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

April 29, 2005

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 05000321/2005002, 05000366/2005002, AND 072000036/2005001

Dear Mr. Sumner:

On March 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 findings, which were discussed on April 7, 2005, with Mr. Dennis Madison 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.

This report documents one NRC-identified finding of very low safety significance (Green) which was determined to involve a violation of NRC requirements. Because this violation is of very low safety significance and was entered into your corrective action program, the NRC is treating this violation as a non-cited violation (NCV) consistent with Section VI.A of the NRC Enforcement Policy. If you contest this NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the United States 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 20555-0001; and the NRC Resident Inspector at the Hatch Nuclear Plant.

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, 72-36
License Nos. DPR-57 and NPF-5

Enclosure: Inspection Report 05000321/2005002,
05000366/2005002, and 072000036/2005001
w/Attachment: Supplemental Information

cc w/encl:
J. T. Gasser
Executive Vice President
Southern Nuclear Operating Company, Inc.
Electronic Mail Distribution

George R. Frederick
General Manager, 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. Domby, Esq.
Troutman Sanders
Electronic Mail Distribution

Laurence Bergen
Oglethorpe Power Corporation
Electronic Mail Distribution

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 Board of Commissioners
69 Tippins Street., 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:
C. Gratton, NRR
L. Slack, RII EICS
C. Evans, RII EICS
RIDSNRRDIPMLIPB
PUBLIC

☐ X SISP REVIEW COMPLETE: Initials: _CWR1 ☐ SISP REVIEW PENDING*: Initials: _____ *Non-Public until the review is complete
☐ 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	CWR1	DSS	JAH5	AAV	SDR2	GBK1	ADN
NAME	CRapp	DSimpkins	JHickey	AVargas-Mendez	SRose	GKuzo	ANielsen
DATE	4/19/2005	4/28/2005	4/15/2005	4/18/2005	4/19/2005	4/19/2005	4/14/2005
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: E:\Filenet\ML051190731.wpd

U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos:	50-321, 50-366, 72-36
License Nos:	DPR-57, NPF-5
Report No:	05000321/2005002, 05000366/2005002, and 072000036/2005001
Licensee:	Southern Nuclear Operating Company, Inc. (SNC)
Facility:	Edwin I. Hatch Nuclear Plant
Location:	P.O. Box 2010 Baxley, Georgia 31515
Dates:	January 1 - March 31, 2005
Inspectors:	D. Simpkins, Senior (Sr.) Resident Inspector J. Hickey, Resident Inspector A. Vargas-Mendez, Reactor Inspector (Section 1R08) S. Rose, Sr. Operations Engineer (Section 1R11) G. Kuzo, Sr. Health Physicist (Sections 2OS1, 2PS2, and 4OA1) A. Nielsen, Health Physicist (Sections 2OS2 and 4OA5)
Approved By:	Malcolm T. Widmann, Chief Reactor Projects Branch 2 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000321/2005002, 05000366/2005002, 72000036/2005001; 01/01/2005 - 03/31/2005, Edwin I. Hatch Nuclear Plant Unit 1 and Unit 2, Radioactive Material Processing and Transportation

The report covered a three-month period of inspection by resident inspectors and regional health physicists, a reactor inspector, and an operations engineer. One Green non-cited violation was identified. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after management review. 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

Cornerstone: Public Radiation Safety

- Green. An NRC-identified non-cited violation of 10 CFR 71.5 was identified for failure to implement current package design specifications for proper closing of Type A shipping packages (control rod drive mechanism (CRDM) shipment boxes) as required by DOT regulations. Specifically, for Type A packages containing CRDM equipment shipped between January 2003 and February 2005, the licensee failed to prepare the package closures in accordance with vendor package specifications as required by 49 CFR 173.475(e).

  This finding is more than minor because it is associated with the public radiation cornerstone program and process attribute and it affected the cornerstone objective to ensure adequate protection of public health and safety from exposure to radioactive material released into the public domain. The issue was reviewed using the Public Radiation Safety Significance Determination Process and was determined to be of very low safety significance (Green) because a radiation limit was not exceeded nor was the packaging breached. In addition, previous shipments made by the licensee had arrived at their destination with no identified degradation of the subject packaging and immediate corrective actions assured that on-going CRDM equipment packages were prepared properly prior to shipment. (Section 2PS2)

B. Licensee-Identified Violations

None.

REPORT DETAILS

Summary of Plant Status

Unit 1 operated at or near full Rated Thermal Power (RTP) during this inspection period, with the exception of a scheduled outage from January 3 to January 10 to repair drywell cooler leakage.

Unit 2 operated at or near full RTP until February 5 when the unit was shutdown for a scheduled refueling outage. The unit was restarted on March 12 and achieved RTP on March 19.

1. REACTOR SAFETY
Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R04 Equipment Alignment

a. Inspection Scope

Partial System Walkdowns. The inspectors performed partial walk-downs of the following four systems when the redundant trains were removed from service. 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 2 High Pressure Coolant Injection (HPCI) during a Unit 2 Reactor Core Isolation Cooling (RCIC) Outage
- 2A Residual Heat Removal (RHR) Shutdown Cooling during a 2B RHR Shutdown Cooling Outage
- 2B Core Spray (CS) System during a 2A CS System Outage
- 2C Emergency Diesel Generator (EDG) during a 2A 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.

- Decay Heat Removal/Unit-1 Fuel Pool Cooling

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

Fire Area Tours. The inspectors toured 12 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 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 Southeast RHR and CS Room
- Unit 1 RCIC Pump and Turbine Room
- Unit 1 NE RHR and CS Room
- Unit 1 Control Rod Drive (CRD) and DRW Sump Room
- Unit 1 HPCI Room
- Unit 1 Working Floor and Air Supply Room 185'
- Unit 1 CRD Area
- Unit 2 Recirculation Motor Generator (MG) Set Rooms
- Unit 1 Working Floor and MG Set Rooms 158'
- Unit 2 Torus Area and Main Steam Chase
- Unit 1 Standby Gas and Air Conditioning 164'
- Diesel Fuel Oil Storage Tanks

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance

a. Inspection Scope

Annual Resident Review. The inspectors reviewed the results of the licensee inspection of the 2B RHR heat exchanger. The inspectors verified implementation of procedure 42IT-TET-012-2S, Plant Service Water and RHR Service Water Piping Inspection Procedure. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R08 Inservice Inspection (ISI) Activities

a. Inspection Scope

The inspectors observed the following Unit 2 ISI activities, reviewed ISI procedures, and reviewed selected ISI records, associated with risk significant structures, systems, and

components. The observations and records were compared to the requirements specified in the Technical Specifications (TS) and the ASME Boiler and Pressure Vessel Code, 1989 Edition, to verify compliance and to ensure that examination results were appropriately evaluated and dispositioned. Qualification and certification records for examiners, equipment and consumables, and non-destructive examination procedures for the ISI activities were also reviewed.

