



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

January 24, 2006

Southern Nuclear Operating Company, Inc.
ATTN: Mr. H. L. Sumner
Vice President - Hatch Project
P. O. Box 1295
Birmingham, AL 35201-1295

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT - NRC INTEGRATED INSPECTION
REPORT 05000321/2005005 AND 05000366/2005005

Dear Mr. Sumner:

On December 31, 2005, the U. S. Nuclear Regulatory Commission (NRC) completed an inspection at your Edwin I. Hatch Nuclear Plant, Units 1 and 2. The enclosed integrated inspection report documents the inspection results, which were discussed on January 5, 2006, with Mr. George Frederick and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel. Based on the results of this inspection, no findings of significance were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Malcolm T. Widmann, Chief
Reactor Projects Branch 2
Division of Reactor Projects

Docket Nos. 50-321, 50-366
License Nos. DPR-57 and NPF-5

Enclosure: Inspection Report 05000321/2005005 and
05000366/2005005
w/Attachment: Supplemental Information

cc w/encl: (see page 2)

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PUBLICLY AVAILABLE NON-PUBLICLY AVAILABLE SENSITIVE NON-SENSITIVE

ADAMS: Yes ACCESSION NUMBER: _____

OFFICE	RII:DRP	RII:DRP	RII:DRP	RII:DRS	RII:DRS	RII:DRS	RII:DRP
SIGNATURE	CWR1	DSS via email	JAH5 via email	MXM3 via email	LRM via email	JLK1 via email	GTM
NAME	CRapp:rcm	DSimpkins	JHickey	MMaymi	LMiller	JKreh	GMacDonald
DATE	01/23/06	01/18/06	01/18/06	01/17/06	01/13/06	01/12/06	01/19/06
E-MAIL COPY?	YES NO x	YES NO x	YES NO x	YES NO x	YES NO x	YES NO x	YES NO x

OFFICE	RII:DRS						
SIGNATURE	GBK1 via email						
NAME	GKuzo						
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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 50-321, 50-366

License Nos.: DPR-57 and NPF-5

Report Nos.: 05000321/2005005 and 05000366/2005005

Licensee: Southern Nuclear Operating Company, Inc.

Facility: Edwin I. Hatch Nuclear Plant

Location: P.O. Box 2010
Baxley, Georgia 31515

Dates: October 1, 2005 - December 31, 2005

Inspectors: D. Simpkins, Senior (Sr.) Resident Inspector
J. Hickey, Resident Inspector
M. Maymi, Reactor Inspector (Section 1R07)
L. Miller, Sr. Emergency Preparedness Inspector (Sections 1EP1 and 1EP4)
J. Kreh, Emergency Preparedness Inspector (Sections 1EP1 and 4OA1)
G. MacDonald, Sr. Project Engineer (Sections 1R12 and 4OA2.2)
G. Kuzo, Sr. Health Physicist (Section 4OA5)

Accompanying Personnel: R. Lewis, Reactor Inspector

Approved by: Malcolm T. Widmann, Chief
Reactor Projects Branch 2
Division of Reactor Projects

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SUMMARY OF FINDINGS

IR 05000321/2005-005, 05000366/2005-005; 10/01/2005-12/31/2005; Edwin I. Hatch Nuclear Plant, Units 1 and 2, quarterly integrated report.

The report covered a three-month period of inspection by resident inspectors, a reactor inspector, a project engineer, a health physicist and emergency preparedness inspectors. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July, 2000.

A. NRC-Identified and Self-Revealing Findings

No findings of significance were identified.

B. Licensee-Identified Violations

None

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REPORT DETAILS

Summary of Plant Status

Unit 1 began the inspection period at approximately 95% Rated Thermal Power (RTP) due to an isolated Moisture/Separator Reheater 2nd stage. The unit was returned to 100% RTP on October 10. On October 29, a main transformer fire resulted in a unit shutdown. The unit 1 was returned to service on November 15. Operation was restricted to about 86% RTP for the remainder of the inspection period.

Unit 2 operated at or near 100% RTP during the inspection period, except for a brief load reduction to 85% RTP due to a condensate pump motor cooling water leak.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather

a. Inspection Scope

Seasonal Readiness Review. The inspectors performed a seasonal review of licensee cold weather preparations. The inspectors reviewed licensee procedures DI-OPS-36-0989, Cold Weather Checks, 52PM-MEL-005-0, Cold Weather Checks, and walked down the completed portions of the procedures. In addition, the inspectors reviewed the Technical Specifications (TS), Final Safety Analysis Report (FSAR) and drawings H-13395, H-23395 and H-24193 to verify the following three systems would remain operable during peak low temperature winter months.

