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

Report Nos.: 50-321/87-33 and 50-366/87-33

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: November 21 - December 18, 1987

Inspectors: Peter A Balmain for Peter Holmes-Ray, Senior Resident Inspector — 1/12/88 Date Signed

Peter A Balmain for John E. Menning, Resident Inspector — 1/12/88 Date Signed

A. Gooden, Radiation Specialist — 1/12/88 Date Signed

Accompanying Personnel: Randall A. Musser

Approved by: Marvin V. Sinkule — 1/14/88 Date Signed
Marvin V. Sinkule, Chief,
Project Section 3B
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 Testing Observation, Radiological Protection, Physical Security, Reportable Occurrences, Operating Reactor Events, Annual Emergency Exercise, Preparation for Refueling, and Follow-up on NRC Compliance Bulletin.

Results: No violations or deviations were identified.

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, Training and Emergency Preparedness Manager
M. Googe, Outages and Planning Manager
O. M. Fraser, Site Quality Assurance (QA) Manager
S. B. Tipps, Nuclear Safety and Compliance Manager
*J. Fitzsimmons, Security Manager
*D. Davis, Manager - General Support

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

NRC management on site during inspection period:

G. A. Belisle, Chief, Quality Assurance Programs Section, Region II
L. P. Crocker, Project Directorate II-3, NRR/DRP
T. Decker, Chief, Emergency Preparedness Section, Region II
F. Hawkins, Section Leader, Quality Operations, NRR
M. V. Sinkule, Chief, Project Section 3B, Region II

*Attended exit interview

2. Exit Interview (30703)

The inspection scope and findings were summarized on December 18, 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 inspector(s) during this inspection. The licensee acknowledged the findings and took no exception.

Item Number	Status	Description/Reference Paragraph
366/87-29-01	Open	URI - Review of Design Change Request 84-142 (Paragraph 3)
321, 366/87-33-01	Open	IFI - Verify that habitability surveys are conducted in accordance with established procedures (Paragraph 12)

321, 366/87-33-02	Open	IFI - Verify that fire brigade personnel are briefed prior to departing the OSC regarding health physics concerns and plant status (Paragraph 12)

3. Licensee Action on Previous Enforcement Matters (92702)

(Open) Unresolved Item* 50-366/87-29-01, Review of Design Change Request 84-142. An unresolved item (URI) was opened concerning a Design Change request (DCR) that was implemented in Unit 2 during the 1985 refueling outage. The licensee initially reported that DCR 84-142 could possibly have resulted in overloading of the 2A and 2C diesel generators during certain accident conditions. The licensee subsequently formed a team to thoroughly research and determine the impact, if any, of this DCR on safety. The draft report of this team's study indicates that the diesel generators would not have been overloaded under accident conditions. This URI will remain open pending detailed review by the resident inspectors of the final (yet to be issued) report.

4. 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 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 weekly basis. Portions of the control building, turbine building, reactor building, and outside areas were visited. Observations included general plant/equipment conditions, 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, missile hazards, instrumentation and alarms in the control room, and containment isolation.

No violations or deviations were identified.

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

5. Maintenance Observation (62703)

During the report period, the inspector(s) 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. The primary maintenance observations during this month are summarized below:

Maintenance Activity		Date
a.	Trouble shooting of oil leak on unit 2 Reactor Core Isolation Cooling system turbine	11/25/87
b.	Calibration of load cell on Unit 1 Refueling Bridge per procedure 52PM-F15-001 1S	12/01/87
c.	Replacement of fuel transfer canal transition assembly inflatable seals per procedure 52SP-082687-IZ-1-0S	12/05/87
d.	Five-year preventive maintenance on Unit 2 Reactor Protection system "B" motor-generator set	12/17/87

No violations or deviations were identified.

6. Surveillance Testing Observations (61726)

The inspector(s) 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 primary surveillance testing observations during this month are summarized below:

Surveillance Testing Activity		Date
1.	Reactor Core Isolation Cooling system Monthly Operability Testing per procedure 34SV-E51-002-2S (Unit 2)	11/25/87
2.	Reactor Water Cleanup system Differential Flow Instrument Functional Testing per procedure 57SV-G31-002-2 (Unit 2)	12/09/87

3. Control Rod Drive Hydraulic Control Unit Pressure Indicator and Switch Calibration per procedure 57CP-C41-001-1 (Unit 1) — 12/09/87