Direct Observation:
Ultrasonic examinations (UT):
- Residual Heat Removal System Pipe to Elbow, Weld # 2E11-2RHR-16A-DS-4
- Residual Heat Removal System 45 Degree Elbow to Pipe, Weld # 2E11-2RHR-16B-SH-6
- Recirculation Pump M2A Pipe to Pipe, Weld # 2B31-1RCM-12BA02

Liquid Penetrant Examinations:
- Reactor Pressure Vessel Stabilizer Bracket, Weld # 2B11-SB5
- Reactor Pressure Vessel Stabilizer Bracket, Weld # 2B11-SB6

Records Review:
Visual Examination:
- Steam Dryer Seismic Bracket @ 34°
- Steam Dryer Seismic Bracket @ 146°
- Steam Dryer Seismic Bracket @ 214°
- Steam Dryer Seismic Bracket @ 326°
- Steam Dryer Support Lugs to Reactor Pressure Vessel (RPV) @ 34°
- Steam Dryer Support Lugs to RPV @ 146°
- Steam Dryer Support Lugs to RPV @ 214°
- Steam Dryer Support Lugs to RPV @ 326°

Automated UT:
- Recirculation Safe End to Nozzle, Dissimilar Weld # 2B31-1RC-12BR-D-5 (N2D)
- Recirculation Pipe to Cross, Weld # 2B31-1IRCM-28BD-5

The inspectors also reviewed corrective action items such as Condition Reports (CRs) and Indication Notification Reports associated with the ISI program to determine if problems were being identified at appropriate thresholds and if adequate corrective actions were being taken. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

Quarterly Resident Observation. The inspectors observed the performance of simulator scenario LT-SG-51071-00. The scenario involved activities including bypassing a failed local power range monitor, responding to a failed lube oil temperature controller on the

2A Reactor Feed Pump Turbine, Loss of Feedwater, Reactor Scram, RCIC turbine mechanical overspeed trip, failed governor on the HPCI turbine, and emergency depressurization. The inspectors reviewed procedures 10AC-MGR-019-0S, Procedure Use and Adherence, and DI-OPS-59-0896N, Operations Management Expectations, to assess operator performance for the following: formality of communication; procedure usage; alarm response; control board manipulations; group dynamics; and supervisory oversight. In addition, the inspectors reviewed the critique results from previous training sessions to assess performance improvement. The inspectors attended the licensee's critique of operator performance to assess if the licensee-identified issues were comparable to issues identified by the inspectors. The inspectors compared their observations of licensee performance to the requirements in procedure DI-TRN-24-0885N, Simulator Documentation Requirements.

Requalification Examination Results Review. On October 15, 2004, the licensee completed the requalification annual operating tests required to be given to all licensed operators per 10 CFR 55.59(a)(2). The inspectors conducted an in-office review of the overall pass/fail results of the 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 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 CRs, Maintenance Work Orders, and the licensee's procedures for implementing the Maintenance Rule. 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.

- Failures in the CRD/Hydraulic Control Unit system
- Local Leakrate Test Failures for Main Steam Isolation Valves 2B21F022A, 2B21F028A, 2B21F028B, and 2B21F028C

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation

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 risk assessment and risk management controls implemented for these activities to verify they were completed in accordance with 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 1/22-28
- POD for the week of 1/29-2/4
- POD for the week of 2/5-11
- POD for the week of 2/19-25
- POD for the week of 3/12-18

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 observed operator actions and reviewed procedures, operator logs, computer data, and strip chart data recordings as applicable to verify plant responded as expected and that proper operator actions were taken. Documents reviewed are listed in the Attachment.

- Unit 1 Shutdown for Drywell Cooler repairs on January 1
- Unit 2 Shutdown for refueling on February 5
- Notice of Unusual Event declared for a Freon leak in the Unit 2 Drywell Chiller system on February 7

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following seven operability evaluations and compared the evaluations to the system requirements identified in the TS and the Final Safety Analysis Report (FSAR) to verify 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.

- CR 2005100077, Unit 1 Drywell Cooler Tube plugging
- CR 2005100341, 1E11-F016A Containment Spray Isolation inoperable during startup
- CR 2005100182/183, Faster Than Normal Speeds for Control Rods 30-19 and 42-35
- CR 2005100364, 1E11-F004B backleakage when in Shutdown Cooling
- CR 2005101901, Control Room Door Latch Broken
- CR 2005103163, Unit 2 Broken Torus T-quencher Bolts
- CR 2005102226, 1C EDG Start Light Did Not Energize

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing

a. Inspection Scope

The inspectors reviewed the procedures listed in the Attachment and observed personnel performance for the following seven 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 correctly completed 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 safety function.

- 1B21-F100B Body Inboard Drain to CRW replacement
- 1C11C001A 1A CRD pump oil leaks
- 2B21F037G Vacuum Breaker for SRV
- 2C11D001-115 HCU 46-27 charging header check valve
- 1A EDG Lube Oil Pressure Switch Replacement
- Replace the Control Rod Drive Mechanism (CRDM) 06-27
- CRD 42-47 EP-121 O-Ring leakage

b. Findings

No findings of significance were identified.

1R20 Refueling and Outage Activities

a. Inspection Scope

Unit 1 Drywell Cooler Repair. The inspectors reviewed the outage schedule to verify the licensee's use of risk management techniques, incorporation of operating experience, and past lessons learned for the scheduled maintenance outage conducted January 3 - January 10. Additionally, the inspectors routinely reviewed procedure DI-OPS-57-0393, Outage Safety Assessment, to verify the licensee was correctly maintaining required

equipment. During the planned outage, the inspectors monitored licensee control over the following outage activities listed below.

- Reactor coolant system cooldown to verify the cooldown rate did not exceed TS limits
- Walkdown of the drywell to verify material conditions supported plant operations
- Plant startup, heatup, and power ascension
- Licensee identification and resolution of problems related to the planned outage activities

Unit 2 Refueling Outage. The inspectors reviewed procedure DI-OPS-57-0393 and the outage schedule to verify the licensee's use of risk management techniques, incorporation of operating experience, and past lessons learned for the refueling outage conducted February 4 - March 14. Additionally, the inspectors reviewed the outage safety assessment to verify the licensee had contingency plans and these plans included sufficient equipment to maintain a defense-in-depth approach to safety. The inspectors routinely reviewed procedure DI-OPS-57-0393 to verify the licensee was correctly maintaining required equipment in service in accordance with the overall outage safety assessment. During the refueling outage, the inspectors monitored licensee control over the outage activities listed below. Documents reviewed are listed in the Attachment.