- Fire Protection
- Unit 1 Emergency Diesel Generators (EDGs)
- Unit 2 EDGs

Imminent Adverse Weather. The inspectors also reviewed licensee actions in response to an electrical storm with high winds on December 5. The inspectors reviewed licensee procedure 34AB-Y22-002-0, Abnormal Phenomena, and walked down external plant areas to ensure debris and loose materials were controlled to limit missile hazards, especially near switchyards and safety-related equipment.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment

a. Inspection Scope

Partial Walkdowns. The inspectors performed partial walkdowns of the following three systems when the opposite trains were removed from service. The inspectors checked system valve positions, electrical breaker positions, and operating switch positions to evaluate the operability of the opposite trains or components by comparing the position listed in the system operating procedure to the actual position. Documents reviewed are listed in the Attachment.

- EDGs 1A and 2A during 1B EDG maintenance
- 1A train of Plant Service Water (PSW) during 1D PSW Pump maintenance
- 2A EDG during 2C EDG surveillance

Complete System Walkdown. The inspectors performed a complete walkdown of the following system. The inspectors performed a detailed check of valve positions, electrical breaker positions, and operating switch positions to evaluate the operability of the redundant trains or components by comparing the required position in the system operating procedure to the actual position. The inspectors also interviewed personnel and reviewed control room logs to verify that alignment and equipment discrepancies were being identified and appropriately resolved. Documents reviewed are listed in the Attachment.

- Unit 1 Control Rod Drive (CRD) System

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

Fire Area Tours. The inspectors toured the following 12 risk significant plant areas to assess the material condition of the fire protection and detection equipment, verify fire protection equipment was not obstructed, and that transient combustibles were properly controlled. The inspectors reviewed the Fire Hazards Analysis drawings H-11846 and H-11847 to verify that the necessary fire fighting equipment, such as fire extinguishers, hose stations, ladders, and communications equipment, were in place. Documents reviewed are listed in the Attachment.

- Water Analysis Rooms
- Low Pressure Coolant Injection Inverter Room
- Control Room
- Control Room Roof
- Unit 1 Reactor Water Cleanup Equipment Room

- Unit 1 EDG Area
- Unit 1 4160 volt Switchgear Rooms
- Unit 2 EDG Area
- Unit 2 4160 volt Switchgear Rooms
- Intake Structure
- Railroad Airlock
- Service Water Valve Pits

Fire Drill Observation. The inspectors observed the response to the Unit 1 Main Transformer fire that occurred October 29, 2005. The inspectors reviewed licensee procedure 34AB-X43-001-1, Fire Procedure to verify proper response of the on-shift fire brigade. The inspectors checked proper use of protective clothing, self contained breathing apparatus, fire fighting equipment, fire pre-plans, proper fire fighting strategy, communications, and command and control.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures

a. Inspection Scope

Internal Flooding. The inspectors reviewed the FSAR and the individual plant examination to determine the plant areas that were susceptible to internal flooding events. The inspectors performed a detailed walkdown of the following five areas to determine potential sources of internal flooding, the condition of penetrations in the rooms, and the condition of the sumps in the rooms.

- Unit 2 Loop A Residual Heat Removal (RHR)/Core Spray (CS) Diagonal
- Unit 2 Loop B RHR/CS Diagonal
- Unit 2 Reactor Core Isolation Cooling (RCIC) Diagonal
- Unit 2 High Pressure Core Injection (HPCI) room
- Unit 2 CRD Diagonal

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance

a. Inspection Scope

Biennial Performance Review. The inspectors reviewed inspection records, test results, and other documentation to ensure that heat exchanger (HX) deficiencies that could mask or degrade performance were identified and corrected. The test procedures and records were also reviewed to verify that these were consistent with Generic Letter

89-13 licensee commitments, and industry guidelines. Risk significant heat exchangers reviewed included the EDG heat exchangers, control room air conditioning (A/C) units, and the HPCI and RCIC room coolers.

The inspectors reviewed site and corporate HX program procedures, minimum flow requirements, testing and cleaning frequencies, corrective maintenance and condition report history for all selected heat exchangers. In specific, the inspectors reviewed performance testing procedures, completed temperature effectiveness calculations and acceptance criteria, and performance monitoring trends for the HPCI and RCIC room coolers. For the EDG HXs (jacket coolant, lube oil, and scavenging air) performance monitoring temperature trends, work history log, EDG operability test records, inspection and cleaning records, and eddy current test reports and plugging limits were reviewed. In addition, the inspectors reviewed PSW and RHR Service Water pump motor coolers completed data collection procedures, and control room A/C units capacity verification completed procedures. These documents were reviewed to verify inspection methods were consistent with industry standards, HX design margins were being maintained, and performance of the HXs under the current maintenance frequency was adequate.

