UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
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ATLANTA, GEORGIA 30303-8931

July 15, 2004

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

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT - NRC INTEGRATED INSPECTION REPORT 05000321/2004003, 05000366/2004003

Dear Mr. Sumner:

On June 26, 2004, the US Nuclear Regulatory Commission (NRC) completed an inspection at your Hatch Nuclear Plant, Units 1 and 2. The enclosed integrated inspection report documents the inspection findings, which were discussed on July 8, 2004, with Mr. George Frederick and other members of your staff.

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

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

Sincerely,

/RA/

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

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

Enclosure: Inspection Report 05000321/2004003 and 05000366/2004003
w/Attachment: Supplemental Information

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REGION II

Docket Nos:	50-321, 50-366
License Nos:	DPR-57, NPF-5
Report No:	05000321/2004003 and 05000366/2004003
Licensee:	Southern Nuclear Operating Company, Inc. (SNC)
Facility:	Edwin I. Hatch Nuclear Plant
Location:	P.O. Box 2010 Baxley, Georgia 31515
Dates:	March 28 - June 26, 2004
Inspectors:	D. Simpkins, Senior Resident Inspector J. Hickey, Resident Inspector C. Rapp, Senior Project Engineer (Sections 1R05 and 4OA1) A. Nielsen, Health Physicist (Sections 2OS1 & 2PS1) J. Kreh, Radiation Specialist (Section 2OS3) W. Loo, Team Leader, PSB (Sections 2PS3 & 4OA1)
Accompanying Personnel:	H. Gepford, Health Physicist
Approved By:	Brian R. Bonser, Chief Reactor Projects Branch 2 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000321/2004-03, 05000366/2004-03; 03/28/2004 - 6/26/2004**;** Edwin I. Hatch Nuclear Plant, Units 1 & 2; routine integrated report

The report covered a three-month period of inspection by resident inspectors and a regional Senior Project Engineer and announced inspections by regional health physicists.

A. NRC-Identified and Self-Revealing Findings

No findings of significance were identified.

B. Licensee-Identified Violations

None

Enclosure

REPORT DETAILS

Summary of Plant Status

Unit 1 operated at or near 100 percent Rated Thermal Power (RTP) during the inspection period, except for a power reduction to about 35 percent RTP on April 17 to repair the 1B recirculation pump motor generator tachometer coupling, a recirculation pump runback to 78 percent RTP on April 23 from a step change in feedwater flow during power uprate testing, and three brief power reductions to about 83 percent RTP in May to repair plant service water piping and valves. During the inspection period a power uprate was completed which increased the RTP from 2763 Megawatts Thermal (MWt) to 2804 MWt.

Unit 2 operated at or near 100 percent Maximum Operating Power (MOP) during the inspection period, except for a power reduction on June 18 to about 90 percent MOP in order to replace the 2B condensate pump motor.

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 the licensee hot weather preparations. The inspectors reviewed licensee procedure DI-OPS-56-0293N, Hot Weather Operation, and walked down the completed portions of the procedure. The inspectors reviewed licensee document HNEL-WP-59, Drought Contingency Actions, and licensee procedure 34AB-Y22-002-0, Naturally Occurring Phenomena, to verify that the ultimate heat sink would remain operable for known summer related conditions. In addition, the inspectors reviewed the Technical Specifications (TS) and Final Safety Analysis Report (FSAR) to verify that the three following systems would remain operable during peak high temperature summer months.

- Plant Service Water (PSW)
- Residual Heat Removal (RHR)
- Emergency Diesel Generators (EDGs)

Impending Adverse Weather Conditions. The inspectors performed a review of the licensee's response to an electrical storm on April 8 as well as corrective actions resulting from a site lightning strike to verify the licensee's actions were in accordance with licensee procedure 34AB-Y22-002-0, Naturally Occurring Phenomena. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment

a. Inspection Scope

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

- EDGs 2A and 2C during 1A, 1B and 1C EDG Testing
- Main Control Room Environmental Control (MCREC) Train A during MCREC Train B system outage
- 1B and 1C EDG and related PSW system during 1A EDG system outage

Complete Walkdown. The inspectors performed a complete walkdown of the Unit 1 4160V emergency AC power system including the EDGs. 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.

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

Fire Area Tours. The inspectors toured 12 risk significant plant areas to assess the material condition of the fire protection and detection equipment and to 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.

- Oil Storage Room 1B
- Oil Storage Room 1C
- Battery Room 1C
- Battery Room 2A
- Battery Room 2C
- Switchgear Room 1G
- Switchgear Room 1F
- Switchgear Room 2E

- Switchgear Room 2F
- Switchgear Room 2G
- Intake Structure
- Diesel Generator Room 1B

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures

a. Inspection Scope

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

- Unit 1 Northeast diagonal - Loop A RHR/Core Spray (CS)
- Unit 1 Southeast diagonal - Loop B RHR/CS
- Unit 1 Torus
- Unit 1 High Pressure Core Injection (HPCI) room
- Unit 1 Reactor Core Isolation Cooling (RCIC) room

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-50907-03 which included a loss of off-site power from high winds, a reactor scram, a Group I isolation, EDG complications which required manual operator actions, and failure of HPCI and RCIC which required the performance of an emergency depressurization. The inspectors reviewed licensee procedures 10AC-MGR-019-0S, Procedure Use and Adherence, and DI-OPS-59-0896N, Operations Management Expectations, to verify formality of communication, procedure usage, alarm response, control board manipulations, group dynamics, and supervisory 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. For the equipment problems identified below, the inspectors reviewed operator logs, associated Condition Reports (CR), Maintenance Work Orders (MWO) 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.

- CR 2004104390, Unit 1 Reactor Core Isolation Cooling goes into a(1) Status
- CR 2004105273, Failure of the Reliance Pump Motor on PSW Pump 1D

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 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 Week of April 10-16
- POD for Week of April 17-23
- POD for Week of April 24-30
- POD for Week of May 15-21
- POD for Week of May 22-28

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Non-routine Plant Evolutions

a. Inspection Scope

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

- Power Reduction to Replace the 1B Recirculation Pump Motor Generator Tachometer Coupling
- Unit 1 Runback to 78 percent Power from Low Reactor Feed Pump Suction Pressure

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 TS and the FSAR to ensure operability was adequately assessed and the system or component remained available to perform it's 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.

