



UNITED STATES
NUCLEAR REGULATORY COMMISSION

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

July 30, 2007

Southern Nuclear Operating Company, Inc.
ATTN: Mr. Dennis R. Madison
Vice President - Hatch
Edwin I. Hatch Nuclear Plant
11208 Hatch Parkway North
Baxley, GA 31513

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT - NRC INTEGRATED INSPECTION
REPORT 05000321/2007003 AND 05000366/2007003

Dear Mr. Madison:

On June, 30 2007, 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 July 12, 2007, with yourself 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. However, two licensee-identified violations, which were determined to be of very low safety significance, are listed in the report. NRC is treating these violations as non-cited violations (NCVs) consistent with Section VI.A.1 of the NRC Enforcement Policy because of the very low safety significance and because you have entered them into your corrective action program. If you deny these NCVs, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory commission, ATTN.: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-001; and the NRC Resident Inspector at the Hatch Nuclear Plant.

SNC

2

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/

Scott M. Shaeffer, 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 05000321/2007003 and
05000366/2007003
w/Attachment: Supplemental Information

cc w/encl: (See page 3)

SNC

2

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/

Scott M. Shaeffer, 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 05000321/2007003 and
05000366/2007003
w/Attachment: Supplemental Information

cc w/encl: (See page 3)

X PUBLICLY AVAILABLE NON-PUBLICLY AVAILABLE SENSITIVE X NON-SENSITIVE

ADAMS: X Yes ACCESSION NUMBER: _____

OFFICE	RII:DRP	RII:DRP	RII:DRP	RII:DRS	RII:DRS	RII:DRS	RII:DRS
SIGNATURE	CWR /RA/	JAH /via tele/	DSS /via email/	WRL /via email/	NXM /via email/	CAP /via email/	GHG /via email/
NAME	CRapp	JHickey	DSimpkins	RLewis	NMerriweather	CPeabody	GGardner
DATE	07/25/2007	07/25/2007	07/25/2007	07/24/2007	07/25/2007	07/24/2007	07/25/2007
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: C:\FileNet\ML072120177.wpd

SNC

3

cc w/encls:

J. T. Gasser
Executive Vice President
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

L. M. Stinson
Vice President , Fleet Operations Support
Plant Hatch
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

Raymond D. Baker
Manager Licensing - Hatch
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

Arthur H. Dombay, Esq.
Troutman Sanders
Electronic Mail Distribution

Laurence Bergen
Oglethorpe Power Corporation
Electronic Mail Distribution

Moanica Caston
Southern Nuclear Operating Company, Inc.
Bin B-022
P. O. Box 1295
Birmingham, AL 35201-1295

Director
Department of Natural Resources
205 Butler Street, SE, Suite 1252
Atlanta, GA 30334

Manager, Radioactive Materials Program
Department of Natural Resources
Electronic Mail Distribution

Chairman
Appling County Commissioners
69 Tippins St., Suite 201
Baxley, GA 31513

Resident Manager
Oglethorpe Power Corporation
Edwin I. Hatch Nuclear Plant
Electronic Mail Distribution

Senior Engineer - Power Supply
Municipal Electric Authority
of Georgia
Electronic Mail Distribution

Reece McAlister
Executive Secretary
Georgia Public Service Commission
244 Washington Street, SW
Atlanta, GA 30334

Distribution w/encl: (See page 4)

SNC

4

Letter to Dennis R. Madison from Scott M. Shaeffer dated July 30, 2007

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT - NRC INTEGRATED INSPECTION
REPORT 05000321/2007003, 05000366/2007003

Distribution w/encl:

R. Martin, NRR
C. Evans, RII EICS
L. Slack, RII EICS
OE Mail
RIDSNRRDIRS
PUBLIC

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 50-321, 50-366

License Nos.: DPR-57 and NPF-5

Report Nos.: 05000321/2007003, 05000366/2007003

Licensee: Southern Nuclear Operating Company, Inc.

Facility: Edwin I. Hatch Nuclear Plant

Location: Baxley, Georgia 31515

Dates: April 1 - June 30, 2007

Inspectors: D. Simpkins, Senior Resident Inspector
J. Hickey, Senior Resident Inspector
C. Rapp, Senior Project Engineer
R. Lewis, Reactor Inspector (Sections 1R02 and 1R17)
N. Merriweather, Senior Reactor Inspector (Sections 1R02 and 1R17)
C. Peabody, Reactor Inspector (Sections 1R02 and 1R17)
G. Gardner, Reactor Inspector (Sections 1R02 and 1R17)

Approved by: Scott M. Shaeffer, Chief
Reactor Projects Branch 2
Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000321/2007-003, 05000366/2007-003; 04/1/2007-06/30/2007; 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 project engineer, and four reactor inspectors. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, Reactor Oversight Process.