- Reactor coolant system cooldown to verify the cooldown rate did not exceed TS limits
- Four clearances to verify implementation of the clearance process and the associated equipment was properly configured to support the function of the clearance
- Calibration of reactor instrumentation used to monitor reactor water level within surveillance requirements
- Observe fuel movement during initial and final fuel shuffles
- TS and procedures to verify mode change requirements were met
- Walkdown of the drywell and torus proper and other areas to verify material conditions supported plant operations
- Plant startup, heatup, and power ascension
- Shutdown Margin determination
- Licensee identification and resolution of problems related to outage activities

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors reviewed surveillance test procedures and either witnessed the test or reviewed test records for the following six surveillances to verify the test adequately demonstrated that the affected equipment was operable. The inspectors reviewed the activities to assess for preconditioning of equipment, procedure adherence, and equipment alignment following completion of the surveillance. The inspectors reviewed procedure AG-MGR-21-0386N, Evolution and Pre-and Post-Job Brief Guidance, and attended selected briefings to verify procedural requirements were met.

Surveillance Tests
- 42SV-E11-001-2, RHR-LPCI LSFT Testing
- 42SV-R43-016-2, Diesel Generator 2C LOCA/LOSP LSFT
- 34SV-C41-002-2, Standby Liquid Control Pump Operability Test
- 42IT-TET-006-2, ISI Pressure Test of the Class 1 System and Recirc Pump(s) Runback Test

In-Service Tests
- 34SV-E21-001-1, 1A Core Spray Pump Operability Test

Containment Isolation Valve Tests
- 42SV-TET-001-2, Primary Containment Periodic Type B and Type C Leakage Tests for 2B21-F022A and 2B21-F028A as-left testing

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed the following two temporary modifications (TMM) and assessed each evaluation using criteria defined in 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 safety functions of these systems. The inspectors checked the modifications to verify they were installed in accordance with the TMM requirements. Documents reviewed are listed in the Attachment.

- TMM 1-05-001, Installation of a PSW Blank on Cooler 1T47-B009B
- TMM 2-05-001, Temporary Power to Unit 2 Drywell Chiller System Freon Monitor

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY
Cornerstones: Occupational Radiation Safety and Public Radiation Safety

2OS1 Access Controls To Radiologically Significant Areas

Access Controls. The inspectors reviewed and evaluated licensee guidance and its implementation for controlling and monitoring worker access to radiologically significant areas and tasks associated with the refueling outage. The inspectors evaluated changes to, and adequacy of procedural guidance; directly observed implementation of established administrative and physical radiological controls; appraised radiation worker and technician knowledge of, and proficiency in implementing radiation protection

activities; and assessed radiation worker (radworker) exposures to radiation and radioactive material.

The inspectors directly observed controls established for workers and Health Physics Technician (HPT) staff in potential airborne radioactivity area, radiation area, high radiation area (HRA), locked-high radiation area (LHRA), and very high radiation area (VHRA) locations. Controls and their implementation for LHRA keys and for storage of irradiated material within the spent fuel pool locations were reviewed and discussed in detail. Established radiological controls were evaluated for selected outage tasks including insulation removal/replacement; ISI; fuel movement; local power range monitor (LPRM) replacement; CRDM removal, replacement, and shipping; and radioactive waste (radwaste) processing, storage, and shipping. In addition, licensee controls for areas where dose rates could change significantly as a result of plant shutdown and refueling operations were reviewed and discussed.

For selected tasks, the inspectors attended pre-job briefings and reviewed radiation work permit (RWP) details to assess communication of radiological control requirements to workers. Occupational workers' adherence to selected RWPs and HPT proficiency in providing job coverage were evaluated through direct observations and interviews with licensee staff. Electronic dosimeter (ED) alarm setpoints and worker stay times were evaluated against area radiation survey results for ISI activities, LPRM replacement, and CRDM removal and replacement. Worker exposure as measured by ED and by licensee evaluations of skin doses resulting from discrete radioactive particle or dispersed skin contamination events during current outage activities were reviewed and assessed independently. For HRA tasks involving significant dose gradients, e.g., ISI, CRDM removal/replacement, and LPRM replacement, the inspectors evaluated the use and placement of whole body and extremity dosimetry to monitor worker exposure.

Postings and physical controls established within the radiologically controlled area for access to the Unit 2 drywell and torus; Unit 1 and Unit 2 reactor and turbine building locations; Unit 1 and Unit 2 radioactive waste processing, storage, shipping equipment, and locations; and the low level waste sorting facilities were evaluated during facility tours. The inspectors independently measured radiation dose rates or directly observed conduct of licensee radiation surveys and results for ISI tasks, CRDM removal/replacement, and radioactive material/waste shipping tasks. Results were compared to current licensee surveys and assessed against established postings and radiation controls. Licensee access controls were observed for selected Unit 1 and Unit 2 LHRA and VHRA locations.

The inspectors evaluated implementation and effectiveness of licensee controls for both airborne and external radiation exposure. The inspectors reviewed and discussed selected whole-body count analyses conducted between January 1, 2004, and March 3, 2005. This was performed to evaluate the implementation and effectiveness of personnel monitoring and administrative and physical controls including air sampling, barrier integrity, engineering controls, and postings for tasks having the potential for individual worker internal exposures to exceed 30 millirem Committed Effective Dose Equivalent. Effectiveness of external radiation exposure controls were evaluated through review and discussions of individual worker dose as measured by ED for selected tasks.

Radiation protection activities were evaluated against the FSAR, the TS, and 10 CFR Parts 19 and 20 requirements. Specific assessment criteria included FSAR Section 11, Radioactive Waste Management, and Section 12, Radiation Protection; 10 CFR 19.12; 10 CFR 20, Subpart B, Subpart C, Subpart F, Subpart G, Subpart H, and Subpart J; TS Sections 5.4.1(a), Procedures, and 5.7, High Radiation Area; and approved procedures. Documents and records reviewed are listed in the Attachment.

Problem Identification and Resolution. Licensee Corrective Action Program (CAP) documents associated with access control to radiologically significant areas were reviewed and assessed. The inspectors evaluated the licensee's ability to identify, characterize, prioritize, and resolve the identified issues in accordance with procedure NMP-GM-002-GL02, Corrective Action Program Details and Expectations Guideline. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

2OS2 As Low As Reasonably Achievable (ALARA) Planning and Controls

a. Inspection Scope

ALARA. The inspectors reviewed ALARA program guidance and its implementation for ongoing outage job tasks. The inspectors evaluated the accuracy of ALARA work planning and dose budgeting, observed implementation of ALARA initiatives and radiation controls for selected jobs in-progress, assessed the effectiveness of source-term reduction efforts, and reviewed historical dose information.

ALARA planning documents and procedural guidance were reviewed and projected dose estimates were compared to actual dose expenditures for the following high dose jobs: ISI work, CRDM removal, and LPRM replacement activities. Differences between budgeted dose and actual exposure received were discussed with cognizant ALARA staff. Changes to dose budgets relative to changes in radiation source term and/or job scope were also discussed. The inspectors attended pre-job briefings and evaluated the communication of ALARA goals, RWP requirements, and industry lessons-learned to job crew personnel. The inspectors also attended three Plant ALARA Review Committee meetings and observed the interface between plant management and ALARA planning staff.