- Heat Detection and Water Spray Protection Removed for PM Activities for 1A and 1B Standby Gas Treatment
- 2A CS Loop Pressure Increase
- 2A PSW Pump Oil Leaks
- Unit 1 HPCI Discharge Check Valve Bonnet Bolts Loose
- HPCI Steam Trap 1E41-D001 steam leak

b. Findings

No findings of significance were identified.

1R16 Operator Work-Arounds

a. Inspection Scope

Cumulative Review. The inspectors reviewed cumulative conditions on both units during the report period that required compensation by the operators. The inspectors reviewed the licensee's operator workarounds and significant operator workarounds to assess the increase in plant risk due to the cumulative effects of all the items combined. The inspectors focused on the ability of operators to operate equipment affected by the

workarounds during a plant event. The inspectors also reviewed the operations needs list to verify no actions that could be an operator workaround existed. The inspectors reviewed licensee procedure DI-OPS-61-1196N, Control and Tracking of Operator Work-Arounds, as well as pertinent condition reports to verify the licensee had entered these conditions into the corrective action program.

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing

a. Inspection Scope

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

- Unit 1 HPCI Discharge Check Valve
- MCREC Train B outage Restoration
- 2B Condensate Pump Replacement
- Unit 2 RCIC Steam Leak Between 2E51-F026 and F095
- Repair of the 1B Recirculation Pump Motor Generator Tachometer Coupling

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

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

Surveillance Tests
- 34SV-R43-013-2, Diesel Generator 2C 24 Month Operability Test
- 34SV-R43-001-1, Diesel Generator 1A Monthly Test

- 34SV-E21-002-1, Core Spray Valve Operability
- 34SV-R43-003-1 Diesel Generator 1C Monthly Test

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

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed and assessed the following temporary modification using criteria as defined in licensee procedure 40AC-ENG-018-0, Temporary Modification Control. The inspectors also verified the modification was installed in accordance with the temporary modification requirements.

- TMM 01-04-016, 1A Recirculation Motor Bearing Temperature Setpoints Lowered

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Prepardness

1EP6 Drill Evaluation

a. Inspection Scope

The inspectors observed two emergency plan drills conducted on April 4 and May 12. The inspectors observed licensee activities in the simulator and Emergency Operations Facility (EOF) to verify implementation of licensee procedure 10AC-MGR-006-0S, Hatch Emergency Plan. The inspectors reviewed the classification of the simulated event and the development of protective action recommendations to verify these activities were conducted in accordance with licensee procedure 73EP-EIP-001-0, Emergency Classification and Initial Actions. The inspectors also reviewed licensee procedure 73EIP-073-0, Onsite Emergency Notification, to verify the proper offsite notifications were made. The inspectors attended the post-exercise critique to assess the licensee's effectiveness in identifying areas of improvement.

Additionally, the inspectors observed a simulator evolution on May 12 to verify the licensed operators' actions were sufficient for emergency classification, notification and PAR development activities.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control To Radiologically Significant Areas

a. Inspection Scope

Access Controls. Licensee activities for monitoring workers and controlling access to radiologically significant areas were evaluated. The inspectors reviewed procedural guidance and directly observed implementation of administrative and physical controls; appraised radiation worker and technician knowledge of, and proficiency in implementing, radiation protection program activities; and assessed worker exposures to radiation and radioactive material.

Radiological postings and material labeling were directly observed during tours of the Unit 1 and Unit 2 turbine and reactor buildings. The inspectors took independent surveys in these areas to verify posted radiation levels and to compare with current licensee survey records. During the plant tours, control of Locked High Radiation Area (LHRA) and Very High Radiation Area (VHRA) keys and the physical status of locked doors were examined. In addition, the inspectors observed radiological controls for non-fuel items stored in the spent fuel pools. The inspectors reviewed selected parts of eight Health Physics (HP) related procedures, evaluated two radiation work permits (RWPs), and discussed current access control program implementation with HP supervisors.

During the onsite inspection, radiological controls for work activities in High Radiation Areas (HRAs) were observed and discussed. The inspectors attended a pre-job briefing for Unit 2 Mitigation Monitoring Skid (MMS) chemistry coupon removal and directly observed the work activities involved. The inspectors observed workers' adherence to RWP guidance and HP Technician (HPT) proficiency in providing job coverage. Controls for monitoring and limiting exposure to airborne radioactive material were reviewed. The inspectors evaluated electronic dosimeter alarm setpoints for consistency with radiological conditions in and around the MMS. In addition, the inspectors reviewed the use of extremity dosimetry and other HP controls for work done in HRAs around a RHR valve during the previous Unit 1 refueling outage.

The inspectors evaluated worker exposures through review of data associated with discrete radioactive particle and internal contamination events. The inspectors reviewed contamination records from the previous Unit 1 refueling outage and evaluated dose calculations and procedural guidance.

HP program activities were evaluated against 10 CFR Part 20; TS Section 5, Administrative Controls; Regulatory Guide (RG) 8.38, Control of Access to High and Very High Radiation Areas in Nuclear Power Plants; and approved licensee procedures. Licensee guidance documents, records, and data reviewed are listed in the Attachment.

Problem Identification and Resolution. Three CRs and one audit associated with HPT and radworker practices; radiological controls; personnel monitoring; and exposure assessments were reviewed and discussed with HP supervisors. The inspectors assessed the licensee's ability to identify, characterize, prioritize, and resolve selected issues in accordance with licensee 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.

2OS3 Radiation Monitoring Instrumentation and Protective Equipment

a. Inspection Scope

Radiation Monitors. The operability, reliability, and maintenance of area radiation monitors (ARMs) and continuous air monitors (CAMs) were reviewed and evaluated. During plant walkdowns, the inspectors examined the material condition and verified current calibration dates of approximately 55 fixed ARMs, 6 portable ARMs, and 5 CAMs, and reviewed documentation of performance checks and calibrations for selected monitors.

Licensee program activities in this area were reviewed against requirements specified in applicable procedures and in Chapters 7, 11, and 12 of the FSAR. Licensee procedures, records, data, and other documents reviewed within this inspection area are listed in the Attachment.