The inspectors also assessed the general health of the PSW system through a review documents listed in the Attachment and discussions with the PSW system engineer. These documents were reviewed to verify the design basis was being maintained and to verify adequate PSW system performance under current preventive maintenance, inspections and frequencies.

Condition reports (CRs) and corrective maintenance histories were reviewed for potential common cause problems and problems which could affect system performance to verify the licensee was entering problems into the corrective action program and initiating appropriate corrective actions. In addition, the inspectors conducted a walk down of all selected HXs and major components for the PSW system to assess general material condition and to identify any degraded conditions of selected components.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

Resident Quarterly Observation. The inspectors observed the performance of licensee simulator scenario LT-SG-50904-03 which included an electrically failed open safety/relief valve, CRD flow control valve failure, Instrument Air header failure and an anticipated transient without scram. The inspectors reviewed licensee procedures 10AC-MGR-019-0S, Procedure Use and Adherence, and DI-OPS-59-0896N, Operations Management Expectations, to verify formality of communication, procedure usage, alarm response, control board manipulations, group dynamics, and supervisory

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oversight. The inspectors attended the post-exercise critique of operator performance to assess if the licensee-identified performance issues were comparable to those identified by the inspectors. In addition, the inspectors reviewed the critique results from previous training sessions to assess performance improvement.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness

a. Inspection Scope

Quarterly Resident Review. The inspectors reviewed the following two maintenance activities associated with structures, systems, and components to assess the licensee's implementation of the Maintenance Rule (10 CFR 50.65) with respect to the characterization of failures and the appropriateness of the associated (a)(1) or (a)(2) classification. For the equipment issues identified below, the inspectors reviewed associated CRs, Maintenance Work Orders, Action Items, and the licensee's procedures for implementing the Maintenance Rule to verify equipment failures were being identified, properly assessed, and corrective actions established to return the equipment to a satisfactory condition. Documents reviewed are listed in the Attachment.

- Unit 1 Main Transformer Fire and Reactor Trip
- Unit 1 Remote Shutdown Panel Switch Failures

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control

a. Inspection Scope

The inspectors reviewed the following five Plan of the Day (POD) documents listed below to verify that risk assessments were performed prior to components being removed from service. The inspectors reviewed the risk assessment and risk management controls implemented for these activities to verify they were completed in accordance with licensee procedure 90AC-OAM-002-0, Scheduling Maintenance, and 10 CFR 50.65 (a)(4). For emergent work, the inspectors assessed if any increase in risk was promptly assessed and that appropriate risk management actions were implemented.

- POD for Week of 10/1-7
- POD for Week of 10/8-14
- POD for Week of 10/22-28

- POD for Week of 10/29-11/4
- POD for Week of 11/26-12/2

b. Findings

No findings of significance were identified.

1R14 Operator Performance During Non-Routine Evolutions and Events

a. Inspection Scope

For the two events described below, the inspectors observed operator actions and reviewed operator logs and computer data to verify proper operator actions were taken. Documents reviewed are listed in the Attachment.

- Fire in the 2A Isophase Bus Duct Cooling Fan
- Unit 1 Main Transformer Fire and Reactor Trip

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following four operability evaluations and compared the evaluations to the system requirements identified in the TS and the FSAR to ensure operability was adequately assessed and the system or component remained available to perform its intended function. Also, the inspectors assessed the adequacy of compensatory measures implemented as a result of the condition. Documents reviewed are listed in the Attachment.

- 1C/1D start-up transformer (SUT) operation without forced cooling
- Unit 2 EDG undervoltage relay circuit configuration
- Unit 1 RCIC Barometric Condenser Condensate Pump Failure
- Chemical Stability of Sodium Pentaborate Decahydrate at Elevated Temperatures

b. Findings

No findings of significance were identified.

1R16 Operator Work-Arounds

a. Inspection Scope

Cumulative Review. The inspectors reviewed conditions on both units that required compensation by the operators (work-arounds) to assess the increase in plant risk due to the cumulative effects of all the items combined. The inspectors focused on the ability of operators to operate equipment affected by the workarounds during a plant event. The inspectors also reviewed the Operations Burdens and Needs list to verify no actions that could be an operator workaround existed. The inspectors reviewed licensee procedure DI-OPS-61-1196N, Control and Tracking of Operator Work-Arounds. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing

a. Inspection Scope

For the following four post maintenance tests, the inspectors reviewed the test scope to verify the test demonstrated the work performed was completed correctly and the affected equipment was functional and operable in accordance with TS requirements. Following the maintenance activities, the inspectors reviewed equipment status and alignment to verify the system or component was available to perform the required safety function. Documents reviewed are listed in the Attachment.

