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

July 26, 2002

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

SUBJECT: EDWIN I. HATCH NUCLEAR POWER PLANT - NRC INTEGRATED INSPECTION REPORT 50-321/02-03, 50-366/02-03

Dear Mr. Sumner:

On June 29, 2002, the Nuclear Regulatory Commission (NRC) completed an inspection at your Hatch Units 1 and 2. The enclosed report documents the inspection findings which were discussed on July 9, 2002 with Mr. Pete Wells 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, the inspectors identified one finding of very low safety significance (Green). This finding was also determined to involve a violation of NRC requirements. However, because of the very low safety significance and because it has been entered into your corrective action program, the NRC is treating this violation as a Non-Cited Violation (NCV), in accordance with Section VI.A.1 of the NRC Enforcement Policy. If you deny any NCV in this report, you should provide a response with the basis of your denial, within 30 days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region II; Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Edwin I. Hatch Nuclear Plant.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be available 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/

Stephen J. Cahill, Chief
Reactor Projects Branch 2
Division of Reactor Projects

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

Enclosure: Integrated Inspection Report
50-321/02-03, 50-366/02-03
w/Attachment

cc w/encl: (See page 3)

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U. S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.:	50-321, 50-366
License Nos.:	DPR-57, NPF-5
Report Nos.:	50-321/02-03, 50-366/02-03
Licensee:	Southern Nuclear Operating Company, Inc. (SNC)
Facility:	E. I. Hatch Nuclear Power Plant, Units 1 & 2
Location:	P.O. Box 2010 Baxley, Georgia 31515
Dates:	March 31 - June 29, 2002
Inspectors:	J. Munday, Senior Resident Inspector N. Garrett, Resident Inspector C. Rapp, Senior Project Engineer E. Testa, Sr. Health Physics Specialist (Section 2OS1) D. Forbes, Health Physics Specialist (Sections 2PS3, 4OA1) R. Hamilton, Health Physics Specialist (Sections 2OS1, 2OS3, 2PS1, and 2PS3)
Approved By:	Stephen J. Cahill, Chief Reactor Projects Branch 2 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000321-02-03, IR 05000366-02-03 on 03/31/2002 - 06/29/2002, Southern Nuclear Operating Company, Inc., Edwin I. Hatch Nuclear Power Plant, Units 1 & 2, radiation monitoring instrumentation and protective equipment

The inspection was conducted by resident inspectors, a Senior Project Engineer, and three regional Health Physics Specialists. One Green finding, which was a non-cited violation, was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609 "Significance Determination Process" (SDP). Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at *http://www.nrc.gov/nrr/oversight/index.html*.

A. Inspector Identified Findings

Cornerstone: Occupational Radiation Safety

Green. A non-cited violation of 10 CFR 20.1703(c)(4)(ii) was identified for the failure of the licensee to implement a self-contained breathing apparatus training program that required all designated SCBA users to demonstrate proficiency in the change out of SCBA air bottles.

This finding was of very low safety significance because it involved a failure to meet a regulatory requirement but did not involve the failure to implement or meet an emergency preparedness planning standard and because no actual event required emergency response workers to change self contained breathing apparatus air bottles (Section 2OS3).

B. Licensee Identified Violations

A violation of very low significance identified by the licensee has been reviewed by an inspector. Corrective actions taken or planned by the licensee appear reasonable. The violation is listed in section 4OA7 of this report.

Report Details

Summary of Plant Status

Unit 1 began this inspection period in a refueling outage. The unit was restarted on April 19, and reached 20% Rated Thermal Power (RTP) when a safety relief valve (S/RV) failed. The unit was shut down and the S/RV repaired. The unit was restarted on April 22 and reached 100% RTP on April 26. On June 14, the 'B' Reactor Recirculation Pump (RRP) ran back resulting in a brief power reduction to 87% RTP. The unit was returned to 100% RTP the same day where it operated for the remainder of the inspection period with the exception of planned maintenance and testing.

Unit 2 operated at or near 100% RTP during this inspection period except during planned maintenance and testing.