A. NRC-Identified and Self-Revealing Findings

No findings of significance were identified.

B. Licensee-Identified Violations

Violations of very low safety significance, which were identified by the licensee, have been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. These violations and corrective actions are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

Unit 1 operated at or near 100% Rated Thermal Power (RTP) for the inspection period.
Unit 2 operated at or near 100% RTP for the inspection period.

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 hot weather preparations for the following two systems. The inspectors reviewed licensee procedure DI-OPS-56-0293 Hot Weather Operation, and walked down the completed portions of the procedure. In addition, the inspectors reviewed the Technical Specifications (TS), Final Safety Analysis Report (FSAR) and drawings D-110012, H-21033 and H-13579 to verify the following two systems would remain operable during hot weather.

- Traveling Water Screen
- Residual Heat Removal Service Water (RHRSW)

b. Findings

No findings of significance were identified.

1R02 Evaluations of Changes, Tests or Experiments

a. Inspection Scope

The inspectors reviewed the seven evaluations listed in the Attachment to confirm that the licensee had appropriately considered the conditions under which changes to the facility, Final Safety Analysis Report (FSAR), or procedures may be made, and tests conducted, without prior NRC approval. The inspectors reviewed the evaluations and supporting information such as calculations, analyses, the UFSAR, and drawings to confirm that the licensee had appropriately concluded that the changes could be accomplished without obtaining a license amendment. The inspectors also reviewed the 13 changes listed in the Attachment to confirm that the licensee's conclusions that evaluations were not required were correct and consistent with 10CFR50.59. The inspectors also reviewed Condition Reports (CRs) to confirm that problems were identified at an appropriate threshold, were entered into the corrective action program, and appropriate corrective actions had been initiated.

Enclosure

b. Findings

No findings of significance were identified.

1R04 Equipment Alignmenta. Inspection Scope

Partial Walkdowns. The inspectors performed partial walkdowns of the following four 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.

- Unit 1 Reactor Core Isolation Cooling (RCIC) system during High Pressure Coolant Injection (HPCI) system maintenance
- 2A and 2C Emergency Diesel Generators (EDGs) during 1B EDG maintenance
- 1A and 1B EDGs during 1C EDG maintenance
- 1B and 1C EDGs during 1A EDG maintenance

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 system 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 2 HPCI System

b. Findings

No findings of significance were identified.

1R05 Fire Protectiona. 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.

- DC Switchgear Rooms Control Building (CB) 130'
- Transformer Rooms CB 130'
- LPCI Inverter Rooms CB 147'
- Control Room CB 164'
- Control Room Roof CB 180'
- Unit 1 Southeast RHR and Core Spray Room Reactor Building (RB) 87'
- Unit 1 RCIC Pump and Turbine Room RB 87'
- Unit 1 Northeast RHR and Core Spray Room RB 87'
- Unit 1 CRD and DRW Sump Room RB 87'
- Unit 1 HPCI Room RB 87'
- Unit 1 CRD Area RB 130'
- Unit 1 Working Floor and MG Set Rooms RB 158'

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 area to determine potential sources of internal flooding and the condition of penetrations and sumps in the rooms.

- Unit 1 HPCI Room

External Flooding. The inspectors reviewed the FSAR and Individual Plant Examination for plant design features that protect against external flooding and licensee procedure 10AC-MGR-013-00, Inclement Weather Policies, to verify the licensee's flood mitigation plans and equipment were consistent with the design requirements and risk analysis assumptions. The inspectors reviewed the material condition of flood protection barriers and exterior walls to verify they would perform their intended function.

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-51072-02, which included loss of generator stator cooling and turbine runback, reactor scram, loss of feedwater, loss of RCIC and HPCI, and

Emergency Depressurization. The inspectors reviewed licensee procedures 10AC-MGR-019-0, Procedure Use and Adherence, and DI-OPS-59-0896, Operations Management Expectations, to verify formality of communication, procedure usage, alarm response, control board manipulations, group dynamics, and supervisory 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

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. The inspectors reviewed operator logs, associated CR, Maintenance Work Orders (MWO) and the licensee's procedures for implementing the Maintenance Rule 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 1 and 2 Drywell Pneumatics System
- Unit 1 and Unit 2 Emergency Diesel Generator tubing failures

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

a. Inspection Scope

The inspectors reviewed the following four Plan of the Day (POD) documents and one reliability outage activity 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 whether any increase in risk was promptly assessed and that appropriate risk management actions were implemented.