- Unit 2 RHR Air Release Valve 2E11F295A Preventive Maintenance
- Unit 1 CRD Pump Suction Relief Valve 1C11F001B remove, test and re-install
- Unit 2 RHR Service Water Pump 2E11C001C replacement
- Unit 1 RHR Service Water Pump 1E11C001B replacement

b. Findings

No findings of significance were identified.

1R20 Refueling and Other Outage Activities

a. Inspection Scope

Forced Outage. The inspectors reviewed the Unit 1 forced outage schedule to verify the licensees use of risk management techniques and incorporation of operating experience and past lessons learned. Additionally, the inspectors reviewed the outage safety assessment to verify the licensee had developed contingency plans and these plans included sufficient equipment to maintain a defense-in-depth approach to safety. The inspectors routinely reviewed licensee procedure DI-OPS-57-0393N, Outage Safety

Assessment, to verify the licensee was correctly maintaining required equipment in service in accordance with the overall outage safety assessment. During the forced outage, the inspectors monitored licensee control over the outage activities listed below. Documents reviewed are listed in the Attachment.

- Plant cooldown to verify the cooldown rate did not exceed TS limits
- One clearance to verify implementation of the clearance process and the associated equipment was properly configured to support the function of the clearance
- Outage risk assessment meeting
- TS and licensee procedures to verify mode change requirements were met
- Walkdown of the fire impacted areas to assess the potential for collateral damage
- Plant startup, heatup, and power ascension
- Shutdown Margin determination
- Licensee identification and resolution of problems related to forced outage activities

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors reviewed licensee surveillance test procedures and either witnessed the test or reviewed test records for the following five surveillances to determine if the scope of the test adequately demonstrated the affected equipment was operable. The inspectors reviewed these activities to assess for preconditioning of equipment, procedure adherence, and equipment alignment following completion of the surveillance. The inspectors reviewed licensee procedure AG-MGR-21-0386N, Evolution and Pre-and Post-Job Brief Guidance, and attended selected briefings to determine if procedure requirements were met. Documents reviewed are listed in the Attachment.

Surveillance Tests

- 34SV-SUV-023-1, Jet Pump and Recirculation Flow Mismatch Operability
- 34SV-R43-001-2, Diesel Generator 2A Monthly Surveillance
- 34SV-C82-001-1, Remote Shutdown Panel Instrument Checks

In-Service Tests

- 34SV-E11-001-2, Residual Heat Removal Pump Operability

Reactor Coolant System Leakage Tests

- 34SV-SUV-019-2, Surveillance Checks

b. Findings

No findings of significance were identified.

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Cornerstone: Emergency Preparedness

1EP1 Exercise Evaluation

a. Inspection Scope

An in-office review of the exercise objectives and scenario submitted to the NRC was conducted to determine if the exercise would test major elements of the emergency plan as required by 10 CFR 50.47(b)(14). The onsite inspection consisted of the following review and assessment:

- The adequacy of the licensee's performance in the biennial exercise was reviewed and assessed regarding the implementation of the risk-significant planning standards (RSPS) in 10 CFR 50.47 (b) (4), (5), (9), and (10), which are emergency classification, offsite notification, radiological assessment, and protective action recommendations, respectively.
- The overall adequacy of the emergency response facilities with regard to NUREG-0696, Functional Criteria for Emergency Response Facilities, and Emergency Plan commitments. The facilities assessed were the simulator, Technical Support Center, Operations Support Center, and Emergency Operations Facility.
- Other performance areas besides the RSPS, such as the emergency response organization's (ERO) recognition of abnormal plant conditions, command and control, intra- and inter-facility communications, prioritization of mitigation activities, utilization of repair and field monitoring teams, interface with offsite agencies, and the overall implementation of the emergency plan and its implementing procedures.
- Past performance issues from NRC inspection reports and FEMA exercise reports to determine effectiveness of corrective actions as demonstrated during this exercise to ensure compliance with 10 CFR 50.47(b)(14).
- The post-exercise critique to evaluate the licensee's self-assessment of its ERO performance during the exercise and to ensure compliance with 10 CFR 50 Appendix E.IV.F.2.g.

Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level (EAL) and Emergency Plan Changes

a. Inspection Scope

The inspectors evaluated the associated 10 CFR 50.54(q) reviews associated with non-

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administrative emergency plan changes, implementing procedures changes, and EAL changes. The revisions covered the period from August 2004 to June 2005. The current Emergency Plan is revision 21. The applicable planning standard, 10 CFR 50.47(b)(4) and its related 10 CFR 50, Appendix E requirements were used as reference criteria. The criteria contained in NUREG-0654, Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, Revision 1, and Regulatory Guide 1.101, Emergency Planning and Preparedness for Nuclear Power Reactors, Revision 4, were also used as references. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation

a. Inspection Scope

The inspectors observed a licensed operator annual examination which the licensee credited for the emergency preparedness Drill and Exercise Performance performance indicator. The inspectors observed licensee activities in the simulator to verify implementation of licensee procedure 10AC-MGR-006-0, Hatch Emergency Plan. The inspectors reviewed the classification of the simulated event to verify these activities were conducted in accordance with licensee procedure 73EP-EIP-001-0, Emergency Classification and Initial Actions. The inspectors also reviewed licensee procedure 73EIP-073-0, Onsite Emergency Notification, to verify the proper offsite notifications were made. The inspectors reviewed the post-exam critique to assess the licensee's effectiveness in identifying areas of improvement. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification

a. Inspection Scope

The inspectors sampled licensee submittals for the PIs listed below procedures for the period July 2004 to June 2005. To verify the accuracy of the PI data reported during that period, PI definitions and guidance contained in and NEI 99-02, Revision 3, Regulatory Assessment Performance Indicator Guidelines, Rev. 2 were used to verify the basis in reporting for each PI.

Emergency Preparedness Cornerstone

- Drill and Exercise Performance (DEP)
- Emergency Response Organization Drill Participation
- Alert and Notification System (ANS) Reliability

The inspectors reviewed of a sample of drill and event records to verify the accuracy of the PI data for DEP. The inspectors reviewed selected training records to verify the accuracy of the PI data for ERO drill participation for personnel assigned to key positions in the ERO. The inspectors reviewed the licensee's records of periodic system tests to verify the accuracy of the PI data for ANS reliability. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems.1 Daily Condition Report Review

As required by NRC Inspection Procedure 71152, Identification and Resolution of Problems, and in order to help identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's corrective action program. This review was accomplished by reviewing the licensee's computerized database.

.2 Annual Sample Reviewa. Inspection Scope

The inspectors performed a detailed review of CRs listed in the Attachment for the Unit 1 main transformer failure and fire to verify the full extent of the issue was identified, an appropriate evaluation was performed, and appropriate corrective actions were specified and prioritized. The inspectors evaluated the CRs against the licensee's corrective action program (CAP) as delineated in licensee procedure NMP-GM-002, Corrective Action Program, and 10 CFR 50, Appendix B. The inspectors also performed walkdowns on portions of the electrical distribution system, interviewed personnel, and reviewed event data and evaluations to determine if the licensee identified all potentially affected equipment and entered the issues into the site CAP for resolution.

The licensee's evaluation of the effect of the Unit 1 main transformer fire and fire fighting efforts on the site electrical distribution system was reviewed. Condition Reports were reviewed for classification, operability/reportability, extent of condition, apparent cause and adequacy of completed and proposed short term and long term corrective actions. The inspectors evaluated the CRs against the CAP requirements in licensee procedure NMP-GM-002. Documents reviewed are listed in the Attachment.

b. Findings and Observations

No findings of significance were identified. The inspectors determined that the CRs were properly classified, described the observed conditions, and the corrective actions were appropriate and addressed the apparent causes. The inspectors observed that the licensee's data gathering efforts subsequent to the fire were not thoroughly coordinated in that the local alarm indications were not captured. The local alarm panel was de-energized during ground hunting efforts which reset the alarm data prior to documenting the status.

.3 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a review of the licensee's CAP and associated documents to identify trends which could indicate the existence of a more significant safety issue. The inspector's review was focused on repetitive equipment issues, but also considered the results of daily inspector CR item screening discussed in section 4OA2.1, licensee trending efforts, and licensee human performance results. The inspector's review nominally considered the six month period of July 2005 through December 2005, although some examples extended beyond those dates when the scope of the trend warranted. Inspectors also reviewed several CRs associated with operability determinations which occurred during the period. The inspectors compared and contrasted their results with the results contained in the licensee's two latest quarterly trend reports. Corrective actions associated with a sample of the issues identified in the licensee's trend reports were reviewed for adequacy. The inspectors also evaluated the trend reports against the requirements of the licensee's corrective action program as specified in licensee procedure NMP-GM-002, Corrective Action Program, and 10 CFR 50, Appendix B.

b. Assessment and Observations

No findings of significance were identified. The inspectors compared the licensee Quarterly Trend Report with the results of the inspectors' daily screening and did not identify any discrepancies or potential trends in the data that the licensee had failed to identify.