The inspectors made direct field or closed-circuit-video observations of outage job tasks involving ISI activities and CRDM removal/replacement. For the selected tasks, the inspectors evaluated radworker and HPT job performance; individual and collective dose expenditure versus percentage of job completion; surveys of the work areas, appropriateness of RWP requirements; and adequacy of implemented engineering controls. For ISI work, the inspectors interviewed radworkers and job sponsors regarding understanding of dose reduction initiatives and their current and expected accumulated doses at completion of the job tasks.

Implementation and effectiveness of selected program initiatives with respect to source-term reduction were evaluated. Chemistry program ALARA initiatives and their effect on Unit 2 drywell dose rate trends were reviewed. The effectiveness of temporary shielding installed for the current outage was assessed through review of shielding request packages and pre-shielding versus post-shielding dose rate data. The inspectors also reviewed the results of pipe flushing to reduce Unit 2 reactor nozzle dose rates.

Plant exposure history for 2001 through 2003 and data reported to the NRC pursuant to 10 CFR 20.2206 were reviewed as were established goals for reducing collective exposure during the refueling outage. The inspectors reviewed procedural guidance for dosimetry issuance and exposure tracking. The inspectors also examined dose records of declared pregnant workers to evaluate assignment of gestation dose. In addition, selected individual access records were reviewed for dose received during work in areas with high dose rate gradients.

ALARA program activities and their implementation were reviewed against 10 CFR Part 20, and approved procedures. In addition, licensee performance was evaluated against guidance contained in Regulatory Guide (RG) 8.8, Information Relevant to Ensuring that Occupational Radiation Exposures at Nuclear Power Stations will be As Low As Reasonably Achievable, and RG 8.13, Instruction Concerning Prenatal Radiation Exposure. Documents reviewed are listed in the Attachment.

Problem Identification and Resolution. The inspectors reviewed five CRs, two self-assessments, and one corporate audit in the area of exposure control. The inspectors evaluated the licensee's ability to identify, characterize, prioritize, and resolve the identified issues in accordance with procedure NMP-GM-002-GL02. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

2PS2 Radioactive Material Processing and Transportation

a. Inspection Scope

Waste Processing and Characterization. The inspectors reviewed and discussed the currently installed radwaste processing systems as described in the FSAR, Section 11. In addition, stored and disposed radwaste types and quantities as documented in Effluent Release Report for 2004 were discussed with responsible licensee representatives.

The operability and configuration of selected liquid and solid radioactive radwaste processing systems and equipment were evaluated. Inspection activities included document review, interviews with plant personnel, and direct inspection of processing equipment and piping. The inspectors directly observed equipment material condition and configuration for liquid and solid radwaste processing systems and licensee staff were interviewed regarding equipment function and operability. The licensee's policy regarding abandoned radwaste equipment was reviewed and discussed with cognizant

licensee representatives. Operations staff were interviewed to assess knowledge of radwaste system processing operations. Procedural guidance involving resin dewatering activities and filling of waste packages was reviewed for consistency with the licensee's Process Control Program and FSAR details.

Licensee radionuclide characterizations of each major waste stream were evaluated. For dry active waste (DAW), primary resin, secondary resin, and filters, the inspectors evaluated PCP and licensee procedural guidance against 10 CFR 61.55 and the Branch Technical Position on Radioactive Waste Classification details. Part 61 data and scaling factors were reviewed and discussed with licensee representatives for radwaste processed or transferred to licensed burial facilities for the period January 1, 2003, through January 31, 2005. The licensee's analyses and current scaling factors for quantifying hard-to-detect nuclides were assessed. The inspectors discussed potential for changes plant operating conditions and reviewed selected DAW waste stream radionuclide data to determine if known plant changes were assessed and radionuclide composition remained consistent for the period reviewed. Documents reviewed are listed in the Attachment.

Transportation. The inspectors evaluated licensee activities related to transportation of radioactive material. The evaluation included review of shipping records and procedures, assessment of worker training and proficiency, and direct observation of shipping activities.

The inspectors assessed shipping-related procedures for compliance to applicable regulatory requirements. Selected shipping records were reviewed for completeness and accuracy, and for consistency with procedures. Training records for individuals qualified to ship radioactive material were checked for completeness. In addition, specific training curricula provided to maintenance workers were assessed. For a shipment of radioactive waste resin to a processing vendor and a shipment of CRDM equipment to a refurbishment facility, the inspectors directly observed initial package preparation; independently verified results of contamination and direct radiation surveys; evaluated shipping paperwork for completeness; and assessed initial loading, bracing, and placarding of the transport vehicles. Responsible staff were interviewed to assess their knowledge of package preparation specifications, and applicable radiation and contamination control limits.

Transportation program guidance and implementation were reviewed against regulations detailed in 10 CFR 71, and 49 CFR 170-189 and applicable procedures. In addition, training activities were assessed against 49 CFR 172 Subpart H, and the guidance documented in NRC Bulletin 79-19. Documents reviewed are listed in the Attachment.

Problem Identification and Resolution. Licensee CAP documents associated with radwaste processing and transportation activities were reviewed and assessed. The inspectors evaluated the licensee's ability to identify, characterize, prioritize, and resolve the identified issues in accordance with procedure NMP-GM-002-GL02. Documents reviewed are listed in the Attachment.

b. Findings

Introduction. A Green NRC-identified non-cited violation (NCV) of 10 CFR 71.5 was identified for failure to implement current package design specifications for proper closing of Type A shipping packages (CRDM shipment boxes) as required by DOT regulations. Specifically, for Type A packages containing CRDM equipment shipped between January 2003 and February 2005, the licensee failed to prepare the package closures in accordance with vendor package specifications as required by 49 CFR 173.475(e).

Description. The inspectors identified significant differences in selected package certification details, design/testing specifications, and associated drawings referenced within container certification and engineering evaluations maintained by the licensee for use in preparation of CRDM equipment DOT Type A packages (Model IAEA-102.2-3.5-7A-TRF). These Type A packages were being used for shipment of CRDM equipment. Subsequent calls to the vendor supplying the Type A packages resulted in receipt of current and accurate package certification and engineering evaluation documentation. The inspectors noted that the documents provided required package preparation specifications including package maximum weight and lid closure device (T-bolt) torque values and configuration requirements, i.e., required types and numbers, and conditions of the washers used for final lid closure assembly. From review and discussion of quality control documents associated with previous Type A package CRDM equipment shipments made between January 2003 and February 2005, the inspectors noted that required lid closure device torque values and assembly configurations were not specified. Licensee representatives stated that previous package preparation guidance did not specify a required closure torque value nor a closure device configuration, but only required the verification that the 'T-bolts' and lid were secured tightly. After this issue was identified, the inspectors observed subsequent shipment packaging for CRDM equipment and verified that the licensee's preparation met the current and approved engineering document specifications.