- POD for the week of 04/07-04/13
- POD for the week of 04/14-04/20
- POD for the week of 05/05-05/11
- POD for the week of 05/12-05/18
- 1C EDG Outage 5/29-06/01

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following five operability evaluations and compared the evaluations to the system requirements identified in the Technical Specifications (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.

- Unit 2 Standby Gas Treatment Heater Capacity
- EDG Roller Bearing Bushing Material Part 21
- Unit 1 Standby Gas Treatment Heater Capacity
- 1C EDG Outboard Bearing Cover Plate Broken Bolt
- Unit 2 Crossflow Alarm Band Adjustment

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications

a. Inspection Scope

The inspectors evaluated engineering change packages for the following six modifications to evaluate the modifications for adverse effects on system availability, reliability, and functional capability. Documents reviewed included procedures, engineering calculations, modification design and implementation packages, work orders, site drawings, corrective action documents, applicable sections of the living FSAR, supporting analyses, TSs, and design basis information. The inspectors additionally reviewed test documentation to ensure adequacy in scope and conclusion. The inspectors verified that as-built notice (ABN) details were incorporated in licensing and design basis documents and associated plant procedures. The inspectors also reviewed selected CRs and three self-assessments associated with modifications to confirm that problems were identified at an appropriate threshold, were entered into the corrective action process, and appropriate corrective actions had been initiated and

tracked to completion. Documents reviewed are listed in the Attachment.

- DCP 1040113801, U1 Setpoint Changes to Support 10 PSI Increase, Rev. 1 (Mitigating Systems)
 - Control Signals and Licensing Basis
- DCP C009002201, Intake Structure Traveling Water Screens, July 2001 (Mitigating Systems)
 - Equipment Protection, Operations, Flowpaths, and Control Signals
- DCP 1061937201, RHR Pump 1A Motor Vibration Reduction, Rev. 1 (Mitigating Systems, Barrier Integrity)
 - Structural
- MDC 1039500501, Install SRV Quick Disconnects , Rev. 1 (Mitigating Systems)
 - Materials/Replacement Components, Equipment Protection, Operations, and Pressure Boundary
- EQ 1060603101, Replace Reactor Mode Control Switch, Ver 1.1 (Mitigating Systems)
 - Energy Needs, Materials and Replacement Components, Control Signals, and Structural
- DCP 2052562601, Westinghouse/ABB Control Rod Blades - Unit 2, Rev. 0 (Mitigating Systems)
 - Materials/Replacement Components, Operations, Licensing Basis, and Failure Modes

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing

a. Inspection Scope

For the following nine 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.

- 1P33R274A SGBT Heat Tracing Controller Replacement
- Technical Support Center Ventilation Preventive Maintenance
- 2P41F339B 2C EDG PSW Outlet AOV replacement
- 2B21F010A Inboard Feedwater Check Valve Seat Repair
- 2Z45F001A Control Building Floor Drain Sump Discharge Check Valve Repair
- 2R43F024C 2C EDG Starting Air Compressor Discharge Check Valve Air Leak
- 2E41F006 HPCI Injection MOV Grease Inspection
- 2C41F033B Standby Liquid Control Check Valve Replacement
- 2E51F0143 RCIC Pump Discharge Check Valve Inspection

Enclosure

b. Findings

No findings of significance were identified.

1R20 Refueling and Outage Activitiesa. Inspection Scope

The inspectors performed a review of Operating Experience Smart Sample (OpESS FY2007-03, Crane and Heavy Lift Inspection, supplemental guidance for inspection procedure 71111.20. The inspectors reviewed the information available for heavy lifts performed during the Unit 1 Spring 2007 refueling outage. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testinga. Inspection Scope

The inspectors reviewed licensee surveillance test procedures and either witnessed the test or reviewed test records for the following seven 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-21-0386, 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-R43-013-1, Diesel Generator 1C 24 Month Operability Test
- 34GO-OPS-024-2, Equipment Rotation and Flushing of PSW and RHRSW piping deadlegs
- 34SV-SUV-018-1, ECCS Status Check
- 34SV-SUV-013-0, Weekly Breaker Alignment Checks
- 34GO-OPS-066-0, Unit-2 One Rod Out Interlock and RPIS Functional Test
- 34SV-R43-002-2, 1B EDG Monthly Run

In-Service Test

- 34SV-E11-002-1, Unit 1 Train A RHR Valve Operability

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluationa. Inspection Scope

For the following emergency plan drill, the inspectors observed licensee activities in the simulator, Technical Support Center, and Operations Support Center to verify implementation of licensee procedure 10AC-MGR-006-0, Hatch Emergency Plan. The inspectors reviewed the classification of the simulated events and the development of protective action recommendations 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 73EP-EIP-073-0, Onsite Emergency Notification, to verify the proper notifications were made. The inspectors attended the post-exercise critique to assess the licensee's effectiveness in identifying areas of improvement. Documents reviewed are listed in the Attachment.