Portable and Personnel Survey Instrumentation. Current program guidance, including procedures for calibration and operation, and its implementation to maintain operability and accuracy of selected personnel survey instrumentation, were reviewed and evaluated. The inspectors reviewed current calibration data for selected portable survey instruments and assessed operability of various survey instruments staged or in use by HP staff. Responsible staff's knowledge and proficiency regarding portable survey instrument calibration activities were evaluated through interviews, record reviews, and observations of plant activities. The accuracy and operability determinations for instrumentation used to perform surveys in high radiation or greater areas were assessed. The inspectors observed and evaluated HPT selection of portable radiation measurement and air sampling devices for use in job coverage of MMS chemistry coupon removal work.

Operability and analysis capabilities of the licensee's whole-body counter (WBC), personnel contamination monitor (PCM), and portal monitor (PM) equipment were reviewed and evaluated. For the WBC and selected PCMs and PMs, current calibration and recent operational/performance test surveillance data, as applicable, were evaluated. For selected PMs and PCMs located at the main Radiologically Controlled Area (RCA) exit (C-52) and the Turbine Building RCA exit (T-17), the inspectors directly observed equipment responses to mixed plant-specific radioactive sources (approximately 5,000 disintegrations per minute) positioned at various orientations and distances from the individual detectors to simulate potential worker contamination.

Licensee activities associated with personnel radiation monitoring instrumentation were reviewed against TS, 10 CFR 20.1501, and applicable licensee procedures listed in the Attachment, along with information regarding the instruments which were inspected in detail.

Respiratory Protection Equipment–Self-Contained Breathing Apparatus (SCBA). The licensee's respiratory protection program guidance and its implementation for SCBA use were evaluated. The SCBA units staged for emergency use in the control room and other selected locations were inspected for material condition, air pressure, and number of units available. The inspectors reviewed and evaluated maintenance of SCBA equipment and certification records associated with supplied air quality. Proficiency and knowledge of staff responsible for maintaining SCBA equipment were evaluated through discussions, demonstrations of SCBA functional checks, and review of training records. Four control room operations personnel were interviewed to determine their knowledge of available SCBA equipment locations, including corrective lens inserts if needed, and their training on replacement of air bottles during a period of extended SCBA use. The inspectors assessed the licensee's arrangements for transporting replacement air bottles from the onsite refill station (located in an outlying building within the protected area) to the control room and Operational Support Center.

Licensee activities associated with maintenance and use of SCBA equipment were reviewed against 10 CFR Part 20.1703; RG 8.15, Acceptable Programs for Respiratory Protection, Revision 1, October 1999; American National Standards Institute (ANSI)-Z88.2-1992, American National Standard Practices for Respiratory Protection; and applicable procedures as listed in the Attachment.

Problem Identification and Resolution. Issues identified through HP departmental self-assessments and Corrective Action Program (CAP) documents associated with radiation monitoring instrumentation and SCBA were reviewed and discussed with cognizant licensee representatives. The inspectors assessed the licensee's ability to identify, characterize, prioritize, and resolve selected issues in accordance with licensee procedure NMP-GM-002-GL02. Special assessments and CRs reviewed and evaluated in detail for this inspection area are identified in the Attachment.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety

2PS1 Radioactive Gaseous and Liquid Effluent Monitoring Systems

a. Inspection Scope

Effluent Processing Equipment. The inspectors reviewed and evaluated the operability, availability, and reliability of selected radioactive effluent process sampling and detection equipment used for routine and accident monitoring activities. Inspection activities consisted of direct observation of installed equipment configuration and operation, and review of calibration and performance data for the liquid and gaseous effluent process systems.

During walk-downs, accessible sections of the Unit 1 liquid radioactive waste (radwaste) system, including floor drain tanks, waste sample tanks, system piping, and Liquid Radwaste Effluent Monitor equipment, were assessed for material condition and conformance with current system design diagrams. Inspected components of the gaseous effluent process and release system included parts of the Unit 1 and Unit 2 Offgas Treatment System, Main Stack Effluent Monitor, Reactor Building Vent Effluent Monitors, and associated effluent flow sample lines. The inspectors interviewed chemistry supervision regarding liquid and gaseous radwaste system configurations, system modifications, and effluent monitor operation. In addition, the inspectors compared Unit 1 reactor building vent flow rates to flow rates in the effluent monitor sample lines to evaluate system operation for isokinetic sampling conditions.

The inspectors reviewed applicable sections of licensee effluent monitor calibration procedures and evaluated results of calibration and/or performance surveillances for selected process monitors and air filtration systems. Reviewed data included the three most recent calibration records for the Unit 1 Liquid Radwaste Effluent Monitor, Main Stack Effluent Monitor, Unit 1 Reactor Building Vent Effluent Monitor, and the Standby Gas Treatment System. The inspectors also reviewed calibration records for the flowmeter devices associated with the Unit 1 Liquid Radwaste and Unit 1 Reactor Building Vent monitors. In addition, out-of-service (OOS) effluent monitor and compensatory action data were reviewed and discussed with HP/chemistry supervisors.

Installed configuration, material condition, operability, and reliability of selected effluent sampling and monitoring equipment were reviewed against details documented in the following: 10 CFR Part 20; RG 1.21, Measuring, Evaluating and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials In Liquid and Gaseous Effluents from Light-Water Cooled Nuclear Power Plants, June 1974; ANSI-N13.1-1969, Guide to Sampling Airborne Radioactive Materials in Nuclear Facilities; ANSI-N13.10-1974, ANS Specification and Performance of On-Site Instrumentation for Continuously Monitoring Radioactivity in Effluents; NUREG-0737, Clarification of TMI Action Plan Requirements, 1980; TS Section 5; the Offsite Dose Calculation Manual (ODCM), Ver. 14; and FSAR, Chapter 11. Procedures and records reviewed during the inspection are listed in the Attachment.

Effluent Release Processing and Quality Control Activities. The inspectors evaluated licensee performance in conducting effluent release processing and Quality Control (QC) activities including implementation of program guidance and chemistry staff proficiency. The inspection consisted of direct observation of sampling and release operations, examination of count room equipment and daily QC activities, and review of effluent release procedural guidance and documentation.

