



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

Report Nos.: 50-321/84-35 and 50-366/84-35

Licensee: Georgia Power Company
P. O. Box 4545
Atlanta, GA 30302

Docket Nos.: 50-321 and 50-366

License Nos.: DPR-57 and NPF-5

Facility Name: Hatch 1 and 2

Inspection Conducted: August 21-24, 1984

Inspectors: K. E. Davenport
K. E. Davenport

9/4/84
Date Signed

K. E. Davenport for
G. A. Schnebli

9/4/84
Date Signed

Approved by: Frank Jape
F. Jape, Section Chief
Engineering Branch
Division of Reactor Safety

9/5/84
Date Signed

SUMMARY

Scope: This routine, unannounced inspection involved 52 inspector-hours on site in the areas of plant tour, pre-startup test witnessing, test procedure review, and test results evaluation.

Results: No violations or deviations were identified.

8410230023 840906
PDR ADOCK 05000321
Q PDR

REPORT DETAILS

1. Licensee Employees Contacted

- *J. T. Beckham, Jr. Vice President, Nuclear Generation
- *H. Nix, General Manager
- G. Brinson, QC Specialist
- R. Croft, Assistant Engineer
- E. Day, Lead Mechanical Engineer
- S. Kirk, Lead Recirc. Startup Engineer
- *J. Lanier, Associated Engineer
- D. Vaughn, QA Engineer

Other licensee employees contacted included two operators and two office personnel.

Other Organization

- H. Upton, General Electric Startup Engineer
- W. Yee, General Electric Representative

NRC Resident Inspectors

- R. Crlenjak, Senior Resident Inspector
- *P. Holmes-Ray, Resident Inspector

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on August 24, 1984, with those persons indicated in paragraph 1 above. The licensee acknowledged the findings without significant comment.

3. Licensee Action on Previous Enforcement Matters

This subject was not addressed in the inspection.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Independent Inspection Effort Units 1 and 2 (92706)

The inspectors toured portions of the Units 1 and 2 reactor buildings, control buildings and control complexes, turbine buildings, and switchyards to observe on-going activities for compliance with NRC requirements and licensee commitments.

No violations or deviations were identified.

6. Control Rod Testing (70332) (92706)

Procedure HNP-2-9403, Control Rod Friction Testing, was reviewed and portions were witnessed during testing of the control rod drive (CRD) systems. On August 20-21, 1984, CRD friction testing was performed on 17 CRDs. All but one CRD (26-31) produced acceptable results. A settle test was then performed on CRD 26-31 which also failed. On August 21, 1984, CRD 26-31 was retested to verify data and again it failed. The causes were determined to be either the timing in the CRD system or the test equipment. The test equipment was verified to be operable. Therefore, the vendor recommended that the directional control valves should be rebuilt. Following this maintenance the CRD was again tested. The inspector verified selected prerequisites and test connections prior to the retest. Following completion of the test, photographs were taken with a camera mounted on the oscilloscope to record the delta P trace. The photograph was then labeled with the time, date, hydraulic control unit (HCU) number, time scale setting, and delta P scale setting. The differential pressure exceeded the allowable limit of 15 psid. A settle test was then performed which also produced results of lower than the allowable limit of 30 psid. As corrective action, the licensee replaced the CRD, then performed a friction and settle test on the new system which produced satisfactory results.

No violations or deviations were identified.

7. Diesel Generator Testing (72517) (92706)

Portions of the 18 Month Diesel Generator (D/G) Surveillance Tests, procedure HNP-2-3831-E on the 1B D/G were witnessed by the inspector. The procedure was performed to meet Technical Specifications (TS) requirements: 4.8.1.1.2.C.6, ECCS test signal actuation verification; 4.8.1.1.2.C.8, loss of offsite power in conjunction with a LOCA; 4.8.1.1.2.C.3, load rejection of ≥ 798 KW; 4.8.1.1.2.C.10, auto-connected loads do not exceed 2 hour D/G rating; 4.8.1.1.2.C.11 re-synchronizing to offsite power with emergency loads; and 4.8.1.1.2.C.12 overrides of D/G Test Mode.

