



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30323

Report Numbers: 50-321/87-08 and 50-366/87-08

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

Docket Numbers: 50-321 and 50-366

License Numbers: DPR-57 and NPF-5

Facility Name: Hatch 1 and 2

Inspection Dates: March 28 - April 24, 1987

Inspection at Hatch site near Baxley, Georgia

Inspectors:	<u><i>RP Crotian FOR</i></u>	<u>5/22/87</u>
	Peter Holmes-Ray, Senior Resident Inspector	Date Signed
	<u><i>RP Crotian FOR</i></u>	<u>5/22/87</u>
	Gregory M. Neffelt, Resident Inspector	Date Signed
	<u><i>RP Crotian FOR</i></u>	<u>5/22/87</u>
	John E. Menning, Resident Inspector	Date Signed
Approved by:	<u><i>RP Crotian FOR</i></u>	<u>5/22/87</u>
	Floyd S. Cantrell, Chief, Project Section 2B	Date Signed
	Division of Reactor Projects	

SUMMARY

Scope: This routine inspection was conducted at the site in the areas of Licensee Action on Previous Enforcement Matters, Operational Safety Verification, Maintenance Observation, Surveillance Observation, and Reportable Occurrences.

Results: No violations or deviations were identified.

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## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

T. Beckham, Vice President, Plant Hatch  
H.C. Nix, Plant Manager  
\*D. Read, Plant Support Manager  
H.L. Sumner, Operations Manager  
\*P.E. Fornel, Maintenance Manager  
\*T.R. Powers, Engineering Manager  
R.W. Zavadoski, Health Physics and Chemistry Manager  
C. Coggin, General Support Manager  
\*M. Googe, Outages and Planning Manager  
\*O.M. Fraser, Site Quality Assurance (QA) Manager  
C.T. Moore, Training Manager  
\*S.B. Tipps, Superintendent of Regulatory Compliance

\*Attended exit interview

Other licensee employees contacted included technicians, operators, mechanics, security force members and office personnel.

NRC regional management on site during inspection period to attend the Systematic Assessment of Licensee Performance (SALP) meeting on April 6, 1987, were:

M.L. Ernst, Deputy Regional Administrator  
L.A. Reyes, Director, Division of Reactor Projects (DRP)  
F.S. Cantrell, Chief, Project Section 2B, DRP  
R. Croteau, Reactor Engineer, Project Section 2B, DRP

### 2. Exit Interview (30703)

The inspection scope and findings were summarized on April 24, 1987, with those persons indicated in paragraph 1 above. The licensee did not identify as proprietary any of the material provided to or reviewed by the inspectors during this inspection. The licensee acknowledged the findings and took no exception.

(CLOSED) Inspector Followup Item (IFI), 50-366/85-38-01 - Procedural Incorporation of Design Change Requests (DCRs). High pressure coolant injection (HPCI) surveillance procedure, 34SO-E41-001-2, and reactor core isolation cooling (RCIC) surveillance procedure, 34SO-E51-001-2S, have been corrected respectively by revisions 3 and 1 to indicate the equipment relocated by Appendix "R" work, DCR 83-144. To prevent similar

reoccurrences, the "Preparation and Control of Procedure" procedure, 10AC-MGR-003-OS, Section 8.5.1.14, was revised by Revision 5 to provide a means to validate procedures. The validation process will formally verify the equipment location prior to issuing a procedure.

(CLOSED) IFI, 50-321,366/86-36-05 - Potential Failure of the Intermediate Range Monitor (IRM) Negative Power Supply Fuse. IRM instrument functional surveillance procedures - 57SV-H11-001-1, Revision 0, and 57SV-H11-001-2, Revision 0 - are performed: weekly, within 24 hours of a reactor startup, and following IRM instrument repair. These functional tests would detect a blown IRM negative power supply fuse. The licensee has initiated, as a long term corrective action, DCR 86-377, to replace 0.75 ampere IRM chassis fuses with 1.5 ampere fuses. These fuse replacements were in keeping with the General Electric (GE) Services Information Letter (SIL) No. 445 recommendation.

