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

Report Nos. 50-518/81-02, 50-519/81-02, 520/81-02, and 521/81-02

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

Facility: Hartsville Nuclear Plant

Docket Nos. 50-518, 50-519, 50-520, and 50-521

License Nos. CPPR-150, CPPR-151, CPPR-152, and CPPR-153

Inspection at Hartsville site near Hartsville, TN

Inspector: _____ 2/11/81
W. B. Swan — Date Signed

Approved by: _____ 2/11/81
F. S. Cantrell, Section Chief, RC&ES Branch — Date Signed

SUMMARY

Inspection on January 5, - January 30, 1981

Areas Inspected

This routine, announced inspection involved 60 inspector-hours onsite by the resident inspector in the areas of A-1 drywell penetration frames; A-1 and A-2 steel containments; A-1 weir wall; concrete; open items; and independent inspection effort.

Results

Of the areas inspected, no violations were identified.

DETAILS

1. Persons Contacted

   Licensee Employees

   *R. T. Hathcote, Site Project Manager
   W. T. Quinn, Construction Engineer
   R. E. Young, Assistant Construction Engineer, Project Engineering
   J. T. Dorman, Assistant Construction Engineer, Second Shift
   H. S. Sheppard, Assistant Construction Engineer, Quality Control
   P. F. Gillespie, Supervisor, Technical Services
   B. F. Huffaker, Supervisor, Materials QC Unit
   R. C. Nixon, Supervisor, Document Control Unit
   F. E. Laurent, Unit Supervisor, STRIDE Mechanical Project Engineering
   G. A. Gonsalves, QA Unit Supervisor
   A. G. Debbage, QA Audit Supervisor
   M. U. Rudolphi, Unit Supervisor, Project Engineering, Hangers and Supports

   Other licensee employees contacted included four document control personnel, eight QC technicians, and two QA unit auditors.

   *Attended exit interview

2. Exit Interview

   The inspection scope and findings were summarized with the Project Manager on January 9, 19, 26, and 30, 1981.

3. Licensee Action on Previous Inspection Findings

   (Open) 518, 519, 520, 521/80-18-01, Infraction - Failure to Take Timely Corrective Action on Drawing Control Findings

   Periodic Sampling and a QA Unit reaudit January 22-24, 1981 revealed that 26 of 469 drawings examined were superceded. These findings led to the conclusion by the QA audit unit, that the control procedure is deficient rather than its implementation. A Confirmation of Action Letter was issued to TVA on January 30, 1981, requiring a 100% audit, a written evaluation of any construction using obsolete drawings, an investigation by TVA to determine the reason for the recurrence of superceded drawings, and a report to the NRC.

4. Unresolved Items

   Unresolved items were not identified during this inspection.

5. Independent Inspection Effort

The inspector made random unannounced surveillance tours during which the status of project work was noted, and construction activities were inspected on nuclear safety related structures, systems and facilities. Inspection effort was concentrated on Plant A areas, but outlying structures were covered.

Forming, installation of rebar, positioning of embedments, placements and post placement curing were inspected as work progressed in the Plant A fuel buildings, auxiliary buildings, control buildings, and essential service water pump houses. Completed concrete and new forming were inspected in the intake pumping system. Repairs to concrete in Plant B structures and in the recently placed Unit A-1 weir wall were inspected intermittently. During inspection of activities for structural concrete in these areas, conformance with the requirements of C. F. Braun Specification 300-01, Revision 8, "Concrete", TVA Construction Specification G-2, QCI C-201, Rev. 4, and C.E.P. 9.02, Rev. 5, was verified.

Numerous cadwelds were made in this period joining #18 rebars to sleeves on top of the A-1 vent wall and to vendor installed sleeves on penetration frames for the drywell above the vent wall. The inspector verified that installation requirements of Enrico Products Company, manufacturer of the cadweld hardware components were being met.

Weld joint preparations for joining the upper section of Frame 9 to the installed lower section of this penetration frame in the A-1 drywell, were inspected and fitup of the joints between the sections was inspected. No deviations from the controlling drawing notes and dimensions was identified.

Preliminary installation of piping systems in the A-1 and A-2 control buildings and auxiliary buildings was observed. Fitup of welds ahead of welding was inspected on a sampling basis and found to conform to drawing requirements.

The inspector again verified that subassemblies of piping moved from the fabrication shops to the installation areas were kept adequately capped and supported above storm water and construction debris. During walk-through inspections of installation of piping and pipe supports, the inspector confirmed the presence of TVA mechanical and welding inspectors in work areas.

Removal of the 1,050-ton temporary gantry crane used to set the A-2 reactor pressure vessel was commenced. The concrete and steel template used to assemble rings of the A-1 steel containment wall was removed to clear the area for follow on installations. The inspector verified that blasting and other demolition activities were performed in a manner to avoid damage to new concrete and other facilities.

No violations or deviations were identified.

6. Licensee Identified 50.55(e) Items

a. Previously Identified Items

(Open) 518/80-08-01, Cracks in A-1 RPV Shield Wall (NCR HNP-A-091) 10 CFR 50 Part 21 was applicable.

By final report dated DEcember 31, 1980, the licensee states that repair of the shield wall structure was completed using materials and procedures approved by GE. Procedures for minimizing chances for future cracking are approved. This NCR was closed by TVA January 20, 1981. The corrective actions will be reviewed during a future inspection.

b. Newly Identified Items

(Open) 518, 519, 520, 521/81-02-01, Fillet Weld Misspecification (HTRD 81-01)

Fillet welds were specified in applications where AISC Standards require beveled groove welds. Licensee is evaluating the Standards requirements and affected welds. A final report is due by April 6, 1981.

(Open) 518, 519, 520, 521/81-02-02, Pressure Drop in Essential Service Water Piping

Analysis of the ESW System (Division III) for Hartsville using new criteria (greater pressure drops due to corrosion products) shows the need for system modificatic ; to ensure adequate water supply to components. The licensee's f:nal report is due by March 20, 1981.

(Open) 518, 519, 520, 521/81-02-03, Standby Gas Treatment (SGTS) Design Deficiency

Part 21 is applicable.

Drainage provisions for deluge water for the SGTS water spray fire protection system, designed and supplied by CTI Nuclear is inadequate. Proposed redesign by CTI Nuclear must be approved by GE/C. F. Braun and TVA.

A final report is due by May 29, 1981.

7. Status of OIE Bulletins

(Closed) 80-22, Automation Industries Model 200-520-008 Sealed-Source Connectors

This bulletin was sent to licensees authorized to use byproduct material under 10 CFR 34 and is not applicable to Hartsville.

(Closed) 80-24, Prevention of Damage Due to Water Leakage Inside Containment

This bulletin was issued to operating BWR plant and is not applicable to Hartsville.

(Closed) 80-25, Operating Problems with Target Rock Safety-Relief Values of BWRs

Action is to be taken for BWR plants with an operating license or a pending near-term operating license; so it is not applicable to Hartsville.

8. Status of IE Circulars

(Closed) 80-25, Case Histories of Radiography Events

This circular was issued to industrial radiographers.