The inspectors directly observed the weekly collection of airborne effluent samples from the Unit 1 and Unit 2 reactor building vent stack monitors and the main stack monitor as part of a continuous gaseous release. The inspectors evaluated chemistry technician proficiency in collecting, processing, and counting the samples, as well as preparing the applicable release permits.

QC activities regarding gamma spectroscopy were discussed with count room technicians and HP supervision. The inspectors reviewed records of daily QC check trending data for the previous six months for High Purity Germanium (HPGe) detector number one. The inspectors also reviewed the three most recent calibration records for HPGe number one and evaluated the data against procedural guidance. In addition, results of the semi-annual radiochemistry cross-check program were reviewed for calendar year (CY) 2002 and CY 2003.

Four procedures for effluent sampling, processing, and release were evaluated for consistency with licensee actions. A liquid and a gaseous release permit were reviewed against procedural guidance and ODCM specifications. For the main stack release, the inspectors performed independent dose calculations for comparison with the doses reported by the licensee. The inspectors also reviewed the CY 2002 and CY 2003 annual effluent reports for effluent release data trends, follow-up of any reported anomalous releases, and proper documentation of ODCM changes.

Observed task evolutions, count room activities, and offsite dose results were evaluated against details and guidance documented in the following: 10 CFR Part 20 and Appendix I to 10 CFR Part 50; ODCM; RG 1.21, RG 4.15, Quality Assurance for Radiological Monitoring Programs (Normal Operation) - Effluent Streams and the Environment, December 1977; RG 1.109, Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50 Appendix I, October 1977; and TS Section 5. Procedures and records reviewed during the inspection are listed in the Attachment.

Problem Identification and Resolution. Four CRs and one audit associated with effluent release activities were reviewed and assessed. The inspectors evaluated the licensee's ability to identify, characterize, prioritize, and resolve selected issues in accordance with licensee procedure NMP-GM-002-GL02. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

2PS3 Radiological Environmental Monitoring Program (REMP) and Radioactive Material Control Program

a. Inspection Scope

REMP Implementation. The licensee's Annual Radiological Environmental Operating Report for CY 2002 was reviewed and discussed with cognizant licensee representatives. The inspectors discussed and evaluated the reported data for trends in radionuclide concentrations, anomalous/missing data, and land-use census information. QC activities and data for selected sample types listed in the reports were reviewed and evaluated including inter-laboratory comparison results, analytical assumptions used in gross beta analyses, calculations for air particulate gross beta lower limit of detection determinations, and CY 2003 semiannual sample pump air flow calibration data.

Equipment operational status and staff proficiency for implementing REMP activities were assessed through review of records, observations of equipment material condition and operating characteristics, and through assessment of selected sample collection activities. Collection of weekly air particulate filters/charcoal cartridges and air flow rate determinations were observed at sampling locations 103, 107, 112, 304, and 309. The placement and material condition of the surface water sampler at sample location 170 was observed. Collection of surface water and sediment samples at sampling location 170, and vegetation samples at sampling location 112, were discussed with sample collection technicians. Collection of milk samples at sampling location 304 and collection of fish samples from sampling locations 170 and 172 were also observed and discussed. During observations of sample collection, the inspectors evaluated the proficiency of staff collecting the samples and assessed the adequacy and implementation of selected collection techniques. The placement and material condition of thermoluminescent dosimetry (TLD) equipment were assessed at sample locations 102, 103, 104, 107, 112, 304, and 309. Using Global Positioning System equipment, the inspectors independently assessed selected TLD and air sampling locations and compared the current location data to ODCM-specified locations.

REMP guidance, implementation, and results were reviewed against the licensee's ODCM and applicable procedures listed in the Attachment.

Meteorological Monitoring Program. Licensee program activities to assure accuracy and availability of meteorological monitoring data were evaluated through review of calibration and surveillance data and direct observation of equipment and readout data at the primary tower, backup tower, and control room. Current calibration data were reviewed and equipment performance, reliability, and conduct of routine surveillances were discussed with technician staff responsible for tower equipment maintenance and inspections. Meteorological availability data were reviewed and discussed with licensee representatives for the period CY 2001 through CY 2003. The inspectors observed performance of the weekly meteorological tower system inspections and daily control room surveillances. The inspectors also verified consistency between meteorological tower local readouts and control room data.

Meteorological instrument operation, calibration, and maintenance were reviewed against details listed in the FSAR, Chapter 2; NRC Safety Guide 23, Onsite Meteorological Programs-1972; ANSI -3.11-2000, Determining Meteorological Information; RG 1.21; RG 4.15, Quality Assurance for Radiological Monitoring Programs (Normal Operation) - Effluent Streams and the Environment, December 1977; and applicable licensee procedures. Reviewed documents and data are listed in the Attachment.

Unrestricted Release of Materials from the RCA. Radiation protection program activities associated with the unconditional release of potentially contaminated materials from RCA egress points were evaluated. Operability and analysis capabilities of the licensee's Small Article Monitor (SAM) instruments were reviewed and evaluated. In addition, responsible staff's knowledge and proficiency regarding SAM instrument calibration activities were evaluated through interviews, record reviews, and direct observations of plant activities. For selected SAM instruments, current calibration and recent operational/performance test surveillance data, as applicable, were observed and evaluated. For selected SAM instruments located at the main RCA exit (C-52) and the Turbine Building RCA exit (T-17), the inspectors directly observed equipment responses to mixed plant-specific radioactive sources (approximately 5,000 disintegrations per minute) positioned at various orientations and distances from the individual detectors to simulate potential contamination.

The inspectors verified that radiation detection sensitivities were consistent with NRC guidance in IE Circular 81-07 Control of Radioactively Contaminated Material, May 14, 1981, and IE Information Notice 85-92. Documents reviewed are listed in the Attachment.