During monthly operability testing of the Unit 1 torus to drywell vacuum breakers on December 11, 1987, vacuum breaker 1T48-F323E failed to close after being opened. Technical Specification 3.7.A.4.a requires these vacuum breakers to be fully closed (except during testing). The licensee properly notified the NRC and reported that Unit 1 was in a condition requiring hot shutdown within 12 hours of the event. The licensee subsequently made various attempts to close the vacuum breaker, including evacuating the air line to the vacuum breaker's actuator. When the test switch at the local panel for vacuum breaker 1T48-F323F was depressed, 1T48-F323E was observed to close promptly as indicated by two redundant position indicating switches. The technical specification requirement to achieve hot shutdown within 12 hours was eliminated when 1T48-F323E closed. However, the licensee initiated Deviation Card 1-87-2088 indicating that potential wiring problems exist in the test circuitry for vacuum breakers 1T48-F323E and F. Subsequent to this surveillance difficulty control room personnel noted that 1T48-F323E opened and closed during routine venting of the drywell on December 12, 1987. This operation of 1T48-F323E indicated that it was capable of functioning in its normal manner (ie, self actuated on differential pressure). As discussed in Region II Report 321, 366/87-29, vacuum breakers 1T48-F323C and F did not test properly during monthly operability testing in Unit 1 on November 11, 1987. The resident inspectors will follow maintenance activities on all three of these torus to drywell vacuum breakers.

No violations or deviations were identified.

7. 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. The Unit-2 Main Steam Isolation Valve Leakage Control System was walked down in detail.

No violations or deviations were identified.

8. Radiological Protection (71709)

The resident inspectors reviewed aspects of the licensee's radiological protection program in the course of the monthly activities. The performance of health physics and other personnel was observed on various shifts to include: involvement of health physics supervision, use of radiation work permits, use of personnel monitoring equipment, control of high radiation areas, use of friskers and personal contamination monitors, and posting and labeling.

No violations or deviations were noted.

9. Physical Security (71881)

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: availability of supervision, availability of armed response personnel, protected and vital access controls, searching of personnel, packages and vehicles, badge issuance and retrieval, escorting of visitors, patrols and compensatory posts.

No violations or deviations were noted.

10. 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 the public health and safety were of utmost consideration.

11. Operating Reactor Events (93702)

The inspectors reviewed activities associated with the reactor event listed below. 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 and had discussions with operations maintenance and engineering support personnel as appropriate.

At 0719 on December 14, 1987, the Unit 2 "A" recirculation pump tripped while the unit was operating at 75 percent of rated power. The reduction in recirculation flow resulted in a sudden power reduction from 75 to approximately 49 percent of rated power. The "A" pump motor-generator set had tripped on low oil pressure due to a trip of the "A3" oil pump. The circuit breaker for the oil pump was subsequently found to be in the OFF position. Preliminary investigation by the licensee indicated that the control switch for this circuit breaker was most likely inadvertently bumped by personnel in the area. The inspector observed actions of control room personnel during recovery from this event. The inspector noted that personnel were aware of technical specification requirements and were using approved procedures during the recovery process. The "A" recirculation pump was returned to service at 0945 on December 14.

No violations or deviations were identified.

12. Annual Emergency Exercise (82301)

Observation of the annual exercise was conducted by a special NRC Evaluation Team. The primary focus of the Evaluation Team was to assess various licensee activities during the exercise to determine if the Emergency Response Facilities (ERFs) at Hatch meet the appropriate regulatory requirements. The results of the ERF evaluation will be discussed in a separate NRC report (Report Nos. 50-321,366/87-32). The details presented herein are specific to the actions or inactions by the licensee in responding to the simulated emergency. The inspectors observed the activation, staffing, and/or operation of the following ERFs: (1) Simulator Control Room, (2) Technical Support Center (TSC), (3) Operational Support Center (OSC), (4) Emergency Operations Facility (EOF), and (5) Emergency News Center (ENC). Activation and staffing was prompt in each of the facilities observed. Habitability surveys were conducted in the OSC, TSC, and EOF throughout the exercise. Inspectors in the TSC noted that although habitability surveys were being conducted at frequent intervals, the survey technique was not in accordance with good health physics and contamination survey practices. A Health Physics Technician was observed pulling the detector probe along the floor surface of the TSC using the probe cable. The licensee was informed that poor health physics practice as demonstrated by the TSC habitability survey personnel was considered an Inspector Followup Item. Inspector Followup Item (50-321, 366/87-33-01): Verify that habitability surveys are conducted in accordance with established procedures.

An inspector in the OSC noted that the Fire Brigade Team departed the OSC without being briefed by the OSC manager regarding the plant status or radioactive releases. When the Public Address (PA) announcement regarding a fire was made, members of the Fire Brigade stationed in the OSC departed immediately. This finding was also identified and discussed by the licensee during their controller/observer critique following the exercise. The licensee was informed that failure to brief teams prior to deployment from the OSC is considered an Inspector Followup Item. Inspector Followup Item (50-321, 366/87-33-02): Verify that Fire Brigade personnel are briefed prior to departing the OSC regarding health physics concerns and plant status.