- Emergency Plan Drill conducted on May 30, 2007

b. Findings

No findings of significance were identified

1EP7 Force-on-Force Drill Evaluationa. Inspection Scope

The inspectors observed licensee performance during one site emergency preparedness drill in the Technical Support Center. This drill was in conjunction with a Force-on-Force inspection. The inspectors observed communications and event classification and notification activities to verify these activities were conducted in accordance with licensee procedures 73EP-EIP-001-0 and 73EP-EIP-073-0. The inspectors also observed portions of the post drill critique to determine if their observations were also identified by the licensee evaluators. This drill meets the requirements for a resident Emergency Preparedness drill in accordance with IP 71114.06.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA2 Identification and Resolution of Problems

.1 Daily Screening of Corrective Action Items

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 either attending daily screening meetings that briefly discussed major CRs, or accessing the licensee's computerized corrective action database and reviewing each CR that was initiated.

.2 Annual Sample Review

a. Inspection Scope

The inspectors performed a detailed review of the following CR 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 CR against the licensee's corrective action program as delineated in licensee procedure NMP-GM-002, Corrective Action Program, and 10 CFR 50, Appendix B. Documents reviewed are listed in the Attachment.

- 2006105934, 1A RHR and Core Spray Room Cooler not meeting heat removal acceptance criteria

b. Findings and Observations

No findings of significance were identified. The apparent cause adequately assessed the cause of external fouling and documented the multiple cleaning techniques used to achieve satisfactory results. The apparent cause was revised to incorporate the results of action items as the action items were completed. The action items resulting from the apparent cause addressed weaknesses in the cleaning maintenance guidance, verified the design heat transfer basis, provided the option to pursue a design change if needed, and procured a replacement cooler. Overall, the apparent cause and corrective actions were adequate.

.3 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a review of the licensee's Corrective Action Program and associated documents to identify trends which could indicate the existence of a more significant safety issue. The review was focused on repetitive equipment issues, but also considered the results of inspector daily CR screening, licensee trending efforts, and licensee human performance results. The review nominally considered the six

month period of January 2007 through June 2007 although some examples extended beyond those dates when the scope of the trend warranted. The 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. Documents reviewed are listed in the Attachment.

b. Assessment and Observations

The inspectors compared the licensee Quarterly Trend Report with the results of the inspectors' daily CR screening and did not identify any discrepancies or potential trends that the licensee had failed to identify.

4OA3 Event Followup

- .1 (Closed) LER 05000366/2005-001; Both Inboard and Outboard Main Steam Isolation Valves for the 'A' Penetration Failed Local Leak Rate Test
On February 2, 2005, the Unit 2 "A" Main Steam Line Primary Containment Isolation Valves failed its local leak rate test (LLRT). The cause of the failure for the inboard valve was degradation of the valve internals. The outboard valve failed due to testing methodology. The inboard valve was repaired, and both valves tested satisfactorily. This condition was documented in CR 2005101459. No findings of significance were identified. Although this condition was a violation of regulatory requirements, no performance deficiency was identified. Therefore, this violation is not subject to enforcement.
- .2 (Closed) LER 05000366/2005-002-01; Secondary Containment Bypass Leakage Requirements Exceeded
On March 2, 2005, both the inboard and outboard Reactor Coolant Isolation Cooling steam supply valve failed their LLRTs. The cause of the failure was degradation of valve internals. The valves were repaired and tested satisfactorily. This condition was documented in CR 2005103579. No findings of significance were identified. Although this condition was a violation of regulatory requirements, no performance deficiency was identified. Therefore, this violation is not subject to enforcement.
- .3 (Closed) LER 05000366/2006-003; High Pressure Coolant Injection System Inoperable Due To Leaking Check Valve
On May 16, 2006, the licensee identified leakage from the HPCI pump discharge check valve during surveillance testing. The cause of the leak was an improperly installed spacer ring resulting from not following the check valve repair maintenance procedure. The spacer ring was replaced and no leakage was confirmed in subsequent testing. This licensee-identified finding is more than minor because it affects the Mitigating Systems Cornerstone. The enforcement aspects of the violation are discussed in Section 4OA7.

