



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

Report Nos.: 50-321/78-36 and 50-366/78-45

Docket Nos.: 50-321 and 50-366

License Nos.: DPR-57 and NPF-5

Licensee: Georgia Power Company
Plant E. I. Hatch
Post Office Box 442
Baxley, Georgia 31513

Facility Name: E. I. Hatch, Units 1 and 2

Inspection at: Baxley, Georgia

Inspection conducted: November 6-9, 1978

Inspectors: R. H. Wessman
D. S. Price
R. Vogt-Lowell (November 7-9, 1978)

Approved by: H. C. Dance
H. C. Dance, Chief
Reactor Projects Section No. 1
Reactor Operations and Nuclear Support Branch

11/24/78
Date

Inspection Summary

Inspection on November 6-9, 1978 (Report Nos. 50-321/78-36 and 50-366/78-45)

Areas Inspected: Routine, unannounced inspection to review licensee activities during the Unit 1 refueling outage (March-April 1978); inspect general plant cleanliness; review Unit 2 startup test activities; review facility operations; and facility tour. The inspection involved 70 inspector-hours on-site by three NRC inspectors.

Results: Of the five areas inspected, no items of noncompliance or deviation were found in four areas and two items of noncompliance were found in one area (infraction - failure to conduct maintenance on safety-related equipment in accordance with procedural requirements (321/78-36-6) - paragraph II-5; deficiency - failure to submit a 30-day report (321/78-36-7) - paragraph II-6.

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DETAILS I

Prepared by: H C Dance / for
D. S. Price, Reactor Inspector
Reactor Projects Section No. 1
Reactor Operations and Nuclear
Support Branch

11/24/78
Date

Dates of Inspection: November 6-9, 1978

Reviewed by: H C Dance
H. C. Dance, Chief
Reactor Projects Section No. 1
Reactor Operations and Nuclear
Support Branch

11/24/78
Date

1. Persons Contacted

Georgia Power Company

- *S. Baxley, Superintendent of Operations
- *T. Green, Superintendent of Plant Engineering Services
- R. Nix, Superintendent of Maintenance
- *C. Coggin, Startup Test Coordinator
- *W. Thigpen, QA Field Representative
- *B. Barrett, QA Field Representative
- T. Elton, Associate Plant Engineer
- G. Brantly, Shift Supervisor
- F. Gorley, Shift Foreman
- A. Anthony, Shift Foreman
- D. Drinkland, Engineer
- R. Baker, Engineer

*Denotes those present at the exit interview.

2. Licensee Action on Previous Inspection Findings

Not inspected.

3. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance or deviations. Two unresolved items disclosed during the inspection are discussed in Paragraph 5.

4. Exit Interview

The inspectors met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on November 9, 1978. The inspectors summarized the purpose and scope of the inspection and the findings.

With regard to the unresolved items in paragraph 5, the licensee stated that they would review the areas of concern.

5. Plant Operations

The inspector reviewed plant operations for Units 1 and 2 since October 1, 1978. The review included examinations of the Operator Surveillance Checks (HNP-1050), supervisor log reviews, Supervisor Plant Housekeeping Inspections (HNP-556), and Equipment Clearance and Tagging Procedures (HNP-501). These reviews were made to determine compliance with technical specifications, Final Safety Analysis Report (FSAR) commitments, and local procedures.

The HNP 1050 operator data sheets contained a number of errors. In eight recent data sheets from Units 1 and 2 there were 16 minor errors identified which included data omissions, mathematical mistakes in equipment and floor drain leakage rate calculations, and the recording of data which exceeded local limits but was not circled in red as required by HNP-1050. In no case was any technical specification value exceeded. There were two cases in which local limits had been exceeded, the values circled in red on the HNP-1050 data sheet, but no action taken for approximately a 1 month period. In one of these instances, no corrective action was taken until a maintenance request was submitted after the inspector had questioned a shift foreman as to why the abnormal condition continued to exist. The problem of local limits being exceeded on the HNP-1050 data sheet with no indication of corrective action was identified in a previous inspection report (Number 50-321/77-08 of July 6, 1977) at which time the licensee stated that "... the necessary corrective action would be taken." As part of this corrective action the site Quality Assurance Department made a recent audit in this area (Reactor and Station Operation Audit of September 4, 1978) and again noted that data which exceeded local limits did not indicate if corrective action was taken.

Errors of the type listed above were apparently not noted during review by site supervisory personnel. Review of the HNP-1050 data sheets as well as the Shift Foreman's Log and Plant Operator's Log were committed to by the licensee in the Unit 1 and 2 FSAR (Section 13.9.2 and 13.6.2). These commitments had not been incorporated in plant procedures, and furthermore the only record of any of these reviews was the initials of the Operations Supervisor on some Plant Operator's Log.