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

1R01 Adverse Weather Protection

a. Inspection Scope

The inspectors performed a partial walkdown of systems listed in licensee procedure DI-OPS-56-0293N, Hot Weather Operations, to verify licensee preparations for hot weather. The inspectors also reviewed the Final Safety Analysis Report (FSAR) to verify equipment operability limits during hot weather were met. In addition, the inspectors reviewed licensee procedure HNEL-WP-59, Drought Contingency Plans, to verify actions required to maintain the ultimate heat sink during seasonal drought conditions were implemented.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment

.1 Partial Walkdowns

a. Inspection Scope

The inspectors performed partial walkdowns of the following three systems to verify the availability of redundant or diverse systems and components and that defense-in-depth was maintained during periods when safety equipment was inoperable. The inspectors compared system configuration to the associated licensee procedures and system and component checklists to verify systems and components were correctly aligned. Additionally, inspectors reviewed selected Condition Reports (CRs) to verify that equipment alignment issues were being identified and adequately resolved.

- Unit 2 'A' Core Spray (CS)
- Unit 1 High Pressure Coolant Injection (HPCI)

- Unit 1 and Unit 2 Emergency Diesel Generators (EDG)

.2 Full Walkdown

a. Inspection Scope

The inspectors conducted a detailed review of the Unit 2 Service and Instrument Air System. The inspectors compared actual system alignment to the required alignment in the licensee procedures and other documents listed in the Attachment to verify proper system alignment. The review also included verification that electrical power was available, system components were labeled, and hangers and supports were correctly installed and functional. The inspectors reviewed CR's to verify that system deficiencies were being identified and corrected. The inspectors also reviewed outstanding maintenance work orders (MWO's) and the system health report, the maintenance rule report, and the operator workarounds list to assess overall system condition to verify that identified deficiencies would not affect system function.

b. Findings

No findings of significance were identified.

1R05 Fire Protection

a. Inspection Scope

The inspectors reviewed licensee procedure 40AC-ENG-008-OS, Fire Protection Program, and conducted area walkdowns of the following eight areas to verify the condition of fire protection equipment and the licensee's control of transient combustibles. The inspectors also reviewed the Site Fire Hazards Analysis and applicable Pre-fire Plan drawings listed in the Attachment to verify that the necessary fire fighting equipment, such as fire extinguishers, hose stations, ladders, and communications equipment, was in place.

- Unit 1 Station Battery Room 1A, Fire Area 1004
- Unit 1 Station Battery Room 1B, Fire Area 1005
- Unit 1 600 Volt Switchgear Rooms 1C and 1D, Fire Areas 1016 and 1017
- Unit 1 DC Switchgear Rooms 1A and 1B, Fire Areas 1018 and 1020
- Unit 1 Annunciator Room, Fire Area 1015
- Unit 2 Reactor Building Working Floor 130 ft, Fire Areas 2203F and 2205F
- Unit 2 Station Battery Room 2A, Fire Area 2004
- Unit 2 Station Battery Room 2B, Fire Area 2005

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance

a. Inspection Scope

As documented in CR 2002001823, the licensee had identified a reduction in standby plant service water (PSW) pump flow which supplied cooling water to the 1B EDG Water Jacket, Oil and Air Cooler heat exchanger. The inspector observed licensee inspection activities for this heat exchanger to verify implementation of licensee procedure 52PM-R43-015-0S, Diesel Generator Turbocharger and Heat Exchanger Inspection. The inspector also reviewed the ultrasonic inspection results listed in the Attachment to verify the licensee had properly identified any tubes that met the tube plugging acceptance criteria. Additional documents reviewed are also listed in the Attachment.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification

a. Inspection Scope

The inspectors observed licensed operator performance during two simulator exercises; LT-SG-50472-00, Overt Threat/Loss of Ultimate Heat Sink and LT-SG-50442-06, Loss of Vacuum/Electrical Fault/Drywell Spray. 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, and supervisory oversight. The inspectors also reviewed licensee procedure 73-EP-EIP-001-0S, Emergency Classification and Initial Actions, to verify the event action level was correctly identified and reported. The inspectors attended the post exercise critiques and discussed operator performance with the instructors to verify the licensee identified issues were comparable to issues identified by the inspectors.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation

a. Inspection Scope

The inspectors reviewed the following six CR's associated with structures, systems, and components (SSC's) to verify implementation of licensee procedure 40AC-ENG-020-0S, Maintenance Rule (10 CFR 50.65) Implementation and Compliance, and compliance with 10 CFR 50.65 including characterization of failures and the appropriateness of the associated (a)(1) or (a)(2) classification. The inspectors also reviewed these CR's to verify that equipment failures were being identified and properly assessed and to verify

that corrective actions were established to return the equipment to a satisfactory condition.