Enclosure

.4 (Closed) LER 05000321/2006-002; Non-Conservative Test Method Results in Condition Prohibited by Technical Specifications

On June 2, 2006, the licensee identified the testing methodology for verifying the Main Control Room Environmental Control System outside air flow rate was non-conservative and resulted in actual air flow rate to be above the TS limit. The cause of the event was inadequate procedural guidance to measure the air flow to obtain an accurate value. The test procedure has been modified to include additional detail on the test location and methodology to use during the test. This violation is more than minor because it affected the Procedural Quality attribute of the Barrier Integrity cornerstone. The enforcement aspects of the violation are discussed in Section 4OA7.

4OA6 Meetings, Including Exit

On July 12, 2007, the inspectors presented the inspection results to Mr. Dennis Madison and the other members of his staff who acknowledged the observations. The inspectors confirmed proprietary information was not provided or examined during the inspection.

4OA7 Licensee-identified Violations

The following findings of very low safety significance (Green) were identified by the licensee and are violations of NRC requirements which meet the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as NCVs.

- 10 CFR 50 Appendix B Criterion V, Instructions, Procedures, and Drawings, required that activities affecting quality shall be prescribed and accomplished in accordance with procedures. Contrary to this, between May 2003 on May 2006, a spacer ring was not installed correctly in the Unit 2 HPCI pump discharge check valve. This condition was documented in CR 2006105462. This finding is of very low safety significance because the leakage through the mechanical joint was small compared to the capacity of the pump and design flow requirements.
- TS Surveillance 3.7.4.4 requires control room makeup air flow to be less than or equal to 400 cubic feet per minute in the pressurization mode. Contrary to this, on June 2, 2006, the licensee determined the surveillance test methodology was not accurate and non-conservative. This condition was documented in CR 2006106040. This finding is of very low safety significance because the radiation exposure to the occupants of the control room during an accident would be within the requirements of 10 CFR 50 Appendix A General Design Criteria 19 Control room.

ATTACHMENT: SUPPLEMENTAL INFORMATION

Enclosure

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

M. Ajluni, Plant Support Manager
J. Dixon, Health Physics Manager
S. Douglas, Plant Manager
B. Goodwin, Engineering Manager
G. Johnson, Operations Manager
J. Lewis, Training and Emergency Preparedness Manager
D. Madison, Hatch Vice President
J. Thompson, Nuclear Security Manager
R. Varnadore, Maintenance Manager
R. King, Engineering Supervisor for Modifications
V. Shaw, E-Fin Supervisor
S. Kirk, Design Supervisor, Corporate

LIST OF ITEMS OPENED AND CLOSED

Closed

05000366/2005-001	LER	Both Inboard and Outboard Main Steam Isolation Valves for the 'A' Penetration Failed Local Leak Rate Test (4OA3.1)
05000366/2005-002	LER	Secondary Containment Bypass Leakage Requirements Exceeded (4OA3.2)
05000366/2006-003	LER	High Pressure Coolant Injection System Inoperable Due To Leaking Check Valve (4OA3.3)
05000321/2006-002	LER	Non-Conservative Test Method Results in Condition Prohibited by Technical Specifications (4OA3.4)

LIST OF DOCUMENTS REVIEWED

Section 1R04: Equipment Alignment

34SO-E41-001-2, High Pressure Coolant Injection (HPCI) System
Drawings: H-11037, 11631, 11638, 13352, 16334, 16335, 26020, 26021, 27664, 27665, 27666, 27667, 27668, 27669, 27670, 27671, 27672
FSAR Unit-2 Section 6.3 and 7.3

Section 1R02: Evaluation of Changes, Tests, or Experiments

Full Evaluations

TM 1-04-021, Gagging Shut 1E11-F200B, Rev. 1.0
CR 2006106952, Establishment of SeaLand Storage Facility (SSF), Ver. 1.0

DCP 1040113801, U1 Setpoint Changes to Support 10 PSI Increase, Rev. 1
 DCP 90-028, Replacement Starters for Allis Chalmers Motor Control Centers, Rev. 4
 LDCR 2004-014, Revision to Unit 1 Technical Requirements Manual (TRM) to TSR 3.9.3.1 item b., Rev. 0
 LDCR 2004-022, RCIC Inboard Isolation Valve 1E51-F007 Closure Time Acceptance Criterion Increase (from 20 to 25 seconds), Ver. 1.0
 2989004701, Replace GE RMS-9 trip devices with GE Micro-Versa Trip plus trip devices on 600V Switchgear Breakers on Unit 2, Ver. 3.0