Problem Identification and Resolution. Selected licensee CAP documents including CRs and vendor audits associated with meteorological monitoring activities and unrestricted release of materials from the RCA were reviewed and discussed with responsible licensee representatives. In addition, licensee quality assurance vendor audits and vendor self-assessments associated with REMP activities were reviewed and discussed with cognizant licensee and vendor personnel. The inspectors evaluated the licensee's ability to identify, characterize, prioritize, and resolve selected issues in accordance with licensee procedure NMP-GM-002-GL02. Specific documents reviewed and evaluated in detail for these program areas are identified in the Attachment.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification

a. Inspection Scope

The inspectors sampled licensee submittals for the Performance Indicators (PIs) indicated below. To verify the accuracy of the PI data reported during that period, PI definitions and guidance contained in NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Revision 2, were used to verify the basis in reporting for each data element.

Barrier Integrity Cornerstone

- Unit 1 and Unit 2 Reactor Coolant System Activity

The inspectors reviewed raw PI data for the period July 2003 through May 2004 and compared graphical representations from the most recent PI report to the raw data to verify the data was included in the report. The inspectors also examined a sampling of operations logs and procedures to verify the PI data was appropriately captured for inclusion into the PI report, and the individual PI was calculated correctly.

Mitigating Systems Cornerstone

- Unit 1 and Unit 2 Emergency AC Power System Unavailability
- Unit 1 and Unit 2 High Pressure Injection System Unavailability

The inspectors reviewed raw PI data for the period July 2003 through May 2004 and compared graphical representations from the most recent PI report to the raw data to verify it was correctly included in the report. The inspectors also examined a sample of operations logs and procedures to verify the PI data was appropriately captured for inclusion into the PI report and calculated correctly.

Occupational Radiation Safety Cornerstone

- Occupational Exposure Control Effectiveness

The inspectors reviewed CR records for HRAs, LHRAs, VHRAs, and unplanned exposure occurrences for the period of March 2003 through March 2004 to ensure that nonconformances were properly classified as PIs. The inspectors also reviewed procedural guidance for reporting PI information and Access Control Alarm Reports for the period October 2003 through April 2004. Reviewed documents are listed in the Attachment.

Public Radiation Safety Cornerstone

- Radiological Environmental Technical Specifications (RETS)/ODCM Radiological Effluent Occurrences

The inspectors reviewed the Radiological Control Effluent Release Occurrences PI results for the Public Radiation Safety Cornerstone for the period March 2003 through March 2004. For the assessment period, the inspectors reviewed selected radiological liquid and gaseous effluent release data, OOS process radiation monitors and sampling data, any abnormal release results, procedural guidance for reporting PI information, and two CRs documented in the Attachment. In addition, the inspectors reviewed monthly PI reports from January 2003 through December 2003.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems

1. Daily Condition Report Review

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

2. Semi-Annual Trend Review

a. Inspection Scope

As required by Inspection Procedure 71152, Identification and Resolution of Problems, the inspectors performed a review of the licensee's CAP and associated documents to identify trends which could indicate the existence of a more significant safety issue. The inspector's review was focused on repetitive equipment issues, but also considered the results of daily inspector CR item screening discussed in section 4OA2.1, licensee trending efforts, and licensee human performance results. The inspector's review nominally considered the six month period of January 2004 through June 2004, although some examples extended beyond those dates when the scope of the trend warranted. Inspectors also reviewed several CRs associated with operability determinations which occurred during the period. The inspectors compared and contrasted their results with the results contained in the licensees 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 document NMP-GM-002, Corrective Action Program, and 10 CFR 50, Appendix B.

b. Assessment and Observations

No findings of significance were identified. The inspectors compared the licensee Quarterly Trend Report with the results of the inspectors' daily screening and did not identify any discrepancies or potential trends in the data the licensee had failed to identify. However, one trend issue was noted by the inspectors which was beyond the scope of the licensee's trend review process.

The inspectors reviewed numerous CRs in order to assess licensee rigor in determining and documenting equipment operability. Licensee procedure 00AC-REG-006-0, Operability Determinations, provides guidance for determining and documenting the operability of safety-related systems, structures and components when a degraded or non-conforming condition was found or suspected to exist. This procedure was used to evaluate CRs to determine if the condition requires a formal operability evaluation or if operability can be determined based on the CR details. In several of the CRs reviewed which did not require a formal operability determination, the bases and other pertinent details were lacking which would have allowed the reader to assess and verify operability. Some of the more significant examples were:

- CR 2004103791 described the suction pressure for HPCI as low, but RCIC suction pressure remained normal. No determination was made in the CR as to the operability of the HPCI system and the relation to the RCIC system.
- CR 2004105529 described a HPCI channel reading 210# lower than expected. Although another indication showed the expected pressure, there was no evaluation for operability in relation to the lower indication.
- CR 2004105919 described a condition of high temperatures and smoke in the 1A EDG room after a 24 hour EDG run. No indication of when the EDG would be inoperable from temperatures or if emergency ventilation would be required was given.
- CR 2004106297 described a PSW strainer high differential pressure of 5#, even though the upper limit was 3#. No operability evaluation was done.
- CR 2004103417 described problems with the RCIC barometric condenser. Even though the CR called into question the operability of the RCIC pump, no operability evaluation was done.
- CR 2004104130 described a failure of the primary containment high pressure alarm, but no further evaluation was given on the CR.

Additionally, licensee procedure 00AC-REG-006-0 states that leaks and corrosion issues require further evaluation, such that the operability of the SSC can be determined up to a certain leak rate or extent of corrosion. The following CR's described such conditions but did not address the further evaluation performed:

- CR 2004105686 described the oil level in several EDG components were slightly below the scribe marks on the sight glasses. Instead of evaluating when the EDG

would become inoperable on lowering oil level, the licensee added oil to above the sight glass scribe marks and stated the EDGs were operable without further justification.
- CR 2004105908 describes a reduction in the internal diameters of a pipe on the Plant Service Water system. Although the CR states the pipe is to be replaced, it does not give an indication as to when the pipe may be inoperable from further corrosion.

The licensee has entered this issue of operability determinations into the corrective action program for review and disposition. The inspectors identified no inoperable equipment during the review through independent verification of operability.