- High Vacuum Trip of 1B EDG, CR's 2001010670 and 2002001645
- Failure of Unit 1 Reactor Core Isolation Cooling (RCIC) Turbine to Start, CR 2001011085
- Trip of 2P64-B006B Unit 2 Drywell Chiller, CR 2002000414
- 1T48-F069, Nitrogen Storage Tank Safety Relief Valve Inoperable due to excessive ice formation, CR 2001010988
- Failure to Start of 1T41-C004A/B, Reactor Building Ventilation Fans, CR 2001011047
- Failure of Unit 2 Main Steam Isolation Valve (MSIV), 2B21-F028B, CR 2001011425

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 licensee Plan of the Day documents to verify that risk assessments were performed prior to components being removed from service. In addition, when emergent work was identified, the inspectors held discussions with licensee personnel and walked down plant systems to verify actions were taken to minimize the probability of an initiating event and maintain the functional capability of mitigating systems.

- Work Week May 11 - 17, 2002
- Work Week May 18 - 24, 2002
- Failure of Unit 1 Reactor Building to Torus Vacuum Breaker
- Work Week June 2 - 8, 2002
- Work Week June 8 - 14, 2002

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Non-Routine Plant Evolutions

.1 Failure of Multiple Unit 2 Main Control Room Annunciator Panels

a. Inspection Scope

On April 2, the inspectors observed licensed control room operator performance, observed control room indications, and reviewed operator logs to verify the operators' implementation of licensee procedures 34AB-R42-001-0S, Location of Grounds, and 34AB-H11-001-2S, Loss of Power to Annunciators in Main Control Room. The inspectors reviewed licensee procedure 73EP-EIP-001-0S to verify the licensee had

correctly classified the event as an Alert Emergency. Additional details of the event are included in Section 4OA3.

b. Findings

No findings of significance were identified.

.2 Unit 1 Shutdown Due to Greater Than Technical Specification Leakage in the Drywell

a. Inspection Scope

On April 19, the licensee shut down Unit 1 from 20% RTP when unidentified drywell leakage exceeded the TS 3.4.4 A limit. The inspectors reviewed operator logs, plant computer data, and strip chart data to verify implementation of licensee procedure 34AB-T23-002-1S, Small Pipe Break Inside Primary Containment. Additionally, portions of the shutdown were observed to verify implementation of 34GO-OPS-013-1S, Normal Plant Shutdown. The licensee determined that a leaking SRV was the cause of the drywell leakage. The licensee documented the event in CR 2002004405.

b. Findings

No findings of significance were identified.

.3 Unit 1 'B' RRP Runback

a. Inspection Scope

On June 14, the Unit 1 'B' RRP ran back to approximately 61% speed when power was removed from the pump controller in the Main Control Room (MCR). The loss of power occurred when a circuit link was inadvertently opened during maintenance. When it was recognized that a RRP runback had started, the link was immediately shut restoring power to the controller. The inspectors observed licensed control room operator performance and control room indications and reviewed operator logs to verify the operators' implementation of licensee procedure 34AB-B31-001-1, Reactor Recirculation Pump(s) Trip, or Recirc Loops Flow Mismatch. The licensee documented the event in CR 2002006318.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors reviewed the following six operability evaluations to verify the licensee had adequately assessed TS operability. The inspectors also reviewed the UFSAR to verify the system or component remained available to perform it's intended function. In addition, the inspectors reviewed implemented compensatory measures to verify the

compensatory measures worked as stated and the measures were adequately controlled.

- Unit 1 Control Rod 10-19 unlatching: CR 2002003919, Operating Order OO-01-0402S
- Unit 1 - Vacuum Breaker 1B31-F037J parts in Torus: CR 2002004438
- Control Room Ventilation System Operation With Cable Spreading Room Fans in Service: Procedure Change Review Associated with Revision of 34SO-Z41-001-1, Control Room Ventilation System to Rev. 18.0
- Operability Evaluation for Cooling Water Capability for Swing Diesel Generator 1B, LR-REG-003-00502
- Operability of Unit 1 Control Rod Drive Room Cooler with fouled cooler tubes, CR 2002000806
- Operability Evaluation for S/RV Tailpipe Vacuum Breaker 1B21-F037J, LR-REG-002-0602

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing

a. Inspection Scope

The inspectors either observed personnel performance or reviewed the test results for the following six maintenance testing activities to verify procedural requirements were met. The inspectors also reviewed MWO's to verify the scope of testing demonstrated that both the work performed was correctly completed and the affected equipment was operable. The inspectors reviewed equipment status and alignment to verify the system or component were properly realigned to perform the required safety function.