(CLOSED) IFI, 50-321/87-02-04 - Chemical Surface Contamination of Control Rod Drive (CRD) Piping. High levels of chlorides and sulfides were found on the stainless steel CRD piping. The source of this chemical contamination was a cleaning fluid used routinely for general cleaning and radiological decontamination - Zepac. The reactor water cleanup (RWCU) room, above the CRD piping, was not adequately wiped to remove the Zepac used (i.e., poor housekeeping); and eventually the chemical contamination was deposited on the CRD piping below. The licensee has prohibited the use of Zepac on stainless material; and has initiated an investigation of alternate cleaning fluids to use in the plant. Also, the CRD piping in question has been inspected and was found undamaged. A second inspection of this CRD piping is being scheduled before July 30, 1987, to ensure that additional chemical contaminants have not leached on the piping.

### 3. Licensee Action on Previous Enforcement Matters (92702)

(CLOSED) Violation, 50-366/86-15-02 - Failure to Declare a Snubber Inoperable, because of Procedural Revision Problem. Amendment No. 72 of Technical Specification (TS) 4.7.4, concerning a snubber visual inspection acceptance criterion change, was incorporated into surveillance procedure, 52SV-SUV-001-2S, Revision 2. To preclude the likelihood of failing to incorporate future TS amendments into plant procedures, the licensee issued "Technical Specification Surveillance Program" procedure, 40AC-REG-001-OS, Revision 0; and "Revision to Licensing Documents" procedure, 43RC-CPL-001-OS, Revision 0. Also, GPC letters of July 30, 1986, and August 25, 1986, were reviewed and were determined to be acceptable by the inspector verifying the licensee's responses.

(CLOSED) Unresolved Item\*, 50-321/86-12-02 - Residual Heat Removal (RHR) Pump Minimum Flow Valve Tagged Shut during Shutdown Cooling Mode. The RHR minimum flow valves, 1E11-F007A and -F007B, were routinely closed by the licensee in the RHR shutdown cooling mode to ensure that water was not

bypassed to the suppression pool. The procedure upgrade program (PUP) procedure, 34SO-E11-010-1S, Revision 0, Section 7.2.3, to replace 34SO-E11-005-1S, Revision 2, was issued with an operator caution to frequently ensure that the RHR flow rate is maintained greater than 1,000 gpm. This practice - to deenergize the RHR minimum flow valve closed - was also found to be the standard practice at five other boiling water reactor plants that were canvassed by the licensee.

(CLOSED) Unresolved Item, 50-321/86-15-01 - Inoperability of Standby Gas Treatment (SBGT) System Train, because of Wet Charcoal Filter. This URI was upgraded to a violation in escalated enforcement action (EA) 87-27. Also, additional information is contained in inspection report 50-321/86-43.

4. Unresolved item (URI)\*

(OPEN) URI, 50-321/87-08-01 - The licensee reported inadvertent isolations of the high pressure coolant injection (HPCI) and reactor core isolation cooling (RCIC) systems during operability testing of reactor coolant system instrument line excess flow check valves (EFCVs) in Unit 1 on April 18, 1987. This testing was being performed in accordance with surveillance procedure 57SV-SUV-004-1S, Revision 2. The HPCI system isolation occurred during testing of EFCV 1E41-F024C. The RCIC system isolation occurred subsequently during the testing of EFCV 1E51-F044A. The licensee's initial review of this procedure revealed that the jumper installation and link opening instructions contained in Table 1 of the procedure were incorrect. Previous revisions of this procedure did not contain the current jumper installation and link opening instructions. Similar system isolations were therefore not experienced during previous EFCV operability testing. In reviewing this matter, the inspectors noted that this procedure had not yet been validated as part of the licensee's Procedure Upgrade Program (PUP). The licensee's review of these inadvertent system isolations is continuing. Pending completion of the licensee's review, this matter is identified as an URI.

5. Operational Safety Verification (71707)

The inspectors kept themselves informed on a daily basis of the overall plant status and any significant safety matters related to plant operations. Daily discussions were held with plant management and various members of the plant operating staff. The inspectors made frequent visits to the control room. Observations included instrument readings, setpoints and recordings, status of operating systems, tags and clearances on equipment, controls and switches, annunciator alarms, adherence to limiting conditions for operation, temporary alterations in effect, daily journals and data sheet entries, control room manning, and access controls. This inspection activity included numerous informal discussions with operators and their supervisors. Weekly, when on site, selected

\*An Unresolved Item is a matter about which more information is required to determine whether it is acceptable or may involve a violation or deviation.