4OA5 Other

1. (Discussed) NRC Temporary Instruction (TI) 2515/154, Spent Fuel Material Control and Accounting

a. Inspection Scope

The inspectors completed Phase I and Phase II of TI 2515/154, Spent Fuel Material Control and Accounting at Nuclear Power Plants.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

The inspectors conducted independent gamma and neutron surveys of the ISFSI facility and compared the results to previous quarterly surveys. The inspectors also observed and evaluated implementation of radiological controls, including RWPs and postings, and discussed the controls with a HPT and HP supervisory staff. Radiological controls for loading Hi-Star 100 ISFSI casks were also reviewed and discussed. Radiological control activities for ISFSI areas were evaluated against 10 CFR Part 20, 10 CFR Part 72, and applicable licensee procedures. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified.

3. (Discussed) NRC TI 2515/156, Offsite Power System Operational Readiness

a. Inspection Scope

The inspectors collected data from licensee maintenance records, event reports, corrective action documents and procedures and through interviews of station engineering, maintenance, and operations staff, as required by TI 2515/156. The data was gathered to assess the operational readiness of the offsite power systems in accordance with NRC requirements such as Appendix A to 10 CFR Part 50, General Design Criterion 17; Criterion XVI of Appendix B to10 CFR Part 50, Plant Technical Specifications for offsite power systems; 10 CFR 50.63; 10 CFR 50.65 (a)(4), and licensee procedures. Documents reviewed are listed in the Attachment.

b. Findings

No findings of significance were identified. Based on the inspection, no immediate operability issues were identified. In accordance with TI 2515/156 reporting requirements, the inspectors provided the required data to the headquarters staff for further analysis. This TI will remain open pending completion of that analysis.

4OA6 Meetings, Including Exit

On July 8, 2004, the inspectors presented the inspection results to Mr. George Frederick and the other members of his staff who acknowledged the observations. The inspectors confirmed proprietary information was not provided or examined during the inspection.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel

J. Anderson, Health Physics and Chemistry Manager
J. Betsill, Engineering Support Manager
R. Dedrickson, Assistant General Manager - Plant Support
G. Frederick, General Manager - Nuclear Plant
M. Googe, Maintenance Manager
J. Hammonds, Operations Manager
J. Lewis, Training and Emergency Preparedness Manager
D. Madison, Assistant General Manager - Plant Operations
J. Reddick, HP Superintendent
R. Reddick, Site Emergency Preparedness Coordinator
S. Sellers, Chemistry Superintendent
R. Varnadore, Outage and Planning Manager
S. Tipps, Nuclear Safety and Compliance Manager

NRC personnel

B. Bonser, Chief, Reactor Projects Branch 2,

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Discussed

2515/154	TI	Spent Fuel Material Control and Accounting
2515/156	TI	Offsite Power System Operational Readiness

Attachment

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather
CRs: 2004105922, 2004104410, 2004104359, 2004200005, 2004200033, 2003113560, 1999005419

Section 1R04: Equipment Alignment
Drawings: H-11600, D-11001, H-11609, H-16042, H-17121, H-11631, H-21074
34AB-R43-001-1, Diesel Generator Recovery
34SO-R22-001-2, 4160 VAC System
34SO-R43-001-1, Diesel Generator Standby AC System
34SV-R43-007-1, Diesel Generator 1A, 1B and 1C Simultaneous Start
34SV-SUV-013-0, Weekly Breaker Alignment Checks
LT-SI-03701, MCREC Lesson Plans
SI-LP-02801-03, System Information Fairbanks Morse Vendor Manual
SI-LP-02702-01 4160VAC Electrical Distribution System
MWO 1036473801

Section 1R05: Fire Protection
MGR-0009, Maintenance Rule (10 CFR 50.65) Implementation and Compliance
CRs: 2002005390, 2002201334, 2003111782, 2003111788, 2003111789, 2003111790

Section 1R12: Maintenance Effectiveness
CRs: 2004104390, 2004105344, 2004105346, 2001011085, 2002200236, 2002200413, 2001203378, 2003000356, 2003200637, 2003201433, 2003201435, 200301436, 2003200636, 2003201434, 2003200193, 2004101842, 2004103250, 2004104390, 2004104389, 2003113225, 2004101709, 2004101741, 2003205232, 2003205233, 2003900442, 2004200270, 2004105350, 2004105404, 2004105406, 2004105407, 2004105408, 2004105274, 2004105273, 2004105757
Unit 1 System Health Summary Matrix
Unit 2 System Health Summary Matrix
System Health Report Reactor Core Isolation Cooling System
Reliance Electric Limited Drawing SR-8287

Section 1R14: Personnel Performance During Non-routine Plant Evolutions
CRs: 2004104833, 2004104838, 2004104915
34SP-09-18-03-BG-2-1, Unit 1 Feedwater Level Control Dynamic Test for Appendix K Uprate
34GO-OPS-005, Power Changes
Drawing H-13379, H-43108, H-44767

Section 1R15: Operability Evaluations
00AC-REG-006-0, Operability Determinations
CRs: 2004100981, 2004103482, 2004101183, 2004106563, 2004104643
Drawings: S-17452

Section 1R19: Post Maintenance Testing

CRs: 2004106563, 2004106626, 2004105614, 2004105991, 2004105614,
51GM-MNT-002-0S, Maintenance Housekeeping and Foreign Material Control
52IT-MEL-003-0, High Potential and Megger Testing of Electrical Equipment and Cables
52PM-Z41-002-1, Control Room Air Conditioning System Maintenance
42IT-TET-012-1S, Plant Service Water and RHR Service Water Piping Inspection Procedure
DI-MNT-54-0599, Evolution Pre- and Post-job Brief Guidelines
MWOs: 10301995, 1030183301, 1041445701, 2039001208, 2041191001
Drawings: H-26023, HB-26023

Section 2OS1: Access Control To Radiologically Significant Areas

Procedures, Guidance Documents, and Manuals

62RP-RAD-008-0, Radiation and Contamination Surveys, Rev. 10.3
62RP-RAD-009-0, Air Sampling and Concentration Determination, Rev. 5.1
62RP-RAD-016-0, Very High and High Radiation Area Access Control, Rev. 19.0
62RP-RAD-022-0, Diving Procedure, Rev. 10.1
62RP-RAD-032-0, Shallow Dose Assessments, Rev. 6.0
60AC-HPX-004-0, Radiation and Contamination Control, Rev. 17.0
NMP-GM-002-GL02, Corrective Action Program Details and Expectations Guideline, Ver. 2.0