4OA3 Event Followup

- .1 (Closed) LER 05000366/2004-002, Unplanned Group 2 Primary Containment Isolation Signal (PCIS) resulting from a Water Level Transient Following a Manual Reactor Scram: On September 25, 2004, a manual load reduction was in progress on Unit 2. The load reduction was in preparation to repair the 2L Safety Relief Valve. The reactor was manually scrammed at approximately 35% power in accordance with 34GO-OPS-013-2, Normal Plant Shutdown. Following the reactor scram reactor water level decreased to the Group 2 PCIS actuation setpoint. The licensee has revised the Normal Plant Shutdown procedure to inform the operators that a Group 2 PCIS actuation is expected following a manual scram. This

condition was documented in CR 2004109411. No findings of significance were identified.

- .2 (Closed) LER 05000366/2005-003, Manual Reactor Scram Inserted in Response to Reactor Water Chemistry Event Caused by a Condenser Tube Leak: On May 23, 2005, Unit 2 reactor water quality was degrading due to a failed condenser tube plug. The licensee reduced reactor power in accordance with 34GO-OPS-014-2, Fast Reactor Shutdown. Due to continued degrading reactor water quality, the reactor was manually scrammed at approximately 57% power. An expected Group 2 PCIS actuation occurred due to reactor water level shrinkage. Reactor water level was restored using the reactor feedwater pumps. This condition was documented in CRs 2005105574 and 2005106318. No findings of significance were identified.

4OA5 Other

- .1 (Closed) Temporary Instruction (TI) 2515/161, Transport of Control Rod Drive (CRD) in Type A Packages: During a previous NRC inspection, the inspectors directly observed preparation and shipment of CRDs in Type A packages. In addition, the inspectors reviewed and discussed previous vendor/site procedural guidance and shipping logs of CRDs in Type A Packages with responsible staff. See NRC Inspection Report 0500321, 366/2005002 for additional information on this previous inspection. All inspection activities of this TI have been completed.

4OA6 Meetings, Including Exit

On January 5, 2006, the inspectors presented the inspection results to Mr. George Frederick and the other members of his staff who acknowledged the observations. The inspectors confirmed proprietary information was not provided or examined during the inspection.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

J. Dixon, Health Physics Manager
S. Douglas, Assistant General Manager - Plant Support
G. Frederick, General Manager - Nuclear Plant
M. Googe, Maintenance Manager
J. Hammonds, Operations Manager
J. Lewis, Training and Emergency Preparedness Manager
D. Madison, Assistant General Manager - Plant Operations
J. Thompson, Nuclear Security Manager
R. Varnadore, Engineering Manager

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Closed

05000366/2004-002	LER	Unplanned Group 2 PCIS resulting from a Water Level Transient Following a Manual Reactor Scram (Section 4OA3.1)
05000366/2005-003	LER	Manual Reactor Scram Inserted in Response to Reactor Water Chemistry Event Caused by a Condenser Tube Leak (Section 4OA3.2)
2515/161	TI	Transport of Control Rod Drive (CRD) in Type A Packages (Section 4OA5.1)

LIST OF DOCUMENTS REVIEWED

Section 1R04: Equipment Alignment

Drawings: D-11001, H-11600, H-17113, H-16064, H-16065
34AB-R43-001-1, Diesel Generator Recovery
34SO-R43-001-1, Diesel Generator Standby AC System
34SO-P41-001-1, Plant Service Water System
34SO-R43-001-2 Diesel Generator Standby AC System
C11-CRD-LP-00101, Control Rod Drive System
34GO-OPS-001-1, Plant Startup
34GO-OPS-013-1, Normal Plant Shutdown
34GO-OPS-065-0, Control Rod Movement

Section 1R05: Fire Protection

Drawings: A-43965 sheets 19B, 47B, 48B, 50B, 69B,, A-43966 Sheets 6B, 7B, 8B, 9B, 10B, 11B, 12B, 13B, 14B, 15B, 16B, 17B, 18B, 19B, 20B, 21B, 22B, 23B, 24B, 25B, 26B, 27B, 41B, 48B, 49B, 50B, 51B