Analysis. This finding is more than minor because it is associated with the public radiation cornerstone program and process attribute and it affected the cornerstone objective to ensure adequate protection of public health and safety from exposure to radioactive material released into the public domain. The issue was reviewed using the Public Radiation Safety Significance Determination Process and was determined to be of very low safety significance (Green) because a radiation limit was not exceeded nor was the packaging breached. In addition, previous shipments made by the licensee had arrived at their destination with no identified degradation of the subject packaging and immediate corrective actions assured that on-going CRDM equipment packages were prepared properly prior to shipment.

Enforcement. 10 CFR 71.5 requires licensees to conform with the regulations in DOT 49 CFR Parts 170 through 189. For Type A package shipments, 49 CFR 173.415(a) requires each offeror of a Specification 7A Type A package to maintain complete documentation of tests and engineering evaluation or comparative data showing the construction methods, packaging design and materials of construction to comply with that specification for at least one year after the latest shipment. Further, 49 CFR 173.475(e) requires that each special instruction for closing and preparation of a

package be followed. For shipments of Type A CRDM packages made between January 2003 and February 2005, the licensee failed to implement current design document specifications for closure of the DOT Type 7A packages, in that, T-bolt torque values and closure assembly specifications for package closure were not met. The licensee documented this issue in its CAP as CR No. 2005101950. Since this violation is of very low safety significance and the licensee entered the finding into its CAP, this violation is being treated as a NCV consistent with Section VI.A of the NRC Enforcement Policy: NCV 05000321, 366/2005002-01, Failure to Implement Appropriate DOT Type A Package Closure Requirements.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification

a. Inspection Scope

The inspectors sampled licensee data for the PIs listed below. To verify the accuracy of the PI data reported, PI definitions and guidance contained in NEI 99-02, "Regulatory Assessment Indicator Guideline," Rev. 2, were used to screen each data element.

Public Radiation Safety Cornerstone
- RETS/ODCM Effluent Occurrence

The inspectors reviewed the PI results for the period April 2004 through December 2004. For the assessment period, the inspectors reviewed cumulative and projected doses to the public, out-of-service effluent radiation monitors and selected compensatory sampling data, and two CRs related to RETS/ODCM issues. The inspectors also reviewed licensee procedural guidance for collecting and documenting PI data. Documents reviewed are listed in the Attachment.

Occupational Radiation Safety Cornerstone
- Occupational Exposure Control Effectiveness

The inspectors reviewed the PI results for the period from April 2004 through December, 2004. For the assessment period, the inspectors reviewed electronic dosimeter alarm logs and two CRs related to controls for exposure significant areas. The inspectors also reviewed licensee procedural guidance for collecting and documenting PI data. 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

a. Inspection Scope

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 hard copies of each condition report and accessing the licensee's computerized database.

2. Annual Sample Review

a. Inspection Scope

The inspectors performed detailed reviews of the following two CRs 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 procedure NMP-GM-002, Corrective Action Program, and 10 CFR 50, Appendix B.

- CR 2005100077, Increased Unit 1 Drywell Floor Drain Leakage
- CR 2005100649, Dropped Double Blade Guide in the Unit 2 Spent Fuel Pool

b. Findings and Observations

No findings of significance were identified. The inspectors noted that the CRs were timely and accurately described the condition, the cause evaluations were thorough, and the corrective actions appeared to address the identified causes and were appropriately scheduled.

4OA5 Other Activities

1. Independent Spent Fuel Storage Installation (ISFSI) Radiological Controls

a. Inspection Scope

The inspectors observed gamma-ray, neutron, and contamination surveys of the ISFSI facility and compared the results to previous monthly surveys and TS limits. The inspectors also observed and evaluated implementation of radiological controls, including RWPs and postings, and discussed the controls with an HPT and health physics supervisory staff. One CR and one procedure for ISFSI radiological controls were also reviewed and discussed. Radiological control activities for ISFSI areas were evaluated against 10 CFR Part 20, 10 CFR Part 72, ISFSI TS, and ISFSI Certificate of Compliance. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

2. Temporary Instruction (TI) Status

The following TIs were previously documented in the associated integrated inspection report (IIR). This section is provided to administratively update the TI status stated in the IIR with the current status. This completes the regional inspection requirements for these TIs.

TI Number	IIR Number	IIR Status	Current Status
2515/154	05000321, 05000366/2004002	Discussed	Closed
2515/156	05000321, 05000366/2004003	Discussed	Closed

3. Task Interface Agreement (TIA) 2005-003 Related to the Operability and Validity of the Local Leak Rate Testing of the Main Steam Isolation Valves - Plant Edwin I. Hatch

During local leakrate testing of main steam isolation vavles, the residents determined there were additional questions concerning the local leak rate testing performed. NRC Region II has requested technical assistance from the office of Nuclear Reactor Regulation via TIA 2005-003. This TIA is available from the NRC's document system (ADAMS) as accession number ML051160420. ADAMS is accessible from the NRC Web site at *http://www.nrc.gov/reading-rm/adams.html*.

4OA6 Meetings, Including Exit

1. Exit Meeting Summary

On April 7, the inspectors presented the inspection results to Mr. Dennis Madison and the other members of his staff who acknowledged the findings. The inspectors confirmed that appropriate controls were implemented for proprietary information provided to the resident office during the inspection.

2. Annual Assessment Meeting Summary

On April 13, the NRC's Chief of Reactor Projects Branch 2 and Resident Inspector assigned to the Edwin I. Hatch Nuclear Plant (HNP) met with Southern Nuclear Operating Company to discuss the NRC's Reactor Oversight Process (ROP) and the NRC's annual assessment of HNP safety performance for the period of January 1, 2004 - December 31, 2004. The major topics addressed were: the NRC's assessment program and the results of the HNP assessment. This meeting was open to the public. A listing of meeting attendees and information presented during the meeting are available from the NRC's document system (ADAMS) as accession number ML051150126. ADAMS is accessible from the NRC Web site at *http://www.nrc.gov/reading-rm/adams.html*.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel
R. Dedrickson, Assistant General Manager - Plant Support
J. Dixon, Health Physics Manager
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

2515/154 (Units 1 and 2)	TI	Spent Fuel Material Control and Accounting at Nuclear Power Plants (Section 4OA5.2)
2515/156 (Units 1 and 2)	TI	Offsite Power System Operational Readiness (Section 4OA5.2)

Opened and Closed

05000321, 366/2005002-01	NCV	Failure to Implement Appropriate DOT Type A Package Closure Requirements (Section 2PS2)