Records and Data

RWP No. 04-0255, MMS Skid Maintenance, Rev. 0
RWP No. 04-1608, 1E11-FO60 Valve Repairs, Rev. 1
Radiological Survey No. 8244, U2 MMS, 04/02/04
Radiological Survey No. 6205, U1 Drywell 127' elevation, 02/15/04
Personnel Contamination Event Log, 1/26/04 - 03/30/04
Personnel Contamination Event Report, CR No. 2004102842
Whole Body Count Records, CR No. 2004102983

Audits and CAP Documents

Audit No. 03-HPC-1, Audit of Health Physics & Chemistry, 10/13/04
CRs: 2003003983, 2004102842, 2004102983

Section 2OS3: Radiation Monitoring Instrumentation and Protective Equipment

Procedures and Reference Documents

60AC-HPX-017-0, Radiation Protection instrumentation Program, Ver. 2.2
57CP-CAL-005-1, ARM System Calibration, Ver. 11.2
57CP-CAL-005-2, ARM System Calibration, Ver. 9.0
62HI-OCB-073-0S, Personnel Contamination Monitor, Model 1B, Rev. 3
62HI-OCB-103-0, Eberline Portal Monitor, Model PM-7, Ver. 1.0
62HI-OCB-028-0, Use and Calibration of Whole Body Counters, Ver. 13.1
60AC-HPX-004-0, Radiation and Contamination Control, Ver. 17.0
60AC-HPX-006-0S, Respiratory Radiological Protection Program, Ver. 10 ed. 1
62RP-RAD-003-0, Use and Care of Respirators, Ver. 9.4
73EP-INS-001-0, Emergency Equipment Inventory, Ver. 2.0

ARM Calibration Records for January 2002 - April 2004
2D11-K621A, Drywell High-Range Radiation Monitor
2D21-K601M, Spent Fuel Pool Monitor
2D21-K611H, Radwaste Building Monitor
2D21-K611L, Refuel Floor Monitor

Service Building Whole Body Counter Calibration Records
62HI-OCB-028-0, Annual Efficiency Calibration, 03/14/02
62HI-OCB-028-0, Efficiency and Energy Calibration, 01/30/03
62HI-OCB-028-0, Efficiency Calibration, 03/29/04

Miscellaneous Instrumentation: Current Calibration Record (6-month calibration)
PCM-1B, SN 1498, 01/23/04
PM-7, SN 381, 03/06/04
RO-2A, SN 4097, 02/03/04
Teletector, SN 5453, 02/06/04

Other Records/Data
Maintenance of Emergency-use SCBA: units nos. 8 and 66 - regulator maintenance 03/25/04, hydrostatic test 10/2002; unit no. 28 - regulator maintenance 10/15/03, hydrostatic test 08/01
Certifications of compliance with Grade D air standard for four air samples taken on 01/15/04

CAP Documents and Special Reports
CRs: 2003002605, 2003007326, 2003111150, 2003111509, 2003113134, 2003110441, 2003111892, 2003007294, 2002006279, 2003001964, 2004104806
Audit No. 03-HPC-1, Audit of Health Physics and Chemistry, 10/13/03
Plant Hatch 2003 Annual Respiratory Protection Review

Section 2PS1: Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems

Procedures and Guidance Documents
64CI-OCB-001-0, Main Stack Radiation Monitoring, Ver. 3.2
64CI-OCB-018-0, Canberra Microvax Gamma Spectrophotometer Calibration
64CH-RPT-006-0, Liquid Effluent Reports, Rev. 4.11
64CH-RPT-007-0, Gaseous Effluent Reports, Rev. 2.6
64CH-SAM-024-0, Liquid Radwaste Sampling and Analyses, Ver. 10.0
64CH-QCX-001-0, Quality Control for Laboratory Analysis, Ver. 7.1
64CH-RCL-006-0S, Gamma Isotopic and Reports, Rev. 2, Ed. 3
NMP-GM-002-GL02, Corrective Action Program Details and Expectations Guideline, Ver. 2.0

Records
Unit 1 Liquid Radwaste Monitor Calibrations, 08/11/00, 11/06/01, 05/06/03
Unit 1 Liquid Radwaste Monitor Flowmeter Calibrations, 09/11/03, 12/19/03, 01/07/04
Liquid Effluent Release Permit Nos. 40095.006.008.L (04/03/04) and 40098.012.017.L (04/12/04)
Surveillance Tests of Standby Gas Treatment System trains 1A (07/11/03), 1B (02/04/03), 2A (05/27/02), 2B (08/27/03)
Main Stack Radiation Monitor Calibrations, 02/19/01, 05/30/02, 12/02/03

Unit 1 Reactor Building Vent Radiation Monitor Calibrations, 07/03/00, 10/09/01, 07/17/03
Unit 1 Reactor Building Vent Radiation Monitor Flowmeter Calibrations, 02/29/00, 05/24/01, 02/14/03
Gaseous Effluent Release Permit Nos. 40057.018.015.G (04/07/04) and 40059.016.015.G (04/07/04)
Germanium Detector #1 Efficiency Calibrations, 07/01/00, 04/01/02, 01/01/04
Germanium Detector #1 Daily Source Check Trends, 11/01/03 - 04/13/04
Radiochemistry Cross-Check Program Results, 1st Quarter 2002, 3rd Quarter 2002, 1st Quarter 2003, 3rd Quarter 2003
Out-of-Service Effluent Monitor Logs, March 2003 - March 2004

Audits and CAP Documents
Audit of HP/Chem No. 03-HPC-1, 10/13/03
CR 2003002409, 2003005208, 2003110864, 2004104630

Section 2PS3: Radiological Environmental Monitoring Program (REMP) and Radioactive Material Control Program