Unresolved Item: The matter of ineffective supervisory reviews as evidenced by numerous errors in the HNP-1050 data sheets, is considered an unresolved item. It will be reviewed again at a later date to determine the results of corrective action by the licensee in the areas noted (321/78-36-01, 366/78-45-01).

HNP-501 requires that when a clearance is requested on safety-related components requiring them to be placed in an off-normal position, and isolation of the component is not covered in an approved procedure, the equipment clearance sheet must be signed twice on both the "tagged by" line and the "tags removed by" line. Six equipment clearance sheets were identified in this category which did not have the double verification signature on both the "tagged by" and "tags removed by" lines. The procedure also requires that the equipment clearance be closed out from the clearance sheet index when the clearance is released. Five equipment clearances were identified for which the clearance had been issued but had not been closed out from the index.

Unresolved Item: This matter of omissions on the HNP-501 clearance and index sheets is considered an unresolved item and will be reviewed again at a later date to determine the results of corrective action by the licensee (321/78-36-02, 366/78-45-02).

Plant housekeeping inspections by site supervisory personnel appear to be performed at adequate intervals throughout the plant as documented by HNP-556 data sheets.

6. Plant Tour

A plant tour of Unit 1 was conducted to observe conformance of radiation controls, plant housekeeping, piping vibrations, valve positions, pipe hanger/seismic restraints and equipment clearance tag-out information with the requirements of technical specifications and local procedures. Control room manning was also checked for compliance with the facility technical specifications.

A packing leak was identified on the Reactor Core Isolation Cooling turbine exhaust line isolation valve and water was observed dripping from the vicinity of the open ended ram's head vent downstream of the turbine exhaust rupture diaphragm. Maintenance requests were subsequently submitted on both of these items.

No items of noncompliance or deviations were identified.

Data Submission

The plant Hatch Unit 2 Technical Specifications were issued with a requirement on settlement of Class 1 structures (3/4.7.8). A note in the technical specification states that values for allowable differential settlement will be reported to the Commission by November 1, 1978. In a letter dated October 20, 1978, from Georgia Power Company to Director of Nuclear Reactor Regulations, the licensee stated that the data would be provided December 1, 1978 vice November 1, 1978.

DETAILS II

Prepared by: H C Dance / for 11/29/78
R. H. Wessman, Reactor Inspector
Reactor Project Section No. 1
Reactor Operations and Nuclear
Support Branch
Date

Dates of Inspection: November 6-9, 1978

Reviewed by: H C Dance 11/29/78
H. C. Dance, Chief
Reactor Project Section No. 1
Reactor Operations and Nuclear
Support Branch
Date

1. Persons Contacted

Georgia Power Company

- *M. Manry, Plant Manager
- *T. Greene, Superintendent, Engineering Services
 - T. Cooper, Reactor Engineer
 - M. Kehoe, Outage Coordinator
 - T. Elton, Surveillance Coordinator
- *S. Baxley, Superintendent of Operations
- *B. Barrett, QA Field Representative

The inspector also interviewed 6 other licensee employees during the course of the inspection. They included plant engineering services personnel, operations personnel, HP technicians and general office personnel.

*Denotes those present at the Exit Interview.

2. Licensee Action on Previous Inspection Findings

Not inspected.

3. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of non-compliance, or deviations. An unresolved item disclosed during the inspection is discussed in Paragraph 5.

4. Exit Interview

The inspector met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on November 9, 1978. Items covered by the inspection were discussed, including the noncompliances relating to the conduct of RHR system logic maintenance and in meeting reporting requirements.

With regard to the noncompliance item concerning the conduct of maintenance on RHR System logic, the licensee stated that (1) untested 10-second time delay relays in the pump starting logic (for both Units 1 and 2) would be tested by Monday, November 13, 1978, and (2) that review of the RHR Logic System Functional Tests (HNP-1-3153 and HNP-2-3153) for adequacy would be made prior to their next use. With regard to the noncompliance relating to reporting, the licensee declined to comment pending the issue of this inspection report.

5. RHR System Logic Maintenance

While reviewing the documentation associated with completed design change DCR 78-32 (RHR Undervoltage Logic Modification), the inspector identified an apparent item of noncompliance. The licensee, while testing Unit 1 RHR logic subsequent to the implementation of DCR 78-32, determined that 10-second time delay relay K126 (serving the "D" PHR pump start logic) was inoperable. This determination was made on April 12, 1978, and MR 78-1257 was written on April 18, 1978. This relay was not calibrated and restored to operability until June 27, 1978. During this period, the plant was operated on several occasions (April 16-19, April 27-May 7, and June 18-post-June 27).