Screened Out Items

MDC 1039500501, Install SRV Quick Disconnects , 10/15/2003
 MDC 1051063101, Remove U1 HPCI Room Airlock Door Controls and Outer Door, Ver. 1.0
 DCP 1061937201, RHR Pump 1A Motor Vibration Reduction, Rev. 1
 DCP 2052562601, Westinghouse/ABB Control Rod Blades - Unit 2, Rev. 0
 MDC 1050615301, Apply Plastacor Coating to EDG 1A Heat Exchangers, Rev. 1
 MDC 03-5009, Removal of Automatic Transfer of Main Control Room HVAC from Division I to Division II, Rev. 1
 DCP C009002201, Intake Structure Traveling Water Screens Enhancement
 DCP 1029002201, Leak Repair for 1E11-F060A, 10/26/2006
 MDC C040198801, U1/2 Emergency Diesel Generator (EDG) Starting Air Compressor Discharge Relief Valves, Rev. 1
 ED 1060603101, Replace Reactor Mode Control Switch on Unit 1, Ver. 1.1
 DCP 2040627001, Molded Case Switch Replacement - Unit 2, Ver. 1.2
 DCP 2039000201, 1E 4KV Circuit Breaker Replacement - Unit 2 (2R19 Scope), Ver. 1.1
 DCP 2050497501, Alternate Power Feeds to 2E11-F015A & B, Ver. 1.1

Condition Reports

2006110586, Electricians found a broken MOC switch operating rod in switchgear cubicle 2R22S005 Frame 3 while troubleshooting a motor heater problem
 2006100170, Corporate and Site Equivalency Determination Procedures Conflict
 2006106952, Safety Evaluation for Use of the Hatch Nuclear Plant Radioactive SeaLand Storage Facility, Ver 1.0
 2006204931, Action Item for Revision of Safety Evaluation Proposed in CR 2006106952

Procedures

34SV-F15-001-1, Refueling Interlocks and Hoist Limit Checks, Ver. 13.12
 52PM-R22-004-0, Westinghouse 50DHP-VR-250U Breakers, Ver. 2.0
 NMP-ES-034, Equivalency Determinations (Fleet Version), Ver. 1.0
 DM-027, Equivalency Determinations (Corporate Version), Ver. 2.0
 CM-010, Equivalency Determinations (Supply Chain Version), Ver. 1.0
 42EN-ENG-009-0S Equivalency Determination (Hatch Version), Ver. 8.2
 62RP-RAD-050-0, Operation of the Waste Separation and Temporary Storage Facility and SeaLand Storage Facility, Ver. 1.2
 52IT-MNT-009-0, SeaLand Containers, Ver. 1.3

Calculations

SM-96-9056-001, Effects of Plastacor Coating on Small and Large D/G HX's Thermal Performance, Rev. 10
 SENH 03-003, 4.16 kV Breaker/TRV, Rev. A
 SENH 97-014, Emergency Diesel Batteries 1A, 1B, & 1C Sizing and Voltage Profile, Rev. A
 Calc 88, DC Control Circuit Voltage Drop in Diesel Battery Systems, Rev. A
 BH1-M-V004-B007-0001, Compartment Long Term Temperature Analysis, Ver. 9.0

Drawings

H-21074, Edwin I Hatch Nuclear Plant Unit No. 2 Diesel Engine and Fuel Oil System P. & I. D, Ver. 45.0

Other Documents

DOEJ-04-3801, Effect of Plastacor Coating of Tube Sheets and Tube Ends of EDG Heat Exchangers, Rev. 1
 TSR 3.9.3.1, Surveillance Requirements for Channel Functional Test on Required Refueling Equipment Interlock Inputs, Rev. 38.0
 LDCR 2004-035 for 4.16 kV Breaker Replacements on Unit 2, Ver. 1.0
 SE-DS-01-005, "Technical Specification for Vacuum-Type Replacement 4.16 kV Circuit Breakers for E. I. Hatch Nuclear Plant - Units 1 & 2," Rev. 1
 S-56787, "Equipment Qualification Report of Westinghouse/Cutler-Hammer 50DHP-VR250U/1200 Ampere Replacement Circuit Breakers for Safety Applications at E. I. Hatch Nuclear Plants - Units 1 and 2," Ver. 1.0
 LDCR 2006-036, Alternate Power Source for MOV's 2E11-F015A & 2E11-F015B, Ver. 1.0
 QFRC 2004-09, Qualification of GE TED Molded Case Circuit Breakers with Dummy Trip Mechanism, Approved 4/20/04
 DOEJ-SC-04-06270-001, Seismic Evaluation of replacement of Westinghouse FB Molded Case Switches and handles with GE TED Molded Case Switches and handles, Ver. 1.0
 S-56746, E. I. Hatch Unit No. 1/2 Instruction Manual - Type DHP-VR Vacuum Replacement Circuit Breakers For DHP Switchgear, Ver. 2.0
 Bechtel Letter To Southern Nuclear Operating Company (BH-GP-00037) dated March 8, 2004, Subject: RCIC Steam Line Isolation Valve Closure Time
 RER 2001-40, Review Need for Unit 1 HPCI Room Airlock Configurations
 CQA-06-145, Safety Review Board Meeting (EV-2006-04A) Minutes