Procedures, Manuals, and Guidance Documents
Edwin I. Hatch Nuclear Plant Annual Radiological Environmental Operating Report for 2002
GPC EL ENV-620, Gross Beta Activity in Filters, Rev. 6, 06/20/02
GPC EL ENV-931, Collection and Handling of Fish Samples for Radiological Analysis, Rev. 12, 08/14/98
GPC EL ENV-935, Land Use Census, Rev. 10, 08/14/98
GPC EL ENV-936, Collection and Handling of Milk Samples for Radiological Analysis, Rev. 8, 08/14/98
GPC EL ENV-939, Instructions for Monitoring of Gamma Radiation Exposure in the Vicinity of Edwin I. Hatch Nuclear Plant by Thermoluminescent Dosimeters, Rev. 10, 08/14/98
GPC EL ENV-940, Radiological Monitoring - Airborne Particulates and Gaseous Iodine, Rev. 9, 03/17/97
GPC EL ENV-941, Air Flow Calibration of Air Sampling Equipment Used to Collect Airborne Particulates and Gaseous Iodine, Rev. 5, 03/17/97
Meteorological Station, Document Number (No.) 64CH-ENV-001-0, Version No. 8.3, 12/11/03
NE Technology Small Article Monitor (SAM)-9 Bag Waste Monitor and SAM-9 and SAM-11 SAM Operation and Calibration, Document No. 62HI-OCB-090-0S, Rev. 4, 02/18/99
Offsite Dose Calculation Manual for Edwin I. Hatch Nuclear Plant, Revision (Rev.) 14, June 2003
Release Surveys, Document No. 62RP-RAD-017-0, Version No. 10.3, 05/09/03

Records and Annual Reports
Certificate of Calibration for Model No. C-812, Serial No. 1321
Climatronics Instruments, Document No. 57IT-Y33-001-0, Version No. 4.5, Ambient Temperature Channel Calibration, MPL Nos. 1Y33-N013, 1Y33-N024, 1Y33-R031, 1Y33-N602, 1Y33-R606, and 1Y33-N042, 04/30/03, 09/24/03 and 03/23/04
Climatronics Instruments, Document No. 57IT-Y33-001-0, Version No. 4.5, Wind Direction Channel Calibration, MPL Nos. 1Y33-N004, 1Y33-N005, 1Y33-N006, 1Y33-N022, 1Y33-N023, 1Y33-N064 1Y33-R021, 1Y33-R025, 1Y33-R029, 1Y33-N601, 1Y33-R601, 1Y33-R603, 1Y33-R602, and 1Y33-N041, 04/11/03, 04/29/03, 04/30/03, 09/23/03 and 03/23/04

Climatronics Instruments, Document No. 57IT-Y33-001-0, Version No. 4.5, Wind Direction Transmitter Calibration, MPL Nos. 1Y33-N006 and 1Y33-N064, 03/05/03
Climatronics Instruments, Document No. 57IT-Y33-001-0, Version No. 4.5, Wind Speed Channel Calibration, MPL Nos. 1Y33-N001, 1Y33-N022, 1Y33-R020, 1Y33-N601, 1Y33-R603, and 1Y33-N041, 09/30/03
Edwin I. Hatch Nuclear Plant Annual Radiological Environmental Operating Report for 2002
High Voltage Scan for SAM 9, Document No. 62HI-OCB-090-0S, MPL No. D21-N 1178, 02/28/04
High Voltage Scan for SAM 9, Document No. 62HI-OCB-090-0S, MPL No. D21-N 1223, 03/10/04
HNP Air Flow Calibration Field Sheets, for Location Nos. 103, 107, 112, 116, 304, and 309, 10/14/02, 04/14/03, and 10/27/03
Plant Hatch Annual Meteorological Reports for 2002 and 2003, Reports C-1032465-002, Rev. 0, and C-1032465-003, Rev. 0, March 2003 and February 2004
SAM 9 Calibration Setup, Document No. 62HI-OCB-090-0S, MPL No. D21-N 1178, 02/28/04
SAM 9 Calibration Setup, Document No. 62HI-OCB-090-0S, MPL No. D21-N 1223, 03/10/04

Audits and CAP Documents
Plant E. I. Hatch, Audit of HP/Chem, Audit No. 03-HPC-1, October 13, 2003
SNOC, SAR of GPCEL, Smyrna, Georgia, May 20-24, 2002, for Environmental Monitoring (Radiological, Non-Radiological) Chemical and Radiochemical Analysis/Testing Services Thermoluminescence Dosimetry, Audit No. QSF 2002-32, SNC Quality Class SR, QSL #745
SNOC, SAR of GPCEL, Smyrna, Georgia, May 12-15, 2003, for Environmental Monitoring (Radiological, Non-Radiological) Chemical and Radiochemical Analysis/Testing Services Thermoluminescence Dosimetry, Audit No. CQA 03-81, SNC Quality Class SR, QSL #745
CRs: 2003110961, 2003112201, 2003003977, 2003000135, 2003003256, 2003002371, 2003110985

Section 4OA1: Performance Indicator Verification

Procedures
NMP-QA-104, Version 1.0, Audit Planning and Scheduling, 12/19/03
Preparation and Reporting of NRC PI Data, Document No. 00AC-REG-005-0, Version No. 3.1, 07/15/02
Hatch Project, Safety Audit and Engineering Review Procedure for SAER Audits, SAER-07, Rev. 12, 03/25/03

Records and Data
Plant Hatch Access Control Alarms Report from 10/03 through 04/04
Out-of-Service Effluent Monitor Logs, March 2003 - March 2004

CAP Documents
CRs: 2003111356, 2003000127, 2003001551, 2003008041, 2003003468, 2003003983, 2004101695

Section 4OA5: Other Activities

ISFSI Documents Reviewed
62RP-RAD-047-0, Independent Spent Fuel Storage Installation and Radiological Controls, Rev.1.2
52SV-F18-002-0, Hi-Star 100 Fuel Loading, Rev. 4.0
Radiological Survey No. 5780, ISFSI Area, 02/04/04
RWP No. 04-0105, ISFSI Cask Loading and Transport, Rev. 0
CR No. 2003112729, Wrong canister loaded into ISFSI cask, 12/02/03

TI 2515/156
Southern Company NERC Control Area Readiness Audit, March 23-25, 2004
A-45587 Power Quality Guide for E.I. Hatch Nuclear Plant
Intracompany Correspondence from T.L. Elton to S.B. Tipps, dated February 5, 2001, Response to NRC 2000-006 (OFFSITE POWER VOLTAGE INADEQUACIES)
Plant Hatch 2000 Steady-State FSAR Study
Georgia Integrated Transmission System Substation Diagram, Hatch 500/230KV