Engineering Safety Feature (ESF) systems were confirmed operable. The confirmation was made by verifying the following: accessible valve flow path alignment, power supply breaker and fuse status, instrumentation, major component leakage, lubrication, cooling, and general condition.

General plant tours were conducted on at least a biweekly basis. Portions of the control building, turbine building, reactor building, and outside areas were visited. Observations included safety related tagout verifications, shift turnover, sampling program, housekeeping and general plant conditions, fire protection equipment, control of activities in progress, radiation protection controls, physical security, problem identification systems, and containment isolation.

On April 17, 1987, the inspector found that the Unit-1 turbine building water analysis room sample hood exhaust fan was off with the hood open. Procedure 62HI-OCB-001-0, Revision 0, required that a minimum flow velocity of 100 ft<sup>3</sup>/min be maintained for this sample hood. No explanation could be provided by the licensee as to why the exhaust fan was turned off. The actual safety significance with the given plant conditions was negligible.

In the area of housekeeping the following discrepancies were observed by the inspector:

- (1) Equipment was left after work had been performed (e.g., ladder, wire coil, hack saw, and leather glove behind North wall electrical panels in Unit-2 reactor building, 130' elevation).
- (2) Anti-contamination clothing was not placed into the proper receptacle contrary to procedure 60AC-HPX-004-05, Revision 3, Attachment 2. Cloth boot covers, rubber boots, and rubber gloves were found in noncontaminated areas in the Unit 2 Southeast diagonal on the 106' and 118' elevations on April 20, 1987. It did not appear that the clothing had been used in a contaminated area.
- (3) A health physics (HP) capture bottle used to collect potential contaminated water was left in an uncontaminated area in the Unit-2 Southeast diagonal, 106' elevation on April 20, 1987. Leaving a potential source of radiological contamination in a clean area, although a radiological restricted area by 10 CFR 20, is considered a poor practice. This bottle was removed after the inspector talked with a HP supervisor. However, no previous HP action was taken to remove this capture bottle even though a shift supervisor found it during a plant tour and reported it to HP approximately a week earlier.
- (4) On April 17, 1987, a prominently marked control building emergency fire protection equipment box was found on the 147' elevation in the control building outside the cable spreading room.

The box was unlocked and stored various cleaning supplies. Action was taken on April 20, 1987, by the licensee to correct this situation.

The above discrepancies were discussed with plant management and corrective actions were taken. In the course of the monthly activities, the resident inspectors included a review of the licensee's physical security program. The performance of various shifts of the security force was observed in the conduct of daily activities to include: protected and vital access controls, searching of personnel, packages and vehicles, badge issuance and retrieval, escorting of visitors, patrols and compensatory posts. On April 16, 1987, the central alarm station (CAS) was visited by the resident inspectors. The security officer on duty was attentive to his duties and the surveillance equipment was functioning satisfactorily.

No violations or deviations were identified.

6. Maintenance Observation (62703)

During the report period, the inspectors observed selected maintenance activities. The observations included a review of the work documents for adequacy, adherence to procedure, proper tagouts, adherence to technical specifications, radiological controls, observation of all or part of the actual work and/or retesting in progress, specified retest requirements, and adherence to the appropriate quality controls.

Maintenance and HP housekeeping items that were found are discussed in paragraph 5.

No violations or deviations were identified.

7. Surveillance Testing Observations (61726)

The inspector observed the performance of selected surveillances. The observation included a review of the procedure for technical adequacy, conformance to Technical Specifications, verification of test instrument calibration, observation of all or part of the actual surveillances, removal from service and return to service of the system or components affected, and review of the data for acceptability based upon the acceptance criteria.

The inadvertent isolations of the high pressure coolant injection (HPCI) and reactor core isolation cooling (RCIC) systems during Unit 1 EFCV surveillances on April 18, 1987, was identified as URI 50-321/87-08-01 in paragraph 4.