Section 1R05: Fire Protection

Drawings: A-43965 sheets 030, 032, 039, 041, 031, 040, 047, 048, 050, 051, 052, 053, 054, 055, 058, 059, 060, 063, 064

Section 1R12: Maintenance Effectiveness

System Health Report for the Unit 1 and Unit 2 Drywell Pneumatic System
 System Health Report for the Unit 1 and Unit 2 EDGs
 NMP-ES-002, System Monitoring and Health Reporting
 MWOs: 1051076501, 1041508601, 1051076501, 1061670001, 1061670101, 1061670201, 2061670301, 2061670401, 2062582201, 1042995701,
 CRs: 2006111821, 2004111628, 2006106015
 Procedures: 57CP-P70-001-2 ITT Barton Pressure Switch (Model 580A-2)
 Operating Experience: Damage to Emergency Diesel Generator Copper Tubing due to Vibration

Section 1R15: Operability Evaluations

CRs: 2007103899, 2007103822, 2007103164 (Farley), 2007103899, 2007104699, 2007104784, 2007105906

Vendor Manual; SX-27738, SX-15747, Standby Gas Treatment and Control Room Filter System - Operation and Maintenance Manual

Intercompany Correspondence: Unit-2 SGTS Filter Unit Heater Sizing, dated March 30, 2007
Engineering Calculation: SMNH-07-004, Job 6511-01

Documentation of Engineering Judgement: DOEJ-SE-2070778301-001

Action Items: Corporate, 2007200351, 350, 349, 356

NRC Event Notification 43294

MWO: 1071046901

Crossflow/Corrtemp Parameter Change Worksheet

Section 1R17: Permanent Plant ModificationsProcedures

34SO-W33-001-0, Traveling water Screens and Intake Trash Rake Operation, Ver. 10.1

17SP-062601-PE-1-1N, DCR00-022 Functional Test for Downstream Traveling Water Screen Controls (1W33-E003B), Ver. 1.0

17SP-062601-QP-1-1N, DCR00-022 Functional Test for Upstream Traveling Water Screen Controls (1W33-E003A), Ver. 1.0

34SP-02-23-06-PK-1-1, Reactor Mode Switch, Ver. 1.0

34SV-F15-001-1, Refueling Interlocks and Hoist Limit Checks, Ver. 13.12

34SV-C71-003-1, Reactor Mode Switch in Shutdown Functional Test, Ver. 5.6

Self Assessment

DM-06-1531, Hatch U1 Plant Modifications 1R22 Work Period Critique Meeting, 07/31/2006

Southern Nuclear Fleet EQ Program Team Self Assessment, 09/09/2005

Fleet Configuration Management Self Assessment, 07/09/2004

SA03-NSC-03, Plant Hatch Self Assessment of Reg Reporting, Part 21, and Part 59, 11/14/2003

Condition Reports

2006102086 and 2000002715

Work Orders

10102080,1060578501,1039500502, 1030073302,

Drawings

H-13388, Edwin I Hatch Nuclear Plant Unit No.1 Elementary Diagram Plant Service Water M.O. Valves, Rev. 31

H-13579, Edwin I Hatch Nuclear Plant Unit No.1 Elementary Diagram Miscellaneous Pumps and Equipment, Rev. 36

S-55894, Hatch Unit 1 and 2 Traveling Water Screens - General Arrangement Drawing, Rev. 1

D-11001, Edwin I Hatch Nuclear Plant Unit No. 1 P & I D for Service Water Piping at Intake Structure, Ver. 81.0

H-13557, Edwin I Hatch Nuclear Plant Unit No.1 Elementary Diagram Circulating Water and Condenser Equipment and Auxiliaries, Ver. 35.0