Section 1R07: Heat Sink Performance**FSAR**

HNP-1-FSAR-10, Section 10.7, Plant Service Water System

HNP-2-FSAR-9, Section 9.2.1, Plant Service Water System

Procedures

40AC-ENG-013-0, Plant Service Water and RHR Service Water Piping Inspection Program, Rev. 4.1

42EN-ENG-026-0S, Service Water Systems Heat Exchanger Testing, Rev. 4

52PM-R43-015-0, Diesel Generator Turbocharger and Heat Exchanger Inspection, Rev. 6

63IT-TET-003-0, Biological Fouling Monitoring, Rev. 1.2

NMP-ES-012, Heat Exchanger Program, Rev. 1

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34GO-OPS-024-1, Equipment Rotation and Flushing of PSW and RHRSW Piping Deadlegs, completed 06/05, 07/05, 08/05

34SV-R43-011-1, Diesel Generator 1A 24 Month Operability Test, completed 05/04

34SV-R43-011-2, Diesel Generator 2A 24 Month Operability Test, completed 04/04

34SV-R43-012-2, Diesel Generator 1B 24 Month Operability Test, completed 05/04

34SV-R43-013-1, Diesel Generator 1C 24 Month Operability Test, completed 12/04

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42EN-ENG-026-0S, Service Water Systems Heat Exchanger Testing, completed 10/00, 01/05, 02/05

42EN-ENG-033-1S, PSW Flow Model Confirmation Data Collection, completed 10/99, 08/00, 08/02, 08/03

42IT-TET-012-1S, Plant Service Water and RHR Service Water Piping Inspection, completed 11/01, 02/02, 12/03

42IT-TET-012-2S, Plant Service Water and RHR Service Water Piping Inspection, completed 09/01, 02/02, 01/04

42IT-TET-014-1S, Safeguard Equipment Room Coolers Data Collection, completed 01/00, 10/00, 12/01, 12/03

42IT-TET-014-2S, Safeguard Equipment Room Coolers Data Collection, completed 01/00, 04/00, 10/01, 03/03

42IT-TET-015-1S, PSW and RHRSW Pump Motor Oil Cooler Data Collection, completed 03/04, 02/05

42SV-Z41-005-0, Control Room Capacity Verification, completed 01/00, 08/01, 07/03, 07/05

52PM-MME-006-0, Intake Structure Pit Inspection/Diving Activities, completed 01/03, 04/03, 06/04, 10/05

52SV-R43-001-0, Diesel, Alternator, and Accessories Inspection, completed 02/02, 11/02, 02/03, 01/04

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1A/B/C 2A/C EDG Coolers Jacket Coolant Temperature, Scavenging Air Temperature, Lube Oil Temperature and ECT Trends, 01/04-10/05

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 PSW Sample Microbiological Analysis, 04/03, 05/04
 EDG Coolers Work Log and Tube Plugging Information, Coolers B001A/C, B002A/C,
 B003A/B/C, B004A/B/C, B005A/B/C

Section 1R12: Maintenance Effectiveness

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MWOs: 1040356701, 1040579801, 1040636101, 1040691401, 1040691501, 1040691601,
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 H-23191, H-23123

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 Unit 1 24 KV Low Voltage Switchyard Damage Assessment
 Nuclear Electric Insurance Limited - Loss Control Standards, Section 8-2C, Transformer
 Testing Flowchart and Guidance
 Sequence of Events Recorder Report for October 29, 2005
 IEEE Standard C57.104-1991, IEEE Guide for the Interpretation of Gases Generated in
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 US Department of the Interior Bureau of Reclamation Transformer Diagnostics, Facilities
 Instructions Standards and Techniques Volume 3-31, June 2003

Section 1R14: Personnel Performance During Non-routine Plant Evolutions

34AB-X43-001-2, Fire Procedure
 31GO-OPS-010, Scram/Transient Analysis
 34AB-C71-001-1, Scram Procedure

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Section 1R15: Operability Evaluations

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 CRs: 2005103083, 2005107458, 2005111805
 Drawings: H13414, 23805, 23777, 23815
 57CP-CAL-116-2 Westinghouse Type CV7 Undervoltage Relay
 Material Safety Data Sheet for Sodium Pentaborate, Enriched

Section 1R16: Operator Work-Arounds

CRs: 2005100182, 2005100183, 2005104036
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Section 1R19: Post Maintenance Testing

CRs: 2005111142, 2005111016
34SV-E11-004-1, RHR Service Water Pump Operability
51GM-MNT-002-0S, Maintenance Housekeeping and Foreign Material Control
52PM-MME-019-0, Service & Circulating Water System Air Release Valve Maintenance
95IT-OTM-001-0 Maintenance Work Order Functional Test Guideline
52IT-MME-006-0, Safety Relief Valve Bench Test
51GM-MNT-033-0, Torque of Pressure Boundary Applications
42IT-TET-019-0, RHRSW Pump Performance Verification
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Section 1R20: Refueling and Outage Activities