- MWO 10103673, Rebuild Valve and Actuator for 1T48F334B
- MWO 10103675, Rebuild Valve and Actuator for 1T48F335B
- MWO 10201501, Repack Valve 1E41-F002
- MWO 10201493, Control Rod Drive 42-19 leak repair
- MWO 10103530, Disassemble and Inspect Check Valve, 1E41-F046
- MWO 10200938, Inspect 1 B EDG Heat Exchangers

b. Findings

No findings of significance were identified.

1R20 Refueling and Outage Activities

a. Inspection Scope

The inspectors reviewed licensee records and observed maintenance and testing for the following activities to verify the licensee's use of risk management during the Unit 2 refueling outage.

Licensee Control of Outage Activities: The inspectors reviewed DI-OPS-57-0393N, Outage Safety Assessment, to verify the licensee was correctly maintaining required equipment in service in accordance with outage risk management. In addition, the inspectors reviewed the contingency plans and the equipment relied on for event mitigation to verify procedures and equipment were consistent with the assumptions in the Independent Shutdown Risk Assessment 2002 Unit 1 Outage, March 19, 2002. The inspectors walked down the following Unit 1 clearances to verify the associated equipment was properly configured to support the function of the clearance.

- 10220063, Division 2 PSW 1P41
- 10220126, RCIC System 1E51
- 1022008, Type 'C' Containment
- 10220125, HPCI System 1E41

Refueling Activities: The inspectors observed core reload and fuel shuffle to verify these activities were performed in accordance with the TS and plant procedures. The inspectors observed several fuel bundle movements to verify all fuel movements were tracked.

Heatup and Startup Activities: The inspectors reviewed TS and licensee procedures to verify that mode change requirements were met. The inspectors performed a walkdown of the drywell to verify that material conditions supported plant operations. The inspectors observed portions of unit startup, plant heatup, and power ascension to verify implementation of licensee procedure 34GO-OPS-00101, Plant Startup. The inspectors reviewed licensee procedure 42CC-ERP-010-0S, Shutdown Margin Calculation, to verify that adequate shutdown margin was properly determined during the approach to criticality.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope

The inspectors reviewed the following eight surveillance test procedures and either observed the test or reviewed test records to verify the test scope demonstrated the affected equipment was operable. The inspectors also reviewed for preconditioning of equipment, procedure adherence, and valve alignment following completion of the surveillance. The inspectors reviewed licensee Procedure AG-MGR-21-0386N, Evolution and Pre-and Post-Job Brief Guidance, and attended selected briefings to verify procedure requirements were met.

- 42SV-TET-001-1S, Primary Containment Type B & C Local Leakage Tests (1T48-F334A and 1T48-F334B)
- 42SV-R43-021-1S, Diesel Generator 1A LOCA/LOSP LSFT
- 34SV-E41-002-1S, HPCI Pump Operability
- 34SV-E51-004-1S, RCIC Pump Operability 150 PSIG Test

- 34SV-E21-001-2S, Core Spray Operability
- 34SV-E51-001-1S, RCIC Valve Operability
- 34SV-E51-002-1S, RCIC Pump Operability

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed temporary modification (TMM) TM 1-02-10, Control Rod Drive 38-27 Temperature Alarm Defeated, to verify the TMM met the criteria defined in licensee procedure 40AC-ENG-018-0S, Temporary Modification Control. In addition, the inspectors reviewed the 10 CFR 50.59 evaluation using the design basis information in the UFSAR to verify the modification did not affect the safety function of the system. The inspectors walked down the modification to verify it was installed in accordance with the TMM requirements.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation

a. Inspection Scope

The inspectors observed licensee activities in the control room simulator, Technical Support Center (TSC), and Emergency Operations Facility (EOF) during an emergency drill conducted on June 5 to verify implementation of 10AC-MGR-006-1S, Hatch Emergency Plan. The inspectors reviewed 73EP-EIP-001-0S, Emergency Classification and Initial Actions, to verify the licensee properly classified the simulated event and developed protective action recommendations. The inspectors also reviewed 73EP-EIP-073-0S, Offsite Emergency Notification, to verify the licensee made the required offsite notifications. The inspectors attended the post-drill exercise critique to verify the licensee's identification for areas of improvement were consistent with the inspectors observations.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY
Cornerstones: Occupational Radiation Safety (OS), Public Radiation Safety (PS)