H-17786, Sheet 4 of 18, Hatch Unit No. 1 Reactor Protection System C71 Elementary Diagram, Ver. 13.0
 H-17789, Sheet 7 of 18, Hatch Unit No. 1 Reactor Protection System C71 Elementary Diagram, Rev. 22
 H-17790, Sheet 8 of 18, Hatch Unit No. 1 Reactor Protection System C71 Elementary Diagram, Rev. 24
 H-17791, Sheet 9 of 18, Hatch Unit No. 1 Reactor Protection System C71 Elementary Diagram, Rev. 11
 H-17792, Sheet 10 of 18, Hatch Unit No. 1 Reactor Protection System C71 Elementary Diagram, Rev. 11
 H-17794, Sheet 12 of 18, Hatch Unit No. 1 Reactor Protection System C71 Elementary Diagram, Rev. 12
 S-18512, Hatch Unit No. 1 Connection Diagram Reactor Control BB, Ver. 3.0
 H-17754, Hatch Unit No. 1 Automatic Depressurization System B21C Elementary Diagram, Sheet 2 of 5, Rev. 34
 H-17755, Hatch Unit No. 1 Automatic Depressurization System B21C Elementary Diagram, Sheet 3 of 5, Rev. 28

Other Documents

GE-NE-0000-0059-5414-00, Hatch 1 RHR Motor Modification, Seismic Qualification, Rev. 2
 NRC Final Safety Evaluation for Topical Report WCAP-16182-P, "Westinghouse BWR Control Rod CR 99 Licensing Report"
 ED SC-04-1-0005, Remove the existing GE SB-1 type Reactor Mode Switch and replace it with GE SB-9 type Switch, Dated 1/19/2004
 GE Service Information Letter No. 397, "SB-1 Reactor Mode Switch," dated November 1983
 GE Letter to Southern Company Plant Hatch dated February 25, 2006, Subject: Contact Configuration of Reactor Mode Switch
 Draft As Built Notice 04-14, Revise Drawings to allow use of Reactor Mode Switch SB-1 (P/N 234A9704P001) or SB-9 (P/N DA213A6988P003), Dated 1/20/2004
 QFRC 2003-11H, MDC 03-5005 Add EGS QDC and Flexible Metal Conduit to SRVs, 08/04/2003
 QFRC 2005-08, MDC 03-5005 Add EGS QDC and Flexible Metal Conduit to SRVs, 03/15/2005

Section 1R19: Post Maintenance Testing

MWOs: 1070966201, 1062653301, 1061287501, 1052048001, 1070665901, 2071160201, 2070517801, 2050445601, 2070113001, 2052566501, 2050607201, 2061139902, 2061140801
 Procedures: 57CP-CAL-236-1 Love Temperature Controller/Indicator
 42SV-X75-002-1 TSC HVAC Operation and Test
 95IT-OTM-001-0 Maintenance Work Order Functional Test Guideline
 42IT-TET-012-2S Plant Service Water and RHR Service Water Piping Inspection Procedure
 52PM-MEL-013-0 Installation and Maintenance of ASCO Solenoid Valves
 57CP-CAL-250-0 AOV Stroke/Positioner Test and Setup
 52CM-MNT-001-0 Minitork Valve Maintenance
 51GM-MNT-055-0 Maintenance of Rockwell Edwards Tilting Disk Check Valves
 51GM-MNT-058-0 Piston Lift Check Valve Maintenance
 51GM-MNT-033-0 Torque of Pressure Boundary Applications

52PM-MNT-005-0 Limitorque Valve Operator Inspection
42IT-TET-004-0 Operating Pressure Testing of Piping and Components
CRs: 2007104745
Valve Inservice Testing Plan
10 CFR 50.54(q) Evaluation dated 4/26/07
NIS-2 Repair/Replacement Certification Report 2071160201 dated 5/23/07

Section 1R20: Refueling and Outage Activities

52SV-MLH-001-0 Overhead Crane Inspection
Dry Cask Storage Heavy Loads Evaluation SCNH 99-036
Morris Material Handling Vendor Maintenance Instructions

Section 1R22: Surveillance Testing

CRs:2007105326, 2007106115, 2007106036, 2007106041

Section 1EP6: Drill Evaluation

73EP-EIP-004-0, Duties of the Emergency Director
Scenario for HNP Emergency Preparedness 2006 Exercise (May 30, 2007)
Southern Nuclear Emergency Notification Forms

Section 4OA2: Identification and Resolution of Problems

Area Cooler 1T41-B002A Apparent Cause Report Revisions 0, 1, 2, and 3
MWOs: 1061320001, 106132002, 1062687001
Procedures: 52PM-T41-004-0 Cooling Coil Cleaning
42IT-TET-014-1 Safeguards Equipment Room Coolers Data Collection
CRs: 2006107057, 2006112086,
Action Items: 2006202879, 2007200218
Apparent Cause Determination Grading Sheet
Quarterly CAP Trend Report November
Corrective Action Program Performance Indicators