It was verified that the most recent revision was in use during performance of the test and the procedure was given proper management approval.

Prerequisites 1, 2, and 3 to the procedure fulfilled TS requirements 4.8.1.1.2.C.1, .2, and .3, respectively. A strip chart recorder was setup and calibrated for recording data during transients and stop watches were available for measuring time delay intervals. An operator was stationed in the D/G building with communications established between the control room and the 1B D/G. Plant loads when required, transferred automatically as designed. When test results were determined acceptable, the plant was restored to normal conditions.

No violations or deviations were identified within the areas inspected.

8. Cleanliness During Recirculation System Removal and Replacement (92706)

Newport News Industrial Corporation (NNI) Procedure 1918-K-S001, Instruction for Cleanliness During Recirculation System Removal and Replacement, and portions of the controlled work instruction (CWI) 1918K-5, Reinstallation of the "A" Loop Suction Piping, were reviewed and discussions were held with QC specialists concerning instructions for cleanliness on the recirculation system and associated piping. NNI procedure 1918-K-S001 provides the minimum requirements for cleanliness for the control of debris, including dust, weld spatter, flux, dirt; personnel working in the clean area; and material accountability. The procedure is used when evoked by the CWI. The cleanliness category of the recirculation system and associated piping is class B which is defined as a high level of cleanliness with no scale, dust, dirt or other contamination visible to a person with normal acuity. The acceptance criteria for class B applies to all internal surfaces that will contact the process fluid. The CWI provides for protection from foreign material entering the piping in accordance with procedure 1918-K-S001, and includes established hold points for licensee QA/QC and NNI inspections.

No violations or deviations were identified within the areas inspected.

9. Inspection of Replacement of BWR Recirculation Piping (TI 2512/13), (72701), (70562)

During the course of this inspection, the inspector discussed the testing required as a result of the recirculation piping replacement with licensee/contractor engineers and QA/QC personnel and reviewed preoperational test procedures and quality records applicable to this modification.

a. Startup Testing - New or Modified Systems

The following documents and completed test procedures were reviewed:

- (1) General Electric Proposal - "Plant Restart Testing Following Recirculation Pipe Changeout", dated May 2, 1984. This document identified restart testing necessary to ensure proper performance of systems affected by work performed during the outage and was compared to testing already accomplished or scheduled for completion during the upcoming startup.
- (2) HNP-2-10248 and HNP-2-10255, Pre-Operational Testing of "A" and "B" Recirculation Loops. These tests verified the proper operation of various recirculation loop components, including pumps (preliminary testing), valves, breakers, relays, thermocouples, alarms, and preliminary pump vibration measurements.
- (3) HNP-2-10268, RTD Test on "A" and "B" Recirculation Loops.

- (4) HNP-2-3995, Inservice Inspection Reactor Pressure Vessel Hydrostatic Test. This test was complete with the exception of the return to normal valve line up and final licensee review of the data packages. The inspector performed a preliminary review of the procedure and data to ensure that regulatory and ASME code requirements were met. The licensee was informed that NRC final review is pending completion of the procedure.
- b. The inspectors reviewed the plant's method for ensuring that systems/ components which were removed as interference items were properly tested prior to returning them to service. This was accomplished by functional testing (FTs) which included flushes, hydrostatic and operational tests. The FTs were performed and documented under maintenance requests (MRs). A computer list was obtained which identified FTs and their associated MRs.
- c. The inspectors obtained a test schedule and copies of the test procedures, associated with recirculation piping replacement, required to be performed after plant startup. These procedures will complete the necessary testing due to this modification as identified by item 9.a(1).

No violations or deviations were identified in the areas inspected.