UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET SW SUITE 23T85
ATLANTA, GEORGIA 30303-8931

January 22, 2004

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

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT - NRC INTEGRATED INSPECTION REPORT 05000321/2003008, 05000366/2003008, AND 07200036/2003002

Dear Mr. Sumner:

On December 27, 2003, the US Nuclear Regulatory Commission (NRC) completed an inspection at your Hatch Nuclear Plant, Units 1 and 2. The enclosed integrated inspection report documents the inspection findings, which were discussed on January 9, 2004, with Mr. George Fredrick 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 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, 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/

Brian R. Bonser, Chief
Reactor Projects Branch 2
Division of Reactor Projects

Docket Nos.: 50-321, 50-366, 72-36
License Nos.: DPR-57, NPF-5, COC-1014

Enclosure: Inspection Report 05000321/2003008,
05000366/2003008, and 07200036/2003002
w/Attachment: Supplemental Information Inspection Report

cc w/encl: (see page 2)

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REGION II

Docket Nos:	50-321, 50-366, 72-36
License Nos:	DPR-57, NPF-5, COC-1014
Report No:	05000321/2003008, 05000366/2003008, and 07200036/2003002
Licensee:	Southern Nuclear Operating Company, Inc.
Facility:	E. I. Hatch Nuclear Plant
Location:	P.O. Box 2010 Baxley, Georgia 31515
Dates:	September 28, 2003 - December 27, 2003
Inspectors:	D. Simpkins, Senior Resident Inspector N. Garrett, Resident Inspector C. Rapp, Senior Project Engineer (Sections 1R05, 1R06, 1R16, and 4OA1) M. Maymi, Reactor Inspector (Section 1R07) S. Rose, Operations Engineer (Section 1R11) C. Smith, Senior Reactor Inspector (Section 4OA5)
Approved By:	Brian R. Bonser, Chief Reactor Projects Branch 2 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000321/2003-008, 05000366/2003-008, 07200036/2003-002; 09/28/2003 - 12/27/2003; Edwin I. Hatch Nuclear Plant, Units 1 & 2; routine integrated report.

The report covered a three-month period of inspection by resident inspectors, a senior project engineer, and an announced inspection by a regional reactor inspector. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described 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

REPORT DETAILS

Summary of Plant Status

Unit 1 operated at or near 100 percent rated thermal power (RTP) until October 21, 2003, when power was reduced to approximately 61 percent RTP to perform suppression testing to locate suspected leaking fuel rods. The unit was returned to 100 percent RTP on October 30. The unit operated at or near 100 percent RTP for the remainder of the inspection period except for a brief power reduction on November 19 following the loss of the Baxley Loop electrical supply.

Unit 2 operated at or near 100 percent Maximum Operating Power (MOP) during the inspection period with the exception of a brief power reductions on November 19 following the loss of the Baxley Loop electrical supply and on December 14 following a problem with the moisture separator reheater (MSR) control system. During the inspection period a power uprate was in progress which increased the MOP from 2763 megawatts thermal (MWt) to 2777 MWt.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection

a. Inspection Scope

The inspectors performed a seasonal review of the licensee cold weather preparations. The inspectors reviewed licensee procedure 52PM-MEL-005-0, Cold Weather Checks, and walked down portions of the emergency diesel generators (EDGs), plant service water (PSW) system, condensate storage tanks, the intake structure, and the fire protection system to assess condition of heat tracing, heaters, and insulation. The inspectors compared observed equipment condition and documented system deficiencies to determine system readiness for cold weather. The inspectors reviewed the Final Safety Analysis Report (FSAR) and Technical Specifications (TS) to verify that the these systems would remain operable during cold weather conditions. The inspectors also reviewed licensee actions in response to two separate freezing weather conditions during the inspection period via walk-down and control room logs. Condition Reports (CRs) reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment

a. Inspection Scope

Partial System Walk-Downs. The inspectors performed four partial system walk-downs of the following redundant trains or systems. The inspectors checked system valve positions, electrical breaker positions, and operating switch positions to evaluate the operability of the redundant trains or components by comparing the position listed in the system operating procedure to the actual position. Documents reviewed are listed in the Attachment.