2OS1 Access Control To Radiologically Significant Areas

a. Inspection Scope

The inspectors reviewed the licensee's procedures listed in the Attachment for posting, surveying, and controlling access to airborne radioactivity areas, radiation areas, high radiation areas, locked high radiation areas and very high radiation areas to determine whether the requirements of 10CFR20 were met. The inspectors directly inspected approximately half of the licensee's locked door locations and reviewed selected licensee weekly inspection documentation to verify the condition and status of the locked doors. The inspectors also observed implementation of key controls for very high and locked radiation area areas.

The inspectors evaluated radiological postings and barricades against the current radiological surveys by the licensee in areas of the reactor, turbine and, plant stack buildings, and the Independent Spent Fuel Storage Installation (ISFSI) to verify the established radiological controls were appropriate for the radiological conditions. In addition, the inspectors independently surveyed various locations in plant areas including the spent fuel pool, ISFSI, and individual spent fuel casks to verify the dose rates recorded on current survey maps. The inspectors evaluated the environmental thermoluminescent dosimeters (TLD) fence line doses at the ISFSI for compliance with 10CFR20, Subpart D.

The inspectors reviewed selected Radiation Work Permits (RWP's), including those listed in the Attachment, used for work in radioloigcally significant areas associated with the 2002 Unit 1 refueling outage and subsequent non-outage work to assess whether access controls and electronic dosimeters (EDs) setpoints were appropriate for the expected work area dose rates. The inspectors also observed a pre-job briefing for RWP 02-150 to evaluate the appropriateness of controls for the expected airborne work area. The inspectors interviewed plant personnel and reviewed selected job sites to assess radiation worker and radiation protection staff training/skill level, adherence to access control procedures and RWP requirements, and understanding of RWP requirements and dosimetry setpoints.

b. Findings

No findings of significance were identified.

2OS3 Radiation Monitoring Instrumentation and Protective Equipment

a. Inspection Scope

The inspectors reviewed licensee instrument calibration procedures and/or setpoints for selected process and area monitors to verify the instruments were capable of performing their intended monitoring function as described in the Offsite Dose Calculation Manual

(ODCM) and UFSAR. Similarly, the inspectors reviewed selected Post Accident Sampling Room surveillances, quality assurance calibration checks, and calibration documentation for both the current and the previous quarters. The inspectors observed continuous air monitors located on the refueling floor and various reactor building elevations to determine operability, the activity levels being measured, and the material condition of the equipment.

The inspectors reviewed the licensee's calibration procedures for the whole body counter, whole body friskers, hand and foot monitors, and article monitors to determine the licensee's ability to detect internally deposited radionuclides and radioactive material exiting the radiologically controlled area. The inspectors reviewed the licensee's procedures for evaluating internally deposited radioactive material to determine the radionuclide library used in assessment software and procedures for assessing unidentified energy peaks.

The inspectors evaluated Self Contained Breathing Apparatus (SCBA) maintenance, use, bottle filling, and training to verify the requirements of 10CFR20.1703 were met. This included physical inspection of SCBA units staged in the Technical Support Center (TSC), interviews with a person responsible for SCBA maintenance, and reviews of documentation and procedures. Training was evaluated by interviewing members of the maintenance, health physics, chemistry, operations, and training organizations.

b. Findings

Green. A non-cited violation of 10CFR20.1703(c)(4)(ii) was identified for the failure to establish and implement written procedures for the SCBA training program that required all designated SCBA users to demonstrate proficiency in the change out of SCBA air bottles.

The inspectors determined, through review of training documentation and interviews with personnel, that not all emergency response workers designated as SCBA users, such as non-fire brigade trained reactor operators, shift technical advisors, and health physics, chemistry and maintenance technicians, had been required to demonstrate SCBA bottle change out. Lesson plan GE-LP-14400-01 did not require instruction of all SCBA qualified personnel on how to replace air supply bottles nor did it require them to demonstrate their ability to do so. While SCBA bottle change-out was sometimes mentioned during the equipment inspection portion of training, the training did not require student demonstration of bottle change-out proficiency. Discussions with licensee training personnel verified that bottle change out was not performed by chemistry and health physics personnel, and was only performed by some students during the 2001 operator requalification training if the students exhausted their air supply during training. In addition, the inspectors interviewed a maintenance worker who was about to use an SCBA while repairing flow indication instrumentation, and his knowledge of SCBA bottle change out was unsatisfactory.

