated that the Unit 1 upper and lower internals are completely assembled and have been fitted into the vessel. All lifting was performed with the operational handling rigs and the polar crane. The internals were observed to be stored on their especially designed, permanent supports in the fuel handling canal. The tops of the internals are covered with fire retardant plastic sheets and the canal is covered with a heavy cover.

The following components were inspected for proper installation and inspection requirements, using Westinghouse drawings 1096E68 sheets 1 through 3, entitled, "Bottom Mtd Instrumentation and Secondary Core Support Assembly", for orientation, location and installation requirements.

a. Details of 0.030 inch gap in energy absorber
b. Locking caps on guide tube allen head screws
c. Installation of secondary core support plates
d. Mounting configuration of instrument guide tubes
e. Assembly of energy absorbers

The Westinghouse representative stated that QC inspections were performed by Westinghouse and TVA personnel, but since the internals field work is an extension of the Pensacola shop fabrication that a completed QC Release form and certification would not be issued until after hot functional checkout.

The Unit 2 top and bottom internals were inspected in their stored position on the permanent support stands in the refueling canal. The canal is covered over the internals with a heavy door structure. A Westinghouse machinist and a Westinghouse QC inspector were observed at work, laying out the ports to be added to the flanges of the upper and lower internals to increase coolant flow in the upper head region. Assembly of the lower internals components has not started.

No items of noncompliance were identified.

8. Unresolved Item 390/78-32-01, Pipe Support and Restraint Discrepancy-Unit 1

Hanger 74-1RHR-R36 was reinspected with the licensee's representative. It was found to have been altered in design without the proper process as required by Criterion III of Appendix B to 10 CFR 50 and as implemented by paragraph 17.1A.3 of Topical Report TVA TR75-1 titled, "Design Control", and Construction QAP-3.01 titled, "Field Change Requests". Relocation of the lower anchor plate was necessary because of interference with another plate on that wall. NCR 1334R was issued to relocate that plate 5-1/2 inches lower and as shown in Revision 1 of Bergen-Patterson Drawing No. 74-1RHR-R36; however, the field installation was observed to be not in accordance with that drawing and the location installation was signed-off as "Approved" on the "Support Fabrication/Installation Operation Sheet" with no indication that a change will be made. The installed knee brace is of less strength than the approved design would have been, hence the installed support may have an impact on the safety of the system. The configuration of the lower mounting plate was also changed. This appears to be a noncompliance with Criterion III, "Design Control" of Appendix B to 10 CFR 50, is of the infraction severity level and shall be identified as 390/79-01-01, Failure to Control Field Design Changes.