- Unit 1 Residual Heat Removal Service Water (RHRSW) pumps 1A, 1B and 1D when the Unit 1C RHRSW pump was removed from service for repair.
- Unit 2 High Pressure Coolant Injection (HPCI) system when Unit 2 Reactor Core Isolation Cooling (RCIC) pump was removed from service for valve 2E51-F045 repair.
- Unit 2 RHRSW pumps 2B, 2C, and 2D when the 2A pump was removed from service to install the cooling water 4-way valve modification.
- Unit 1 Residual Heat Removal (RHR) Loop A when the Unit 1 Loop B was removed from service for a system outage.

Complete System Walk-Down. The inspectors conducted a detailed review of the alignment and condition of the Unit 1 RHR system. The inspectors compared actual system configuration to the associated licensee procedures, and system and component checklists to verify systems and components were correctly aligned. In addition, the system was walked down to verify that hangers and supports were functional and in good mechanical condition and the support systems were functional. The inspectors also reviewed the system health report, CRs, and maintenance work orders (MWOs) associated with the system to verify that issues were being appropriately resolved. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

Fire Area Tours. The inspectors toured 15 risk significant areas to assess the material condition of the fire protection and detection equipment and to verify fire protection equipment was not obstructed. The inspectors reviewed licensee procedure 40AC-ENG-008-OS, Fire Protection Program, and conducted area walk-downs to assess the licensee's control of transient combustibles. The inspectors also reviewed the Site Fire Hazards Analysis and applicable Pre-fire Plan drawings 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.

- Unit 1 Low Pressure Coolant Injection (LPCI) Room
- Unit 1 Northeast Switchgear Room
- Unit 1 Northwest Switchgear Room
- Unit 1 South Control Rod Drive (CRD) Area
- Unit 1 North CRD Area
- Unit 1 Southeast RHR and Core Spray (CS) Pump Room
- Unit 1 HPCI Pump Room
- Unit 2 Northeast RHR Pump Room
- Unit 2 RCIC Pump Room
- Unit 2 South CRD Area
- Unit 2 North CRD Area
- Unit 2 CRD Pump Room

- Control Room
- Intake Structure
- LPCI Inverter Room

Fire Drill Observation. The inspectors observed an unannounced fire drill conducted in the Unit 1 EDG building switchgear room 1E. The inspectors reviewed licensee procedure 34AB-X43-001-1, Fire Procedure, and the drill scenario to verify proper response of the on-shift fire brigade to a simulated fire. The inspectors checked proper use of protective clothing, self contained breathing apparatus, fire fighting equipment, fire pre-plans, proper fire fighting strategy including smoke removal and fire propagation checks, communications, and command and control. In addition, the inspectors attended the post-drill critique to assess if the licensee identified performance issues were comparable to those identified by the inspectors.

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures

a. Inspection Scope

The inspectors reviewed the FSAR and the Individual Plant Examination for analyzed internal flooding events. The inspectors reviewed the preventative maintenance and surveillance records for the Units 1 and 2 leak detection system level probes and isolation valves for the diagonal rooms, both reactor buildings, and torus rooms. The inspectors also performed a detailed walk-down of the following five areas to determine potential sources of interior flooding, the condition of penetrations in the rooms, and the condition of the sumps in the rooms. Documents reviewed are listed in the Attachment.

- Unit 2 Northeast diagonal - Loop A RHR/CS
- Unit 2 Southeast diagonal - Loop B RHR/CS
- Unit 2 Torus
- Unit 2 HPCI room
- Unit 2 RCIC room

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance

a. Inspection Scope

The inspectors reviewed inspection records, performance test results, preventive maintenance procedures, and other documentation to ensure that heat exchanger (HX) deficiencies that could mask or degrade performance were identified and corrected. Risk significant HXs reviewed included the RHR/CS room coolers, the main control room (MCR) condensing units, and the RHR heat exchangers. Recent performance test

results, test data collection procedures, minimum flow requirements calculation, and related maintenance work orders were reviewed for the RHR/CS room coolers. Also recent inspection records, preventive maintenance procedures and frequencies, tube plugging limits, and operability determinations were reviewed for the MCR condensing units and the RHR HXs.