On April 21, 1987, brass compression test plugs were found by the licensee to be badly corroded in the compression cylinders of the "2C" diesel generator (D/G) - a 12 cylinder Fairbanks Morris engine. The licensee's

investigation was prompted by the ejection of one "2C" D/G brass compression plug on April 14, 1987, during a surveillance. No record of the use or removal of these brass plugs could be found within the last five years for any of the five D/Gs on site. The licensee inspected the brass compression plugs in all of the D/Gs and replaced brass plugs as necessary.

The licensee notified the vendor, Fairbanks Morris/Colt Industry, of this potential generic problem; and placed this information on the industry nuclear information network. Samples of the corroded brass plugs found in the "2C" D/G were provided to regional specialists for evaluation.

No violations or deviations were identified.

8. ESF System Walkdown (71710)

The inspectors routinely conducted partial walkdowns of ESF systems. Valve and breaker/switch lineups and equipment conditions were randomly verified both locally and in the control room to ensure that lineups were in accordance with operability requirements and that equipment material conditions were satisfactory.

Within the areas inspected, no violations or deviations were identified.

9. Reportable Occurrences (90712 & 92700)

A number of Licensee Event Reports (LERs) were reviewed for potential generic impact, to detect trends, and to determine whether corrective actions appeared appropriate. Events which were reported immediately were also reviewed as they occurred to determine that Technical Specifications were being met and consideration of the effect on public health and safety was evaluated.

Unit 1: N/A

Unit 2: 85-22\* (See Violation 86-15-02. This violation, which is closed in this report, also concerned a failure to incorporate new TS amendments into plant procedures.)

\*In-depth review performed

10. Operating Reactor Events (93702)

The inspectors reviewed activities associated with the below listed reactor events. The review included determination of cause, safety significance, performance of personnel and systems, and corrective action. The inspectors examined instrument recordings, computer printouts, operations journal entries, scram reports and had discussions with operations maintenance and engineering support personnel as appropriate.

On April 23, 1987, while attempting to fill the Residual Heat Removal (RHR) shutdown cooling piping, a low level condition in the reactor vessel occurred. The method for filling the RHR piping is to provide fill water from the condensate transfer system to the RHR system, listen for flow noise and when the flow noise stops, secure filling by shutting the fill valves. The condensate transfer system was not in the normal line up in that a normally open manual valve was tagged shut to stop leakage through the RHR system to the torus from the condensate transfer system. When the RHR fill valves were opened no flow noise was heard and the incorrect assumption that the RHR system was full was made. When the isolation valve from the reactor vessel to the RHR suction was opened flow from the reactor vessel filled the RHR system and resulted in the low reactor vessel indication. The resident inspectors are following the licensee's analysis of this event and any corrective which may result from this analysis.

On April 23, 1987, Unit 2 scrambled due to loss of the 2C condensate pump. The resulting low reactor vessel level caused automatic start of High Pressure Coolant Injection (HPCI) system which injected to the vessel. As required by the emergency plan a Notice of Unusual Event (NUE) was declared at 6:05 pm, CDT. The reactor vessel water level was stable and the NUE was terminated at 6:45 p.m., CDT, April 23, 1987. The plant functioned as designed.

Within the areas inspected, no violations or deviations were identified.

11. Review of Licensee Actions Taken in Response to GE Service Information Letter (SIL) No. 402 (TI 2500/12) (25012)

The resident inspector reviewed records and held discussions with cognizant licensee personnel to assess the adequacy of the licensee's responses to GE SIL 402. The SIL was issued subsequent to the torus vent header cracking event at Hatch Unit 2 in February 1984, and provided five recommendations to BWR licensees which had used their liquid nitrogen based inerting systems. In summary; the SIL recommended the evaluation of inerting system designs, evaluation of inerting system operations, testing for drywell / wetwell bypass leakage, nondestructive inspection of nitrogen lines and visual inspection of portions of the containment. The resident inspector completed a review of licensee responses to all of the GE recommendations with the exception of the recommendation for the nondestructive inspection of the nitrogen lines. Review of licensee actions taken in response to GE SIL 402 remains open pending completion of the review of the licensee's response to this recommendation.

Within this area, no violations or deviations were identified.