Clearance: 1-CA-05-1S11-00106, 1C/1D SUT Non-Essential load management
34AB-C71-001-1, SCRAM Procedure
34GO-OPS-001-1, Plant Startup
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Section 1R22: Surveillance Testing

CRs: 2005109145, 2005108537, 2005110163, 2005107989, 2005110667, 2005109676,
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Section 1EP1: Exercise Evaluation**Plans and Procedures**

73EP-EIP-001-0, Emergency Classification and Initial Actions, Rev. 15.1
73EP-EIP-004-0, Duties of Emergency Duties, Rev. 9.1
73EP-EIP-005-0, On-shift Operations Personnel Emergency Director, Rev.8.0
73EP-EIP-011-0, Assembly, Accountability and Evacuation, Rev. 5.1
73EP-EIP-018.0, Prompt Offsite Dose Assessment, Rev. 8.2
73EP-EIP-054-0, Protective Action Recommendations to State, Rev. 6.1
73EP-EIP-063-0, Technical Support Center Activation, Rev. 8.1
73EP-EIP-073-0, Emergency Notification Form Information, Rev. 18.0
73EP-EIP-006-0S, Repair and Corrective Action During a Radiological Emergency, Rev. 2,
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73EP-EIP-014-0, Internal Survey Team Duties, Rev. 2.0
73EP-EIP-062-0, Operations Support Center Activation, Rev. 5.5

Records and Data from 10/05/2005 Exercise

OSC Team Dispatch Information Sheet for Teams 05-01 to 05-11
Hatch Nuclear Plant 10-5-2005 Evaluated Exercise - Management Debrief
Hatch Nuclear Plant Offsite Notification forms
Hatch Nuclear Plant TSC Dose assessment forms

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Section 1EP4: Emergency Action Level and Emergency Plan Changes

Edwin I. Hatch Nuclear Plant Unit 1 and Unit 2 Emergency Plan, Rev 19
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 LDCR 2005-022, Applicability Determination, Hatch Emergency Plan, Rev. 1
 LDCR 2005-022, 50.54(q) Evaluation Form, Hatch Emergency Plan, Rev. 01
 Edwin I. Hatch Nuclear Plant Unit 1 and Unit 2 Emergency Plan, Rev 21
 LDCR 2005-035, Applicability Determination, Hatch Emergency Plan, Rev. 0
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 LDCR 2002-037, Applicability Determination, Hatch Emergency Plan, Rev. 0
 LDCR 2002-037, 50.54(q) Evaluation Form, Hatch Emergency Plan, Rev. 0
 NRC Letter June 4, 2004, Changes to EAL Classifications

Section 1EP6: Drill Evaluation

Southern Nuclear Emergency Notification Form
 Drill/Exercise Participation and Performance Evaluation Form
 Simulator Scenario LR-SE-00012-17

Section 4OA1: Performance Indicator Verification**Records and Data**

Documentation package (scenario/time line/event notification forms/critique report) for ERO drill on 04/20/2005
 Documentation package (Control Room log/event time line/critique report) for Notification of Unusual Event declaration on 02/07/2005
 Documentation of DEP opportunities in Licensed Operator Requalification program for 08/12/2004, 08/26/2004, 10/07/2004
 Records of drill and exercise participation by selected ERO personnel, 2004-2005

Section 4OA2: Identification and Resolution of Problems**Annual Sample Review**

Procedure: NMP-OS-003, Operational Decision Making Issue Evaluation Process
 Operational Decision Making Evaluation Hatch unit 1 main Transformer Issue, Revision 5, September 12, 2005
 Unit 1 24 KV Low Voltage Switchyard Damage Assessment
 Nuclear Electric Insurance Limited - Loss Control Standards, Section 8-2C, Transformer Testing Flowchart and Guidance
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 IEEE Standard C57.104-1991, IEEE Guide for the Interpretation of Gases Generated in Oil-Immersed Transformers
 US Department of the Interior Bureau of Reclamation Transformer Diagnostics, Facilities Instructions Standards and Techniques Volume 3-31, June 2003

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Drawings: Georgia Integrated Transmission System Substation Diagram Hatch 500/230KV B2964-1 Revision 1, H-13351 Revision 21, H-23118, H-11193, H-23355, H-13243, H-23192, H-23191, H-23123