The inspectors also reviewed the general health of the PSW and RHRSW systems via review of preventive maintenance procedures for the PSW and RHRSW strainers, intake suction bay inspection results, review of system health reports, and discussions with the PSW and RHRSW system engineer. CRs were reviewed for potential common cause problems and problems which could affect system performance to confirm that the licensee was entering problems into the corrective action program and initiating appropriate corrective actions. These CRs included actions regarding the MCR condensing unit tube plugging margins and operability, and RHR/CS room coolers degraded flow. In addition, the inspectors conducted a walk-down of all selected HXs and major components for the PSW and RHRSW systems to assess general material condition and to verify installed configuration was consistent with design drawings. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

Resident Quarterly Observation. The inspectors observed the performance of simulator scenario LT-SG-50438-08 which included a reactor scram with the loss of both recirculation pumps and a group 1 isolation followed by an aggressive plant cooldown. The inspectors reviewed procedures 10AC-MGR-019-0S, Procedure Use and Adherence, and DI-OPS-59-0896N, Operations Management Expectations, to verify that the operators met expectations for formality of communication, procedure usage, alarm response, control board manipulations, group dynamics, and supervisory oversight. The inspectors attended the post-exercise critique 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.

Annual Operating Test Results. On September 19, 2003, the licensee completed the comprehensive requalification written examinations and annual operating tests, required to be given to all licensed operators by 10 CFR 55.59(a)(2). The inspectors performed an in-office review of the overall pass/fail results of the written examinations, individual operating tests, and the crew simulator operating tests. These results were compared to the thresholds established in Manual Chapter 609 Appendix I, Operator Requalification Human Performance Significance Determination Process.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation

a. Inspection Scope

The inspectors reviewed the following two performance-based problems associated with structures, systems, and components to assess the licensee's implementation of 10 CFR 50.65 Maintenance Rule with respect to the characterization of failures and the appropriateness of the associated (a)(1) or (a)(2) classification. The inspectors reviewed operator logs, associated CRs, and the licensee's Maintenance Rule implementing procedures. The review was to determine if 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 2 RCIC Valve 2E51-F045
- 1C RHRSW Pump

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed the following seven Plan of the Day (POD) documents listed below to verify that risk assessments were performed prior to components being removed from service. In addition, when emergent work was identified, the inspectors held discussions with licensee personnel and walked down plant systems to verify that actions were taken to minimize the probability of an initiating event and maintain the functional capability of mitigating systems. CRs reviewed are listed in the Attachment.

- POD for Week 9/27-10/3 including Unit 2 RCIC valve maintenance schedule extension
- POD for Week 10/4-10
- POD for Week 10/25-31
- POD for Week 11/1-7
- POD for Week 11/15-21 including 1C RHRSW pump inoperability
- POD for Week 11/29-12/5
- POD for Week 12/20-26

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Non-Routine Plant Evolutions

a. Inspection Scope

For the three events described below, the inspectors reviewed operator logs and plant computer data, as applicable, and reviewed plant procedures to verify proper operator actions were taken. Documents reviewed are listed in the Attachment.

- Power suppression testing conducted on October 22-26, to identify leaking fuel rods.
- Loss of the Baxley Loop electrical supply on November 19.
- Unit 2 MSR dump valves failed open dumping steam directly to the main condenser on December 14.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following six 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 it's intended function. In addition, the inspectors assessed the adequacy of compensatory measures implemented as a result of the condition. Documents reviewed are listed in the Attachment.

- CR 2003111582, Overspeed Trip of the Unit 1 Reactor Building Crane
- CR 2003112279/2003112280, Unit 1 RHRSW Anchor Bolts Severely Corroded
- CR 2003110373, PSW Leak into the Unit 1 Drywell
- CRs 2003111439 and 2003111571, "A" Rod Block Monitor with too few inputs
- Unit 1 Reactor Building Crane Load Cell replacement
- CRs 2003110816 and 2003110817, Period Based Detection Algorithm for the Power Range Oscillation Monitors

b. Findings

No findings of significance were identified.