This finding could have a credible impact on safety in that the inability of an individual to effectively change out their bottle could result in additional radiological exposure. This finding was evaluated using the Emergency Preparedness Significance Determination Process and determined to be of very low safety significance because it involved a failure

to meet a regulatory requirement but did not involve the failure to implement or meet an emergency preparedness planning standard and because no actual event required emergency response workers to change self contained breathing apparatus air bottles.

10CFR20.1703(c)(4)(ii) requires the licensee to implement and maintain a respiratory protection program that includes written procedures regarding training of respirator users. The inspectors determined that as of June 14, 2002, the licensee had failed to establish and implement adequate written procedures for training respirator users in that SCBA users were not required to demonstrate proficiency in the change out of SCBA air bottles, as part of their respirator training. This failure is a violation of 10CFR20.1703(c)(4)(ii). This violation is being treated as a non-cited violation, consistent with Section VI.A of the NRC Enforcement Policy, and is identified as NCV 50-321,366/2002-003-01, Inadequate SCBA Training Procedure. This finding been entered into the licensee corrective action program as CR2002006279.

2PS1 Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems

a. Inspection Scope

The inspectors reviewed the system descriptions of the licensee's installed gaseous and liquid effluent monitoring instruments in the UFSAR and selected the following radiation monitoring instrument systems for detailed review: steam jet air ejector, main stack and reactor building vent stack. The calibration procedures, as listed in the Attachment, and setpoint determinations for these instruments were compared to the UFSAR descriptions, and where applicable to the requirements in the ODCM.

The inspectors reviewed and discussed the ODCM to identify if any changes had been made to it that would affect how process radiation monitors were calibrated or set points were determined. The inspectors reviewed and discussed the 2000 and 2001 Annual Radiological Effluent Reports to determine release magnitudes and any abnormal releases which had occurred. In addition, the 10CFR61 analyses, feedwater iron transport, and recirculation piping dose rates were evaluated to corroborate the calculated dose data in the Annual Radiological Effluent Reports.

The inspectors performed direct inspection of accessible portions of the Unit 1 and Unit 2 drywell / torus fission product, reactor building vent, condenser off gas, post- processing, and main stack monitors to evaluate material condition and system alignment. The inspector observed liquid sample compositing and air sample collection by the licensee as well the generation of a new liquid release permit and the subsequent dose summarization and closure of an active permit for consistence with procedural and Offsite Dose Calculation Manual requirements.

The most recent calibrations for all six High Purity Germanium (HPGe) detectors used for effluent sample analysis and the interlaboratory comparison documents for those detectors were also reviewed. The calibrations were evaluated based on energy response, full width half max values and agreement between the reported nuclide activities and the certified activities of the calibration source. The interlaboratory comparison was evaluated based on the relative agreement of results with an external QA vendor's determination for the same sample.

The licensee's effluent monitoring and environmental release programs were evaluated against 10CFR20 Subpart D, 10CFR20, Appendix I, 40CFR190, Regulatory Guide 1.109, and the plant specific OCDM.

b. Findings

No findings of significance were identified

2PS3 Radiological Environmental Monitoring Program (REMP)

.1 REMP Implementation

a. Inspection Scope

The licensee's 2001 Annual Radiological Environmental Operating Report describing Radiological Environmental Monitoring Program (REMP) implementation and assessment of program results was reviewed and discussed with licensee representatives. The inspectors assessed surveillance results, data analysis details, land use census results, inter-laboratory comparison program details, and permitted program deviations. The report details were assessed for required sample types, sampling locations, and monitoring frequencies.