LIST OF DOCUMENTS REVIEWED

Section 1R04: Equipment Alignment

Procedures
34SO-E11-010-2, Residual Heat Removal System
34SV-E21-001-2, Core Spray Pump Operability
34SO-E21-001-2, Core Spray System
34SO-G41-003-1, Fuel Pool Cooling and Cleanup System
34AB-G41-001-2, Loss of Fuel Pool Cooling
34SO-E41-001-2, High Pressure Coolant Injection System
34-SO-R43-001-2, Diesel Generator Standby AC System
Drawings: H-26014, H-26015, H-21039, H-26018, H-16002, H-16003, H-26020, H-26021, S-25176
CRs: 2004100749, 2004101047, 2004102961, 2004105442, 2004105690, 2004106361, 2004106850, 2005103865, 2005103870
Unit 2 FSAR Section 9.1.2, Wet Spent Fuel Storage (HNP-1 and HNP-2)
LER 2000-001-00

Section 1R05: Fire Protection
Drawings: A-43965 Sheets 051B-055B, 058B-060B, 063B-066B, 073B, 104B, 105B, 108B, 113B, 114B and A-43966 Sheet 073B

Section 1R07: Heat Sink Performance
Procedure 42IT-TET-012-2S, Plant Service Water and RHR Service Water Piping Inspection
CR's: 2005102829, 2004111945, 2004111546, 2005102378, 2005102379, 2005103079, 2005103180, 2005103181
MWO's: 2040520401, 2050603301
Drawings: HB-26014, H-21039, H-21306, HL-26014

Section 1R08: Inservice Inspection Activities
Procedures
ES-MISN-H-401, PDI Generic Procedure for the Ultrasonic Examination of Ferritic Pipe Welds, Revision 1.0
ES-MISN-H-402, PDI Generic Procedure for the Ultrasonic Examination of Austenitic Pipe Welds, Revision 1.0
ES-MISN-H-600, Color Contrast, Solvent Removable Liquid Penetrant Examination, Revision 1.0
ES-MISN-H-750, Visual Examination pf Reactor Pressure Vessel Internals, Revision 2.0
GE-UT-209, Procedure for Automated Ultrasonic Examination of Dissimilar Metal Welds, and Nozzle to Safe End Welds, Revision 16.0
GE-UT-705, Procedure for the Examination of Reactor Pressure Vessel Nozzle Inner Radius and Nozzle to Vessel Welds with Geris 2000 OD in Accordance with Appendix VIII, Revision 4.0
GE-UT-704, Procedure for the Examination of the Reactor Pressure Vessel Welds with Geris 2000 OD in Accordance with Appendix VIII, Revision 7.0
GE-UT-311, Procedure for Manual Ultrasonic Examination of the Nozzle Inner Radius, Bore and Selected Nozzle to Vessel Regions, Revision 10.0
GE-UT-240, Procedure for Automated Phased Array Ultrasonic Flaw Detection and Length Sizing in Austenitic and Ferrictic Piping Welds with Tomoscan III, Revision 0
CRs: 2005101648, 2005101492, 2005101414
Indication Notification Reports: H2R18-IVVI-05-01, H2R18-IVVI-05-02, H2R18-IVVI-05-03

Section 1R12: Maintenance Effectiveness
Procedures
42SV-TET-001-2, Primary Containment Periodic Type B and Type C Leakage Tests;
34SV-B21-002-2, Main Steam Line Isolation Valve Trip Test

MWOs: 2050518101, 2050541901, 2050454301, 2040834401, 2040835201, 2040834801, 2041415501, 2050438201, 2050439401, 2041771901, 2040832901, 1050066101, 2050461301, 1050065901
CRs: 2005101459, 2005102174, 2005101218, 2005101217, 20051011683, 2005101268, 2005101562, 2005102182, 2005102403, 2005102055, 2005102170, 2005100182, 2005100183, 2005100195, 2005100389, 2005100416, 2005101703, 2005101638, 2005101742, 2005102989, 2005103000, 2005103110, 2004112123, 2004109685, 2004107949, 2004107978, 2004103308, 2004103259, 2004106948, 2004103805
1C11-2C11 CRD Hydraulic System Health Report for 2nd and 4th Quarters 2004
Issue 005 CRD Sticking Long Range Plan

Section 1R14: Personnel Performance During Non-routine Plant Evolutions
CR's: 2005101630, 2005101331, 2005101332, 2005101335
Procedure 34AB-Y22-001-0, Man-Made Hazards to Plant Operation and Personnel
MSDS for "SUVA" Cold-MP
Drawing H-26080

Section 1R15: Operability Evaluations
Procedures
34SV-C11-004-1, CRD Timing
40AC-ENG-016-0, Reactivity Management Program
42SP-021805-OO-1-2, Replacement and Inspection of Tee-Quencher Bolts
Drawings: H-16064, S-19206, H-26094, H-25066, S-21708
Operating Order OO-01-0105S
CR's: 2005102226, 2005102329, 2005102574, 2005101539, 2005101534, 2005102373, 2005101569, 2005102211, 2005102217, 2005102321
Altran Progress Report - Failure Analysis of Two Tee Quencher Bolts from Plant Hatch Torus
DOEJ-BC-2050498201-001 in Support of RER 2050498201, T-Quencher Failed Bolt Analysis

Section 1R19: Post Maintenance Testing
Procedures
42EN-ENG-014-0, Section XI Repair/Replacement
52PM-B21-001-2, Safety Relief Valve Discharge Line Vacuum Breaker Preventive Maintenance
34SV-C11-005-2, CRD System Charging Water Check Valve 2C11-HCU-115 Closure Test
34SV-R43-001-1, Diesel Generator 1A Monthly Test; 42SV-C11-003-0, Control Rod Scram Testing
34SV-C11-004-2, CRD Timing; 42IT-TET-006-2, ISI Pressure Test of the Class 1 System and Recirc Pump Runback Test
MWOs: 1050000902, 1031070801, 2040837201, 2050409501, 1050559401, 2041012001, 2050681701
CRs: 2005102329, 2005102509

Section 1R20: Refueling and Outage Activities
Clearances: 2-DT-05-2T48-00096, 2-DT-05-2R23-00045, 2-DT-05-2C11-00095, 2-DT-04-E21-00447

Section 1R23: Temporary Plant Modifications
Procedure 34SO-T47-001-1, Drywell Cooling System
MWO's: 1050076201, 1050076202, 2050443201
Drawings: H-16007, H-16011, HB-16011, S-52337, H-27994
DOEJ-SM-04-0577-001, Evaluation for Isolating any One Cooling Coil in any Unit 1 Drywell Cooler or Plugging a Percentage of Tubes in All Coolers
DOEJ-SE-04-3741-001, Evaluation of Anticipated High Temperatures in the Unit 1 Drywell (RER 1042374101)

Section 2OS1: Access Controls to Radiologically Significant Areas
Procedures, Manuals, and Guidance Documents
60AC-HPX-004-0, Radiation and Contamination Control, Rev. 18.1
60RP-RAD-007-0, Radioactive Sources, Rev. 4