1R16 Operator Work-Arounds

a. Inspection Scope

Using NRC Inspection Procedure 71111.16, Operator Work-arounds, the inspectors performed a cumulative review of the licensee's operator work-arounds on both units to assess the increase in plant risk. The inspectors focused on the ability of operators to operate equipment affected by the work-arounds during a plant event. The inspectors

also reviewed the CR database to verify the licensee had entered these conditions into the corrective action program.

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications

a. Inspection Scope

The inspectors reviewed the implementation of Licensing Document Change Request 2002-94, Request for License Amendment Measurement Uncertainty Recapture Power Uprate, and Setpoint Design Change 03-6001, Setpoint Design Change for the Main Steam Line Flow - High and APRM STP-High/Rod Block, for a power uprate for Unit 2 to increase the maximum operating power from 2763 MWt to 2777 MWt. The inspectors reviewed the applicable FSAR sections, the 10CFR50.59 assessment, the implementing procedures, and MWOs to verify the design bases of the associated systems were not affected, there was no adverse affect on the reliability or functional capability of the associated systems, and that the modifications were properly installed. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing

a. Inspection Scope

The inspectors either observed personnel performance or reviewed completed test packages for the following six maintenance and testing activities to verify procedural requirements were met. The inspectors also reviewed the activities to determine if the scope of testing demonstrated that the work performed was completed correctly and the affected equipment was functional and operable. Following the maintenance activities, the inspectors reviewed equipment status and alignment to verify the system or component was available to perform the required function. Documents reviewed are listed in the Attachment.

- MWO 2030497301, Repair of Unit 2 RCIC, 2E51-F045 Valve
- MWO 10302965, Load Test of the Unit 1 Reactor Building Crane
- MWO 1030839701, Repair PSW Piping to MCR Air Conditioners
- MWO 10201805, Replacement of 1P41-F1248
- MWO 20202328, Install 4-Way Backflush Valve on 2A RHRSW Pump Oil Cooler
- MWO 1029001503, Replace 1C RHRSW Pump

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors reviewed the following five surveillance test procedures and either witnessed the tests or reviewed test records to determine if the scope of the test adequately demonstrated that the affected equipment was operable. The inspectors reviewed the activities to assess for pre-conditioning of equipment, procedure adherence, and valve 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.

- 34SV-R43-003-1, Diesel Generator 1C Monthly Test
- 34SV-E41-002-02 HPCI Pump Operability
- 34SV-C71-002-1S RPS Channel Functional Test
- 34SV-C71-00401 Reactor Manual Scram Functional Test
- 34SV-E21-001-1, Core Spray Pump Operability (IST)

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the following four temporary modifications (TMM) and assessed each evaluation using criteria defined in licensee procedure 40AC-ENG-018-0S, Temporary Modification Control. In addition, the 10 CFR 50.59 evaluations were assessed using the design basis information provided in the FSAR to verify the modifications did not affect the functions of these systems. The inspectors also reviewed the TMMs to verify they were installed in accordance with the requirements. Documents reviewed are listed in the Attachment.

- TMM 2-03-016, Install a resistor and open links to disable the Main Turbine Bearing RTD 2N32-N420
- TMM 2-02-030, Replace pipe support 2N21-C-H99
- TMM 2-03-021, Remove valve internals for AOV 2P41-F381B, PSW to Turbine Building Chiller
- TMM 2-03-018, Replace two U-bolt supports for PSW piping

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation

a. Inspection Scope

The inspectors observed an emergency plan drill conducted on October 22, 2003. The inspectors observed licensee activities in the simulator and EOF to verify implementation of procedure 10AC-MGR-006-0S, Hatch Emergency Plan. The inspectors reviewed the classification of the simulated event and the development of protective action recommendations to verify these activities were conducted in accordance with procedure 73EP-EIP-001-0, Emergency Classification and Initial Actions. The inspectors also reviewed procedure 73EIP-073-0, Onsite Emergency Notification, to verify the proper offsite notifications were made. The inspectors attended the post-exercise critique to assess the licensee's effectiveness in identifying areas of improvement.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification

a. Inspection Scope

The inspectors sampled licensee submittals for the performance indicators (PI) listed below to verify the accuracy of the data reported. The PI definitions and the guidance contained in NEI 99-02, Regulatory Assessment Indicator Guideline, Rev. 2 and licensee procedure 00AC-REG-005-0S, Preparation And Reporting Of NRC PI Data, were used to verify procedure and reporting requirements were met.