This time delay relay is fundamental to the design operation of the RHR system when operating in the LPC1 mode and with power supplied by the diesel generator. This relay (and other similar time delay relays) assure sequential application of loads to the diesel generator so as to not overload the diesel, and cause a trip in this vital power source. Hence, the operability of the diesel generator serving RHR pump D can not be assured and Technical Specification 3.9.B.2 would apply.

Technical Specification 6.8.1 requires the licensee to establish, implement and maintain written procedures that meet or exceed the requirements and recommendations of Sections 5.1 and 5.3 of ANSI N18.7-1972 and Appendix "A" of Regulatory Guide 1.33, November 1972. This technical specification is implemented, in part, by HNP-8, Maintenance Request (MR), Revision 11. This procedure requires that any work affecting system operability be accomplished under a Maintenance

Request. Also, HNP-8 provides requirements for affecting timely maintenance on systems where plant safety is impaired and/or plant shutdown will be required.

In that this relay's failure may affect the capability of a plant safety-related system to function as designed and that the LPCI system was not restored to fully operable status prior to Unit 1 operation, the licensee failed to comply with procedural requirements of Technical Specification 6.8.1. This has been identified as a noncompliance in the Notice of Violation (321/78-36-06).

As a result of the finding concerning relay K126 on the Unit 1 RHR system logic, the inspector and the licensee reviewed RHR logic system functional tests for Units 1 and 2 and determined the test status of similar relays for all RHR pumps. Two similar relays on Unit 1 and one similar relay on Unit 2 were found to lack test data verifying their design operation. The licensee committed to test these relays by November 13, 1978. This test was verified satisfactory by the Resident Inspector on November 13.

The inspector and the licensee also discussed the development of RHR System LPCI Logic System Functional Tests (HNP-1-3153, dated May 13, 1978, and HNP-2-3153, dated June 22, 1978). Test procedure deficiencies relating to these 10-second time delay relays were identified. The licensee agreed to review these and any other identified logic test discrepancies prior to the next use of the procedure to meet facility surveillance requirements (once per refueling cycle). This item will be reinspected (321/78-36-03 and 366/78-45-03).

The inspector raised the possibility that discrepancies may exist in other safety-related system logic system functional tests. The licensee asserted that, to the best of their knowledge, no discrepancies (other than the RHR 10-second time delay relay omissions) were in existence. The possibility that logic system functional tests may contain discrepancies has been identified as an unresolved item pending further NRC inspection (321/78-36-04 and 366/78-45-04).

6. Reportability of RHR System Logic Degradation

Technical Specification 6.9.1.2.b provides requirements for Thirty Day Written Reports. Specifically, a written report is required within 30 days when conditions leading to operation in a degraded mode permitted by a limiting condition for operation are identified.

The inoperability of time delay relay K126, serving the "D" RHR pump start logic under conditions requiring LPCI with power provided by the diesel generators, resulted in a degradation of the operability of

this pump and its associated diesel generator. As described in paragraph 5 of these details, this pump may not function as designed with this relay inoperable. The inoperability of this relay was identified by the licensee April 12, 1978 and corrected on on June 27, 1978. Failure to report this event has been identified as a noncompliance in the Notice of Violation (321/78-36-07).

7. Maintenance and Design Change Activities During the Unit 1 Refueling of March - April 1978

The inspector reviewed five maintenance and design change actions implemented during the March-April 1978 refueling outage. These activities were reviewed for conformance to Technical Specification limitations and procedural requirements of HNP-809 (Plant Modifications) and HNP8 (Maintenance Request-MR). The inspector determined that the design change (DCR) or maintenance request (MR) had been properly completed and system retest or restoration completed as required. Supporting documentation, such as clearances, radiation work permits, maintenance procedure data sheets, inventory material requisitions, and safety evaluations were reviewed as appropriate. The following DCR/MR's were reviewed:

DCR 77-326	Drywell Spray Header
DCR 78-32	RHR Undervoltage Relay Contacts Logic Change
DCR 76-153	Modify Power Supply to R24-S018A and R24-S018B
MR 78-579	LPRM String Replacement
MR 78-635	Control Rod Drive Replacement

The following findings by the inspector were discussed with the licensee:

- a. Implementation of DCR 78-32 revealed the inoperable 10-second time delay relay, as discussed in paragraph 5 of these details.
- b. Several of the LPRM's replaced under MR 78-579 were not unbypassed until August 1978; however, Technical Specification limits concerning bypassed LPRM's were observed.
- c. MR 78-635 replaced six control rod drives. From review of recent scram data and conversations with the reactor engineer, the inspector learned that four of the replaced control rod drives are among the five slowest rods in Unit 1. All are still within Technical Specification limits and the licensee is monitoring performance of these drives.