62RP-RAD-016-0, Very High and High Radiation Area Access Control, Rev. 19.3
42EN-ENG-039-0, Retired In Place Equipment, Rev. 1
Radiation Work Permit (RWP) Number (No.) 05-2010, Unit 2 Reactor Building - In-Service Inspection (ISI) Activities in all Radiation Areas and Unlocked High Radiation Areas, Rev. 0
RWP 05-2603, Shield Door Activities, Insulation Removal/Replacement, Temporary Ventilation and Supporting Activities Including Subpile Room, Rev. 0
RWP 05-2605, ISI & Supporting Activities, Unit 2 Drywell All Areas and Elevations, Rev. 0
RWP 05-2614, TIP Indexer Work, Removal, Replace TIP Tube, RPIS, IRMS, SRMS, LPRMs, Electrical Activities, Vibration Readings & Supporting Activities (Including Subpile Room), Rev. 0
RWP 05-2615, Control Rod Drive Removal, Replacement, Transport and Supporting Activities, Rev. 0

Records and Data
Malfunctioning/Alarming Dosimeter Investigations, January 1, through February 28, 2005
Survey No. 13144, Unit 1 Radwaste 108 Foot (') Elevation, 11/15/04
Survey No. 15022, Unit 2 Radwaste 103' Elevation, 02/09/05
Survey No. 16388, Survey of Potentially Contaminated Clothing, 3/3/05
Survey No. 15601, Unit 2 Turbine Building 164' Elevation, 2/17/05
Survey No. 15530, Unit 2 Drywell 180' Elevation, 2/16/05
Survey No. 15456, Unit 2 Torus 114' Elevation, 2/15/05
Survey No. 15151, Unit 1 Drywell Access Roof, 2/11/05
CRs: 2004111110, 2005102409, 2005102642, 2005102837

Section 2OS2: As Low As Reasonably Achievable
Procedures, Manuals, Guidance Documents
60AC-HPX-001-0, Radiation Exposure Limits, Rev. 10.3
60AC-HPX-009-0, ALARA Program, Rev. 17.1
62RP-RAD-001-0, Dosimetry Issuance and Tracking, Rev. 13.0
62RP-RAD-012-0, Selection and Use of Temporary Shielding, Rev. 1.2

Records and Data
Unit 2 Recirculation Piping Dose Rate Trending (BRAC Point) Data, 8/83 - 9/04
2R18 Shutdown RWCU Insoluble Activity Trending Data, 2/4/05 - 2/6/05
Unit 2 Reactor Nozzle Pre- and Post-Flushing Dose Rate Data, 2/10/05 and 2/12/05
Declared Pregnant Worker Dosimetry Records, CY 2003 - 2004
2R18 ALARA Review Packages: Drywell ISI and CRD Removal/Replacement
2R18 Shielding Package (Requests, Evaluations, Dose Rate Log)
RWP No. 05-2010, Unit 2 Reactor Building - ISI Activities in all Radiation Areas and Unlocked High Radiation Areas, Rev. 0
RWP No. 05-2605, Unit 2 Drywell - ISI & Supporting Activities, Rev. 0
Survey No. 15530, Unit 2 Drywell 180' Elevation, 2/16/05
Survey No. 15456, Unit 2 Torus 114' Elevation, 2/15/05
Survey No. 14725, Unit 2 Drywell 127' Elevation, 2/5/05
Survey No. 16055, Unit 2 Reactor Building 228' Elevation, 2/25/05
Survey No. 15462, Unit 2 Recirculation Riser A, 2/15/05
Individual Employee Access Record, Unit 2 Recirculation Riser A, 2/16/05 10:03 - 13:36
2R18 Daily RWP Dose Data Sheets: 2/14/05 - 2/18/05 and 2/28/05 - 3/4/05
Audit No. H-HP-2004, Plant E. I. Hatch Audit of Health Physics, 5/19/04 - 9/23/04

SA04-HPC-03, Team Self-Assessment ALARA/Exposure Control, 8/2/04 - 8/6/04
SA03-HPC-03, Focused Self-Assessment HP/ALARA, 12/15/03 - 12/19/03
CRs: 2004110103, 2005100299, 2005100301, 2004108532, 2005101886

Section 2PS2: Radioactive Material Processing and Transportation

Procedures, Manuals, and Guidance Documents

NA-OJ-20800-00, Southern Nuclear Company (SNC) E.I. Hatch Plant On-the-Job Training Module, Radwaste Shipment, 12/12/01
Edwin I. Hatch Nuclear Plant Solid Radioactive Waste Process Control Program, Rev. 5
60AC-HPX-004-0, Radiation and Contamination Control, Rev. 18.1
60RP-RAD-007-0, Radioactive Sources, Rev. 4
62RP-RAD-011-0, Shipment of Radioactive Material, Rev. 12.1
62RP-RAD-023-0S, Resin Packaging and Classification, Rev. 7.1
62RP-RAD-040-0, ED2 Resin Dewatering/Drying System Radiation Protection Procedure, Rev. 7.3
62RP-RAD-042-0, Solid Radwaste Scaling Factor Determination and Implementation, Rev. 5
62RP-RAD–007-0, Radioactive Sources, Rev. 4.0
62RP-RAD–016-0, Very High and High Radiation Area Access Control, Rev. 19.3
42EN-ENG-039-0, Retired In Place Equipment, Rev. 1

Records and Data

Regulatory Guide 1.21 Effluent and Waste Disposal Semi-Annual Report of Solid Waste and Irradiated Fuel Shipments, January - June 04, and July - December 04
HPX-0265, Rev. 2, Inventory and Leak Test Data Sheets, 11/02/04
HPX-0264, Rev. 0, Attachment 3, Liquid Source Dilution Sheet for Source Identification Numbers Cs-137-29-A1 and Cs-137-29-A2, as of 03/02/05
2005 Waste Stream Scaling Factor Summaries for Dry Active Waste (DAW); Unit 1 & Unit 2 Spent Resin, Unit 1 & Unit 2 Condensate Phase Separator (CPS) Resin, dated 01/26/05:
Supported by Applicable Calendar Year (CY) 2005 to CY 2004 Data Base Comparison Reports for Scaling Factors, Sample Abundance, and Data Values.
Shipment No. 04-1001, Radioactive Material, n.o.s., 7, UN2982, Fissle Excepted, Recirc Pump Impeller, shipped 04/06/04; Reviewed Supporting Shipment Documentation Included: Uniform Low-Level Radioactive Waste Manifest Shipping Paper, Container and Waste Description; Straight Bill of Lading; RADMAN Summaries for Department of Transportation (DOT) Shipment Classification, Nuclide Concentration, 10 CFR Part 61 Documentation; Radioactive Material Shipment Record, South Carolina Department of Health and Environmental Control (SC DHEC); SC DHEC Radioactive Waste Shipment Prior Notification and Manifest Form, Radioactive Waste Certification Form; Truck Survey Map-Cask; Cask and Liner Inspection Checklist; Cask Users Checkoff Sheet; and Instructions for Emergency Response and Maintenance of Exclusive Use Shipment Controls
Shipment No. 05-5003, Radioactive material, low specific activity (LSA-II), 7, UN3321, Fissile Excepted, Dewatered Resins, Shipped 02/15/05; Shipment No. 05-5002, Radioactive material, low specific activity (LSA-II), 7, UN3321, Fissile Excepted, Dewatered Resins, Shipped 02/08/05; Shipment No. 05-5001, Radioactive material, low specific activity (LSA-II), 7, UN3321, Fissile Excepted, Dewatered Resins, Shipped 01/18/05; Shipment No. 04-5032, Radioactive material, low specific activity (LSA-II), 7. UN3321, Fissile Excepted, RQ - Radionuclides, Dewatered Resins, Shipped 01/04/05. Supporting Documentation Reviewed for the Listed Shipments Included: Uniform Low-Level Radioactive Waste Manifest Shipping