Initiating Events Cornerstone
- Unplanned Scrams
- Scrams with Loss of Normal Heat Removal
- Unplanned Power Changes per 7000 Critical Hours

The inspectors reviewed raw PI data collected between October 2002 and September 2003 for each of the indicators identified and compared graphical representations from the most recent PI report to the raw data to verify the data was included in the report. The inspectors also examined a sampling of operations logs and procedures to verify the PI data was appropriately captured for inclusion into the PI report and the individual PIs were correctly calculated.

Mitigating Systems Cornerstone
- Safety System Functional Failures

The inspectors reviewed raw PI data collected between October 2002 and September 2003 and compared graphical representations from the most recent PI report to the raw data to verify it was correctly included in the report. The inspectors also examined a sampling of operations logs and procedures to verify the PI data was appropriately captured for inclusion into the PI report and the PI was correctly calculated.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems

a. Inspection Scope

Daily Condition Report Review. As required by 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 daily condition report summary and accessing the licensee's computerized database.

Annual Sample Review. The inspectors performed a detailed review of CRs 2003000628, 2003002716, and 2003006816. These CRs were associated with the repetitive failure of safety related relays installed in the MCR air conditioning system. The inspectors also performed a detailed review of CR 2003000051 and the resulting apparent cause evaluation. This CR was associated with the failure of the safety related scram discharge volume (SDV) outboard drain valve. These CRs were reviewed to ensure 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 as delineated in licensee procedure NMP-GM-002, Corrective Action Program, and 10 CFR 50, Appendix B.

b. Findings and Observations

No findings of significance were identified; however, the inspectors identified the following observations during the detailed CR review.

On January 22, 2003, CR 2003000628 was written to document the failure of the 'A' MCR air conditioner. During troubleshooting, the licensee determined that three of the five Krauss and Niemer safety related relays in the control logic system had failed. The licensee sent two of the failed relays to the vendor for analysis. The vendor determined that the failure mechanism was a previously identified problem with the manufacturing process for relays manufactured prior to and during 1999. On March 8, 2003, CR 2003002716 was written to document the results of the vendor analysis for the failed relays. The CR was assigned as a SL5 which was used for conditions not adverse to quality. The CR was closed on March 10, 2003. The licensee did not identify CR

2003002716 as being potently reportable under 10 CFR 21. Consequently, the CR was not assigned the proper severity level (SL) in accordance with licensee procedure NMP-GM-002. Following a subsequent failure of additional Krauss and Niemer safety related relays in the 'B' MCR air conditioner, CR 2003006816 was written on June 17, 2003, to address the failure to perform a 10 CFR Part 21 evaluation based on the information supplied by the vendor. The licensee obtained additional information and analysis from the vendor and subsequently completed an evaluation that determined the failed relays did not fall under the Part 21 reportability requirements.

4OA3 Event Follow-up

1. (Closed) LER 50-366/2003-001, Plant Service Water Valve Found Closed Requiring Emergency Core Cooling Systems Declared Inoperable

On March 27, 2003, the licensee found PSW valve 2P41-F063 closed. With this valve closed PSW flow through the reactor building emergency core cooling system (ECCS) room coolers was isolated. With the loss of the room coolers the ECCS systems were considered to be inoperable. During restoration of a system tagout, the valve was placed in the open position as indicated by the valve position indicator. However, the valve disc had separated from the stem and did not open. For the plant conditions, two low pressure ECCS systems were required to be operable. The licensee performed an extent of condition review to determine if any other similar valve could be mispositioned as the result of the same failure. Additional corrective actions, completed or planned included additional operator training on expected system response, revision of the valve maintenance procedure, and a design change proposal to remove this and a similar Unit 1 valve from the system during the next refueling outage. No new findings of significance were identified during the inspectors' review. The lack of PSW was evaluated and found not to cause a loss of function in the supported equipment. This condition constitutes a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the NRC's Enforcement Policy. The licensee documented the problem in CR 2003003966.