- d. The licensee is currently reviewing his program for design change management. This review includes considering the use of cross-references and joint handling of the DCR and associated MR.
- e. The inspector noted that, for DCR's reviewed, safety evaluations as required by 10 CFR 50.59(e) are being performed. The basis used for determinations in the safety evaluation did not appear to be particularly clear to the inspector.

The inspector stated that items d and e (above) would be followed up in a future inspection of DCR handling (321/78-36-05 and 366/78-45-05).

8. Review of Surveillances Conducted During the Unit 1 Refueling Outage

The inspector reviewed randomly selected surveillance activities conducted during the March-April 1978 Unit 1 refueling outage. These surveillance records were reviewed to verify conformance to Technical Specification surveillance requirements. Fifteen surveillances, dealing with systems such as residual heat removal, refueling interlocks, automatic depressurization system, source range monitoring, and drywell and torus vacuum breakers were reviewed. Within the areas inspected, no discrepancies were identified.

9. Facility Tour

The inspector toured various portions of Unit 1, including most accessible areas of the reactor building and turbine building. Within the areas inspected, no discrepancies were identified.

DETAILS III

Prepared by:

M. Lowell
 R. J. Vogt-Lowell, Reactor Inspector
 Nuclear Support Section No. 1
 Reactor Operations and Nuclear
 Support Branch

11-28-78
 Date

Dates of Inspection: November 7-9, 1978

Reviewed by:

R. D. Martin
 R. D. Martin, Chief
 Nuclear Support Section No. 1
 Reactor Operations and Nuclear
 Support Branch

11/25/78
 Date

1. Persons Contacteda. Georgia Power Company

- *M. Manry, Plant Manager
- *T. V. Greene, Superintendent of Engineering Service
- *C. L. Coggin, Startup Test Director
- *C. R. Miles, QA Field Supervisor
- *C. E. Belflower, QA Site Supervisor
- *P. E. Fornel, QA Field Representative

b. General Electric Company

R. M. Wyatt, Lead STD&A Engineer

*Denotes those present at the exit interview.

2. Licensee Action on Previous Inspection Findings

Not applicable to this inspection report period.

3. Unresolved Items

No new unresolved items this report period.

4. Exit Interview

The inspector met with M. Manry, Plant Manager, and members of his staff as denoted in paragraph 1 on November 9, 1978. The inspector summarized the scope and findings of the inspection and indicated that subsequent inspections would continue to focus on the ongoing startup test program.

5. Startup Test Results Evaluation

Nine completed preoperational test procedures were reviewed by the inspector to ascertain whether uniform criteria are being applied for evaluating completed startup tests to assure their technical and administrative adequacy. Each procedure was reviewed to verify:

- a. Each procedure change was approved in accordance with the pertinent administrative procedures.
- b. That the test change had been completed if it entailed specific action.
- c. That the procedure change did not change the basic objectives of the test.
- d. That all test exceptions had been resolved and that the resolution had been accepted by appropriate management.
- e. That outstanding exceptions have been identified and if completed, proper approval signature obtained.
- f. If required, the retest requirements have been completed.
- g. Licensee review and evaluation of the test results and acknowledgment that testing demonstrated system design requirements.
- h. That the licensee specifically compared test results with established acceptance criteria.
- i. That data sheets had been completed and that all data recorded where required are within acceptance tolerance.
- j. That those personnel charged with responsibility for review and acceptance of test results have documented their review and acceptance of the test package.

The following documents were reviewed.

HNP-2-10205	Control Rod Drive System - Open Vessel Testing
HNP-2-10305	Control Rod Drive System - Heatup Plateau Testing
HNP-2-10313	Process Computer - Heatup
HNP-2-10325	Main Steam Insulation Valves - Heatup

HNP-2-10400	Power Testing - Test Condition 1
HNP-2-10406	SRM Performance and Control Rod Sequence Testing - T.C.1
HNP-2-10413	Process Computer - T.C.1
HNP-2-10419	Core Performance - T.C.1
HNP-2-10422	Pressure Regulator Startup Testing - T.C.1

Within the areas inspected, no items of noncompliance were identified.

6. Reactor Pressure Vessel (RPV) Intervals Vibration

The inspector reviewed the RPV Intervals Vibration Testing report submitted to the NRC pursuant to the provisions of Regulatory Guide 1.20. This completes the review of this testing and thus open item 78-35-01 in report 50-366/78-35 is closed. Within the areas inspected, no items of noncompliance were identified.