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

JAN 8 1980

Report Nos. 50-390/79-39 and 50-391/79-33

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

Inspection at Watts Bar Site near Spring City, Tennessee

Inspector: _____ 1/7/80
B. J. Cochran Date Signed

Approved by: _____ 1/8/80
F. S. Cantrell Date Signed

SUMMARY

Inspection on October 9 - November 2, 1979

Areas Inspected

This routine resident inspection involved 64 inspector-hours onsite in the areas of alignment of safety injection pump and motor, receiving inspection of new fuel, termination of chemical and volume control pump motor, mastic coating of electrical cables and fire stops, pulling electrical cable and termination cable in main control panel and installation of poison shims in spent fuel storage racks.

Results

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

DETAILS

1. Persons Contacted

Licensee Employees

*T. B. Northern, Jr., Project Manager
*S. Johnson, Assistant Construction Engineer
*A. W. Rogers, Supervisor, QA
*C. O. Christopher, Assistant Construction Engineer (Civil)
*R. L. Heatherly, Supervisor, QC&R Unit
*J. H. Perdue, Supervisor, Electrical Engineering Unit
J. M. Lamb, Supervisor, Mechanical Engineering Unit
*H. C. Richardson, Construction Engineer
*J. G. Shields, Assistant Construction Engineer
*J. E. Treadway, Construction Superintendent
W. C. English, Assistant Construction Superintendent

*Attended exit interview

Other licensee employees contacted included construction craftsmen and technicians.

2. Exit Interview

The inspection scope and findings were summarized on October 12 and October 26, 1979, with those persons indicated in Paragraph 1 above. The resident inspector met with the licensee construction project manager and engineering supervisors to review the resident inspector's activities and findings. No items of noncompliance or deviations were identified.

3. Licensee Action on Previous Inspection Findings

This item was not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Independent Inspection Effort (Units 1 and 2)

a. During this inspection period the following non-programmatic construction activities were inspected, observed or witnessed:

(1) Observed millwrights aligning Unit 1 Safety Injection Pump (1BB) and Motor.

(2) Witnessed the receiving and inspection of six new fuel shipping casks (twelve fuel assemblies).

6. Licensee Identified Items 50.55(e)

a. (Close) (Item Nos. 390/79-08-02 and 391/79-05-02) "Metal shavings in auxiliary feed water valve actuators" (NCR-1356R)

The metal shavings were removed, valve actuators cleaned and refilled with hydraulic oil under the supervision of the manufacturer's representative.

Actuators are being installed on the valves.

b. (Close) (Item Nos. 390/79-04-01 and 391/79-03-01) "Spacing between reactor building steel liner and concrete" (NCR-1319R)

During the construction phase, fibrous glass expansion joint material was installed in the gap between the interior concrete refueling transfer canal structure and the containment vessel shell between azimuths 255 and 270 up to elevation 755 feet. TVA construction personnel used the expansion joint material as a forming agent instead of conventional forms due to the degree of difficulty in removing the forms. The design drawings called for the material to terminate at elevation 719.75 which would provide a 4-inch inward movement envelope for the dynamic displacement of the containment shell under a design basis accident (DBA). The presence of this material retards the free inward movement of the steel containment in the affected area under a DBA.

The reevaluation of this condition using the additional constraint imposed by the expansion joint material has determined that the effect of this additional material is negligible. Therefore, this condition does not adversely affect the safe operation of the plant.

c. (Close) (Item Nos. 390/79-30-03 and 391/79-25-03) "Hydrogen Detection System not environmentally qualified" (EEB 79-11)

A review of the environmental qualification data for the components of the Hydrogen Detection System revealed that there was no verification that the requirements for 150°F and 50,000,000 rads 30-day radiation dose are met. These qualifications are necessary for the installed location of the components in the containment annulus. The components are supplied by Comsip Delphi, Incorporated, 10650 East Rush Street, South Elmonte, California 91733.

The component supplier has performed further tests and analyses which have verified that the components meet the environmental qualification requirements stated above. Documentation of the tests and analyses has been supplied to TVA, and it is acceptable.