4OA5 Other

1. Annual Inspection of Independent Fuel Storage Installation

a. Inspection Scope

The inspectors observed loading of spent fuel into the spent fuel cask, cask movements on the refueling floor, and welding operations to seal the cask after loading was complete. The inspectors reviewed the procedures for spent fuel cask operation. In addition, the inspectors reviewed the records to track spent fuel bundles movement from the spent fuel pool to the cask and final placement of the filled cask in the spent fuel storage facility. The inspectors reviewed spent fuel records to verify they are controlled and a physical inventory of spent fuel is maintained. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

2. (Closed) URI 50-366/03-06-06: Inspector Concerns Associated with Implementation of DCR 91-134. The above URI was opened in connection with plant modification DCR 91-134 implementation of the one-out-of-two logic specified in the design change package. By letter dated October 1, 2003, the licensee provided additional information concerning the logic that was installed by plant modification DCR 91-134. The inspector reviewed the additional information and concluded that the installed logic and its description was consistent with industry practice. The additional information also demonstrated that the design objective specified in the design change package was in accordance with the design input requirements delineated in the Design Input Record form.

4OA6 Meetings, Including Exit

Exit Meeting Summary

On January 9, 2004, the inspectors presented the inspection results to Mr. George Fredrick and the other members of his staff who acknowledged the findings. The inspectors confirmed that proprietary information was not provided or examined during the inspection.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

J. Anderson, Health Physics and Chemistry Manager
J. Betsill, Engineering Support Manager
V. Coleman, Safety Audit and Engineering Review Supervisor
D. Davis, Plant Administration Manager
R. Dedrickson, Assistant General Manager - Plant Support
G. Frederick, General Manager - Nuclear Plant
M. Googe, Performance Team Manager
J. Hammonds, Operations Manager
J. Lewis, Training and Emergency Preparedness Manager
D. Madison, Assistant General Manager - Plant Operations
R. Reddick, Site Emergency Preparedness Coordinator
J. Thompson, Nuclear Security Manager
S. Tipps, Nuclear Safety and Compliance Manager
R. Varnadore, Outage and Planning Manager
K. Underwood, Corrective Action Program Manager

NRC Personnel

B. Bonser, Chief, Reactor Projects Branch 2

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Closed

50-366/2003-001	LER	Plant Service Water Valve Found Closed Requiring Emergency Core Cooling Systems Declared Inoperable (Section 4OA3)
50-366/03-06-06	URI	Inspector Concerns Associated with Implementation of DCR 91-134 (Section 4OA5)

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection
CRs: 2003000735, 2003110106, 2003110107, 2003110108, 2003111394, 2003111115, 2003111855, 2003112236, 2003112600

Section 1R04: Equipment Alignment
Plant Drawings
H-16329, H-16330, H-21039, H-26014, H-26015, H-26020 & H-26021

Procedures
34SO-E41-001-2, High Pressure Coolant Injection (HPCI) System
34SO-E11-010-1, Residual Heat Removal System
34SO-E11-010-2, Residual Heat Removal System
SI-LP-00701-02, Residual Heat Removal System Description

Section 1R05: Fire Protection
Fire Areas
0501, 2203A, 2205A, 0028, 1101M, 1101N, 1203F, 1205F, 1203B, 1205Z, 2203B, 2203C, 2203F, 2205F, 2205C

Plant Drawings
A-43965 Sheets 48A/B, 49 A/B, 104 A/B and 105 A/B
A-43966, Sheets 27A/B

Section 1R06: Flood Protection Measures
CRs: 2002011356, 2003006862, 2002011163, 2002011695, 2002011645
Drawings: H-16039, H-26075, H-26076