The licensee's controller/observer critique held after the exercise was detailed and effective. Exercise player comments were included.

No violations or deviations were identified.

13. Preparation for Refueling (60705)

The inspector observed the inspection of new fuel by the licensee and verified that it was performed in accordance with the licensee's approved procedures. The applicable procedure is 42FH-ENG-004-2S, "New Fuel Inspection (8x8)". During these observations special attention was given to fuel handling, cleanliness, radiological survey, and gauging

requirements. The inspector observed the inspections of new fuel bundles with serial numbers LYH 481, 483, 576, 578, 579, and 580. No material deficiencies were observed by the licensee or the inspector during the inspection of these bundles.

No violations or deviations were identified.

14. Follow-up on NRC Compliance Bulletin 87-02 (TI 2500/26) (25026)

The purpose of the subject bulletin was to request that licensees 1) review their receipt inspection requirements and internal controls for fasteners and 2) independently determine, through testing, whether fasteners (studs, bolts, cap screws, and nuts) in stores at their facilities meet required mechanical and chemical specification requirements. Licensees were requested to test a minimum sample of ten (10) non-safety related fasteners and ten (10) safety-related fasteners from current, in use stock for testing. Additionally, for each fastener selected for testing, a nut that would typically be used with the fastener was to be tested. On December 4, 1987, the inspector participated in the licensee's selection of samples as requested by paragraph 2 of Bulletin 87-02. Since the licensee purchases an extremely limited number of non-safety related fasteners, only three (3) non-safety related fasteners and associated nuts were selected for testing. However, seventeen (17) safety related fasteners were selected for testing with the grade distribution representing past usage. During the sample selection process the inspector did not see any fasteners that did not have markings required by the applicable specification. However, a carriage bolt with a manufacturer's mark of interest (M) was observed and included in the licensee's sample for testing as Sample No. 7. The inspector observed that samples were taken from proper stock locations and that sample tagging was appropriate. The fasteners and associated nuts selected for testing are listed below:

Sample Number	Product Form	Grade	Safety Classification
1	Hex bolt	A-307	Non-safety
1	Hex nut	A-307	Non-safety
2	Hex bolt	A-320 Gr. B8	Safety
2	Nut	SA-194 Gr. 2H	Safety
3	Stud Bolt	SA-193 Gr. B8	Safety
3	Hex nut	SA-194 Gr. 2H	Safety
4	Hex bolt	A-449	Safety
4	Hex nut	A-563 Gr. BD	Safety
5	Hex bolt	A-490	Safety
5	Hex nut	SA-194 Gr. 2H	Safety

Sample Number	Product Form	Grade	Safety Classification
6	Stud bolt	SA-193 Gr. B7	Safety
6	Nut	SA-194 Gr.2H	Safety
7	Carriage bolt	SAE J429 Gr. 5	Safety
7	Nut	A-194 Gr. 2H	Safety
8	Stud bolt	SA-193 Gr. B7	Safety
8	Nut	A-194 Gr. 2H	Safety
9	Hex bolt	A-325 Type 1	Safety
9	Nut	A-194 Gr 2H	Safety
10	Stud bolt	A-193 Gr. B7	Non-safety
10	Hex nut	A-194 Gr. 2H	Non-safety
11	Hex bolt	A-325	Non-safety
11	Hex nut	A-194	Non-safety
12	Hex bolt	A-354 Gr. BD	Safety
12	Nut	A-194 Gr. 2H	Safety
13	Hex bolt	A-354 Gr. BD	Safety
13	Nut	A-194 Gr. 2H	Safety
14	Hex bolt	A-307 Gr. B	Safety
14	Hex nut	A-307 Gr. B	Safety
15	Stud bolt	SA-193 Gr. B7	Safety
15	Hex nut	SA-194 Gr. 2H	Safety
16	Stud bolt	A-193 Gr. B7	Safety
16	Hex nut	SA-194 Gr. 2H	Safety
17	Hex bolt	A-354 Gr. BD	Safety
17	Hex nut	A-194 Gr. 2H	Safety
18	Hex bolt	A-325 Type 1	Safety
18	Hex nut	A-194 Gr. 2H	Safety
19	Stud bolt	A-193 Gr. B7	Safety
19	Hex nut	SA-194 Gr. 2H	Safety
20	Bolt	A-325 Type 1	Safety
20	Hex nut	SA-194 Gr. 2H	Safety