Paper, Container and Waste Description; Straight Bill of Lading; RADMAN Summaries for DOT Shipment Classification, Shipment Classification for Type A/B and RQ, Nuclide Concentration, 10 CFR Part 61 Documentation, and Mixdat Concentration Averaging Report; Truck Survey Map- Cask; Cask and Liner Inspection Checklist; Cask Users Checkoff Sheet; and Instructions for Emergency Response and for Maintenance of Exclusive Use Shipment Controls

Shipment No. 05-2017, Radioactive material, Type A Package, 7, UN2915, Fissile Excepted, CRD (NSB), Shipped 02/23/05; Shipment No. 05-2016, Radioactive material, Type A package, 7, UN2915, Fissile Excepted, CRD (NSB), Shipped 02/24/05; Shipment No. 05-2018, Radioactive material, Type A Package, 7, UN2915, Fissile Excepted, CRD (NSB), Shipped 02/23/05. Supporting Documentation Reviewed for the Listed Shipments Included: Radioactive Material Manifest Shipping Paper; Straight Bill of Lading; Miscellaneous Container Checklist; Truck Survey Map - Van; HPX-0002 Radiation Survey Records for CRD Box Nos. 1350 and 1018, conducted 02/18/05, CRD Box No. 1055, conducted 02/17/05, and Box Nos. 966, and 1051, conducted 02/18/05; Instructions for Emergency Response and Maintenance of Exclusive Use Shipment Controls

Shipment No. 04-2011, Radioactive material, n.o.s., 7, UN2982, Fissile Excepted, Unit 1CRDS; Shipped 03/04/04; Shipment No. 04-2012, Radioactive material, n.o.s., 7, UN2982, Fissile Excepted, Unit 1CRDS; Shipped 03/04/04; and Shipment No. 04-2013, Radioactive material, n.o.s., 7, UN2982, Fissile Excepted, Unit 1CRDS; Shipped 03/04/04. Supporting Documentation Reviewed for the Listed Shipments Included: Radioactive Material Manifest Shipping Paper; Straight Bill of Lading; Miscellaneous Container Checklist; Truck Survey Map - Van; HPX-0002 Radiation Survey Records for CRD Box Nos. 1348, conducted 02/28/04, Nos. 1340 NS 1352, conducted 02/28/04, and CRD Box Nos. 1350, and 1351, conducted 02/28/04; Instructions for Emergency Response and Maintenance of Exclusive Use Shipment Controls

Shipment No. 03-2013, Radioactive material, n.o.s., 7, UN2982, Fissile Excepted, Contaminated Control Rod Drives, and Radioactive material, n.o.s., 7, UN2982, Fissile Excepted, RQ-Radionuclides, Contaminated Control Rod Drives, Shipped 03/13/03; Shipment No. 03-2014, Radioactive material, n.o.s., 7, UN2982, Fissile Excepted, RQ-Radionuclides, Contaminated Control Rod Drives, Shipped 03/13/03; and Shipment No. 03-2015, Radioactive material, n.o.s., 7, UN2982, Fissile Excepted, Contaminated Control Rod Drives, Shipped 03/19/03. Supporting Documentation Reviewed for the Listed Shipments Included: Radioactive Material Manifest Shipping Paper; Straight Bill of Lading; Miscellaneous Container Checklist; Truck Survey Map- Van; Instructions for Emergency Response and Maintenance of Exclusive Use Shipment Controls

Shipment No. 04-6023, Radioactive material, excepted package-limited quantity of material, 7, UN2910, Fissile Excepted, DAW Bulk, Shipped 11/11/04. Reviewed Supporting Documentation Included: Uniform Low-Level Radioactive Waste Manifest Shipping Paper, Container and Waste Description; Straight Bill of Lading; RADMAN DOT Shipment Classification and Nuclide Concentration Summaries, 10 CFR Part 61 Documentation; WM-A- 501-F1 Shipment Summary; HPX-0002 Trailer Radiation Survey Conducted 11/09/04

Drawings: H-26031 Sheet No. 6, H-26032 Sheet No. 7, H- 26033 Sheet No. 7,

As Built Notice No. 1042083901-1, for Limited Plant Alteration to Allow Disconnection of High Pressure Washer (ID40-C001) and Dip Tank (ID40-A001) in Radwaste Decon Room , 10/19/04

Plant Hatch Quality Assurance 2003/2004 Updated Audit Planning Matrix, Schedule and Status Report, 12/03

CRs: 2003113340, 2004111108, 2004111237, 2004111262, 2004101921, 2004102382, 2004109676, 2003113340, 2004101921, 2004102382, 2004109676, 20044111237, 2004111262, 2004111108, 2005101950

Section 4OA1: Performance Indicator Verification

Procedure 00AC-REG-005-0, Preparation and Reporting of NRC PI Data, Rev. 3.1
Out of Service Effluent Monitor Logs, April, 2004 - March, 2005
Gaseous Effluent Release Permit Nos. 50009.018.003.G and 40125.018.031.G
Liquid Effluent Release Permit No. 40339.008.031.L
Electronic Dosimeter Alarm Logs, April, 2004 - March, 2005
CRs: 2004107611, 2004106385, 2004104943, 2004110581

Section 4OA2: Identification and Resolution of Problems

CRs: 2004111128, 2004109448, 2004109447, 2004109986, 2004101168, 2004101917, 2005100649

Section 4OA5: Other Activities

ISFSI

Procedure 62RP-RAD-047-0, Independent Spent Fuel Storage Installation and Radiological Controls, Rev.1.3
RWP No. 05-0048, Dry Cask Mobilization, Demobilization, & Support Work, Rev. 0
RWP No. 05-0058, Dry Cask Loading and Transport to ISFSI, Rev. 0
CoC No. USA/72-1008, HI-STAR 100 Cask System, Initial Certificate
CoC No. USA/72-1014, HI-STORM 100 Cask System, Amendment No. 1
Radiological Survey No. 13540, ISFSI Area, 12/08/04
Radiological Survey No. 13994, ISFSI Area, 01/05/05
CR 2004107045