Section 1R07: Heat Sink Performance
Final Safety Analysis Report
HNP-2-FSAR Section 6.4, Habitability Systems (HNP -1 and HNP - 2)
HNP-2-FSAR Section 9.2.1, Plant Service Water (PSW) System
HNP-2-FSAR Section 9.2.7, Residual Heat Removal Service Water (RHRSW) System
HNP-2-FSAR Section 9.4, Air Conditioning, Heating, Cooling, and Ventilation Systems
HNP-1-FSAR Section 10.6, Residual Heat Removal Service Water System
HNP-1-FSAR Section 10.7, Plant Service Water System

Technical Requirements Manual
Hatch Unit 1 Section T 3.7.2, ECCS and RCIC Room Coolers
Hatch Unit 2 Section T 3.7.2, ECCS and RCIC Room Coolers

Drawings: H-11609, H-16011, H-16012, H-21033, H-21039, H-26050, H-26051

Calculations
69 (Vol 999, Binder 999), Minimum PSW Flow Requirements for Various 2T41 and 2Z41 Room Coolers, Rev. 0
212 (Vol. 5, Binder 014), Plant Service Water System Heat Exchanger Performance, Rev. 4

Procedures
20AC-ADM-002-0, Quality Assurance Records Administration
40AC-ENG-013-0S, Plant Service Water and RHR Service Water Piping Inspection Program,
42IT-TET-012-2S, Plant Service Water and RHR Service Water Piping Inspection
42IT-TET-014-1S, Safeguard Equipment Room Coolers Data Collection
42IT-TET-014-2S, Safeguard Equipment Room Coolers Data Collection
42EN-ENG-026-0S, Service Water Systems Heat Exchanger Testing
52CM-MME-058-0S, RHR and Standby Diesel Service Water Strainer Maintenance,
52PM-E11-009-0S, RHR Heat Exchanger Preventive Maintenance
52PM-MME-006-0, Intake Structure Pit Inspection/Diving Activities
52PM-P41-035-0S, Plant Service Water Strainer Maintenance
52PM-Z41-002-1, Control Room Air Conditioning System Maintenance
60AC-HPX-010-0, Chemistry Program
63IT-TET-003-0S, Biological Fouling Monitoring

Completed Procedures
42IT-TET-014-1S, Attachment 1, Safeguard Equipment Cooler Data - Coolers 1T41-B002A, 1T41-B002B, and 1T41-B003A, Rev. 0, completed 10/16/03
42IT-TET-014-2S, Attachment 1, Safeguard Equipment Cooler Data - Coolers 2T41-B002A, 2T41-B002B, 2T41-B003A, and 2T41-B003B, Rev. 0, completed 01/09/03, 01/10/03, 03/27/03
42EN-ENG-026-0S Attachment 4, Temperature Effectiveness Method - Coolers 1T41-B002A, 1T41-B002B, 1T41-B003A, 1T41-B003B, 2T41-B002A, 2T41-B002B, 2T41-B003A, and 2T41-B003B, Rev. 4, completed 01/09/03, 01/10/03, 03/27/03, 10/16/03
52PM-MME-006-0, Attachment 2, Inspection Point Map, Rev. 6, completed 05/02, 04/29/03

CRs: 2003000243, 2003002130, 2003005252, 2003111268, and 2003111276

Completed Maintenance Work Orders (MWOs)
MWO 1030050101, MWO 1030194001, MWO 1020245301, MWO 1020245401
MWO 1020245501, MWO 2970321101, MWO 1960383501, MWO 1000123501
MWO 2030000501, MWO 2030007001

Miscellaneous
System Health Report, Plant Service Water System 1P41/2P41, 2nd Quarter 2003
System Health Report, Residual Heat Removal System 1E11/2E11, 2nd Quarter 2003
Engineering Judgement EJ-0610, Evaluation of Plugging of Condenser Tubes in the Main Control Room Air Conditioning Unit 1Z41B008A,
Operability Determination CR # 2003002130, Main Control Room Conditioning System Tubes Plugged, Rev. 1
Generic Letter 89-13 Initial Actions Summary Report, Issue 2, 05/92
Commitment 1990300593, GL 89-13 Commitment, Rev. 10/09/03
S-18840, RHR Heat Exchanger 1E11B001A & B Specification Sheet
S-19639, Cooling Unit 1T41-B002A Design Data
S-19640, Cooling Unit 1T41-B003A Design Data
S-25700, RHR Heat Exchanger 2E11B001A & B Specification Sheet