The inspectors evaluated selected sampling stations to verify location and assess material condition of REMP equipment. The inspectors independently assessed the following six air sampling station locations 103, 107, 112, 116, 304, and 309 using global positioning equipment to verify ODCM requirements were met. Collection of air particulate filters and charcoal cartridges and flow rate determinations were also observed at these locations to assess the proficiency and knowledge of workers collecting the samples and the adequacy of collection techniques. The location and placement of off-site seven TLDs were also evaluated.

b. Findings

No findings of significance were identified

.2 Meteorological Monitoring Program

a. Inspection Scope

The inspectors evaluated licensee program activities to determine accuracy and availability of meteorological monitoring instrumentation. Calibration procedures and records for the three most recent calibrations of the air temperature, wind speed, and wind direction monitoring instruments were reviewed. The inspectors assessed material condition and operability during tours and observation of meteorological monitoring equipment at the primary and backup meteorological monitoring towers, and within the control rooms. Accuracy of meteorological data between the primary and backup meteorological towers was assessed. The inspector evaluated and reviewed instrument operability and assessed availability and accuracy of current meteorological data within the control room for both the primary and backup systems.

The meteorological program implementation and activities were reviewed against 10CFR20, TS, UFSAR § 2, ODCM, ANSI -3.11-2000, Determining Meteorological Information, and applicable procedures listed in the Attachment.

b. Findings

No findings of significance were identified.

.3 Unrestricted Release of Materials from the Radiologically Controlled Area (RCA)

a. Inspection Scope

The inspectors reviewed selected program procedures and observed surveys of potentially contaminated materials released from the RCA to assess the licensee's effectiveness in preventing the improper release of radioactive material for unrestricted use. The radionuclides identified within recent waste stream analyses were compared against current calibration source radionuclide types and results to evaluate the appropriateness and accuracy of release survey instrumentation. Licensee data to evaluate survey requirements for hard-to-detect radionuclides were reviewed and discussed. The inspectors reviewed the CR's listed in the Attachment to verify the licensee's ability to identify, characterize, prioritize, and resolve the identified issues.

The licensee practices and implementation of their monitoring activities were evaluated against 10 CFR Part 20, TS, UFSAR, and applicable procedures documented in the attachment to this report.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification

.1 Barrier Integrity Cornerstone

a. Inspection Scope

The inspectors reviewed the licensee's procedures and methods for compiling and reporting PI's to the NRC. The inspectors reviewed raw PI data for RCS Activity collected from July, 2001 to May, 2002 and compared graphical representations from the most recent PI report to the raw data to verify the data was correctly included in the report. The inspectors also examined a sampling of operations logs and procedures to verify the PI data was appropriately captured for inclusion into the PI report, and that the PI was calculated correctly. The inspectors compared their observations with licensee procedure, 00AC-REG-005-0S, Preparation And Reporting Of NRC PI Data, and NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Rev. 2, to verify licensee procedure requirements and industry reporting guidelines were met.

b. Findings

No findings of significance were identified.

.2 Mitigating Systems Cornerstone

a. Inspection Scope

The inspectors reviewed the licensee's procedures and methods for compiling and reporting PIs. The inspectors reviewed raw PI data collected for the PI's below from July, 2001 to May, 2002 and compared graphical representations from the most recent PI report to the raw data to verify the data was correctly included in the report. The inspectors also examined a sampling of operations logs and procedures to verify the PI data was appropriately captured for inclusion into the PI report, and that the PI was calculated correctly. The inspectors compared their observations with licensee procedure, 00AC-REG-005-0S, Preparation And Reporting Of NRC PI Data, and NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Rev. 2, to verify licensee procedure requirements and industry reporting guidelines were met.

- Safety System Unavailability - Emergency AC
- Safety System Unavailability - High Pressure Coolant Injection System

b. Findings

No findings of significance were identified.

.3 Radiation Safety Cornerstone

a. Inspection Scope

The inspectors interviewed cognizant personnel and reviewed CR's for the period January, 1, 2002, through May 9, 2002, to verify the accuracy of the data submitted by the licensee for the Occupational Exposure Control Effectiveness PI and the Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual PI. The inspectors reviewed records associated with these PI's to verify the PI data was appropriately captured for inclusion into the PI report. The inspectors compared their observations with NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Rev. 2, to verify industry reporting guidelines were met.

b. Findings

No findings of significance were identified.