Section 1R12: Maintenance Rule Implementation

Drawings

H-26024, H-26023, S-61358, H-27679, H-27879, H-27673 , S-25140, D-11004, S-51356, S-56317

MWOs

1030979601, 103097603, 103097606, 103097607, C019004512, 1029001502, 1020361001
1020360301, 1020283401, 1020281701, 1020266401, 1020252101, 1020032501
2979004013, 2030497301, 2030184701, 2030438701

CRs

2001002557, 2002007064, 2003008116, 2003110437, 2003110682, 2003110689, 2003110690
2003110860, 2003110937, 2003111001, 2003111945, 2003112330, 2003112279

Plant Procedures

52CM-MME-067-0, Globe Valve Maintenance
50AC-MNT-012-0S, Troubleshooting Plan
52PM-E11-005-1, Unit 1 RHR/Service Water Pump and Motor Maintenance
34SV-E11-004-1, RHR Service Water Pump Operability

Section 1R13: Maintenance Risk Assessments and Emergent Work Evaluation

CRs: 2001007605, 2001010002, 2001010606, 2002001950, and 2003005974

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

Plant Procedures

42CC-ERP-022-0S, Flux Tilt Rod Movements
34AB-R81-001-0, Loss of Baxley Loop
34AB-N21-001-2, Loss of Feedwater Heating

Drawings: H-21023 and H-21025
CRs: 2003111365, 2003111571, 2003113100

Section 1R15: Operability Evaluations

Plant Procedures

34GO-OPS-065-0, Control Rod Movement
34SV-C51-003-1S, LPRM Operational Status

CRs: 2002011894, 2002012106, 2003000488, and 2003111483

Section 1R17: Permanent Plant Modifications

Plant Procedures

57SV-C51-001-0, APRM FT
57CP-CAL-102-2, Analog Master/Slave Trip Unit Calibration
57CP-CAL-069-2, Rosemount Model 1151 Transmitters
10AC-MGR-016-0, Infrequently Performed Tests and Evolutions (IPTE)
34SV-SUV-020-0, Core Parameter Surveillance
64CH-SAM-025-0, Reactor Coolant Sampling and Analysis
34SP-09-18-03-BG-1-2, Unit 2 Feedwater Level Control Dynamic Test for Appendix K Power Uprate

34SP-09-15-03-BG-1-2, Unit 2 EHC Pressure Regulator Test for Appendix K Power Uprate
34SP-09-16-03-BG-1-2, Unit 2 Appendix K Power Uprate Testing

MWOs: 2030469802, 2030376108, 2030376118, 2030469803, 2039600202, and 2039600203

Section 1R19: Post Maintenance Testing

Plant Procedures
34SV-E51-001-2, RCIC Valve Operability
34SV-E51-002-2, RCIC Pump Operability
42EN-ENG-014-0S, ASME Section XI Repair/Replacement
42IT-TET-004-0S, Operating Pressure Testing of Piping and Components
95IT-OTM-001-0, Maintenance Work Order Functional Test Guideline
DCR 03-009 Unit 1 Reactor Building Crane Upgrade

CR's: 2001006761, 2001007828, 203000389, 2003004220, 2003005193, and 2003111544, 2002011894

Section 1R22: Surveillance Testing

CRs 2003005539, 2003005816, 2003007756, 2003007759, and 2003006945

Section 1R23: Temporary Plant Modifications

MWOs: 2031271, 2023599, 2030257, 20301507, 20301408
Drawings: H-23634, H-23464, S-43695, H-21034

Section 4OA2: Identification and Resolution of Problems

CRs: 1997002603, 2000005739, 2002011203, and 2003000051

Section 4OA5: Independent Spent Fuel Storage Installation

Plant Procedures
52SV-F18-006-0, Hi-Storm/Trac Fuel Loading
42FH-ERP-014-0S, Fuel Movement

Miscellaneous
Fuel Assembly Certification Data Sheets, Cask Load Sequence Number 2002-01
FSH-02-076, Fuel Loading for Cask Load 2002-01, 2002 Hatch Dry Storage Campaign