4OA3 Event Follow-up

.1 Unit 2 Alert Emergency Due to Failure of Multiple Main Control Room Annunciator Panels

a. Inspection Scope

On April 2, the licensee declared an Alert Emergency as required by licensee procedure 73EP-EIP-001-0S when approximately 75% of the annunciators on panels 2H11-P601, 2H11-P602, and 2H11-P603 went into alarm. The licensee determined the annunciators went into alarm when a power supply in the annunciator cabinet failed. The inspectors observed licensee performance during the event and reviewed operator logs and licensee procedures 34AB-R42-001-0S and 34AB-H11-001-2S to verify operator actions in the control room. The licensee documented this event in CR 2002003343.

b. Findings

No findings of significance were identified.

.2 (Closed) LER 50-321/2002-001, Manual Reactor Scram Inserted Because of High Hydrogen Content in the OffGas System

This LER addresses the Hatch Unit 1 manual scram on February 8, 2002 when the off gas system hydrogen levels reached about 4%. The cause and details of the event were documented in NRC Inspection Report 50-321,366/01-08. No new findings of significance were identified. The event was entered into the licensee's corrective action program as CR 2002001309.

.3 (Closed) LER 50-366/2002-001, Component Failure in a Limit Switch Leads to Inoperability of HPCI System

This LER addresses the failure of the valve position indication on the Unit 2 High Pressure Coolant Injection turbine exhaust system primary containment isolation valve (PCIV). The licensee was unable to remotely determine the position of 2E41-F104 from the control room. As a result a second PCIV was shut as required by Technical Specifications rendering HPCI inoperable. The licensee repaired the limit switch and returned the valve to service. No findings of significance or violations of regulatory requirements were identified. The licensee documented the event in CR 2002003058.

4OA6 Meetings, Including Exit

Exit Meeting Summary

The inspectors presented the inspection results to Mr. Pete Wells, General Manager - Nuclear Plant and other members of licensee management at the conclusion of the inspection on July 9, 2002. No proprietary information was identified.

4OA7 Licensee Identified Violations

The following finding of very low significance was identified by the licensee and is a violation of NRC requirements which meet the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600 for being dispositioned as Non-Cited Violations (NCV).

NVC Tracking Number	Requirement Licensee Failed to Meet
50-366/02-03-02	Technical Specification 3.6.4.1 requires that secondary containment be operable during Modes 1, 2, and 3. Secondary containment alignment was established by procedure 34SO-T22-001-0S, Secondary Containment Alignment, Rev. 5.6 and maintained by a clearance established per procedure 30AC-OPS-001-0S, Control of Equipment Clearance and Tags, Rev. 23. On April 11, 2002, secondary containment integrity was lost when valve 1T41-F032A, Unit 1 Standby Gas Treatment Suction Damper, which was gagged shut under the clearance, failed open following the transfer of a vital electrical power supply. This violation was entered into licensee's corrective action program as CR 2002003930. This is being treated as a Non Cited Violation.

SUPPLEMENTARY INFORMATION

PERSONS CONTACTED

Licensee

Betsill, J., Assistant General Manager - Plant Support
Burkett, E., Operations Support Superintendent
Davis, D., Plant Administration Manager
Dedrickson, R., Operations Manager
Googe, M., Performance Team Manager
Hammonds, J., Engineering Support Manager
Johnson, G., Safety Audit and Engineering Review Supervisor
Kirkley, W., Health Physics and Chemistry Manager
Lewis, J., Training and Emergency Preparedness Manager
Madison, D., Assistant General Manager - Plant Operations
Reddick, J., Acting Radiation Protection Manager
Reddick, R., Site Emergency Preparedness Coordinator
Roberts, P., Outage and Planning Manager
Manning, A., Acting Chemistry Manager
Thompson, J., Nuclear Security Manager
Tipps, S., Nuclear Safety and Compliance Manager
Underwood, P., Unit Superintendent
Varnadore, R., Unit Superintendent
Wells, P., General Manager - Nuclear Plant

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-321,366/02-03-01	NCV	Inadequate SCBA Training Procedure (Section 2OS3)
50-366/02-03-02	NCV	Failure to Maintain Secondary Containment Integrity (Section 4OA7)

Closed

50-321,366/02-03-01	NCV	Inadequate SCBA Training Procedure (Section 2OS3)
50-321/2002-001	LER	Manual Reactor Scram Inserted Because of High Hydrogen Content in the OffGas System (Section 4OA3.2)
50-366/2002-001	LER	Component Failure in a Limit Switch Leads to Inoperability of HPCI System (Section 4OA3.3)

50-366/02-03-02	NCV	Failure to Maintain Secondary Containment Integrity (Section 4OA7)

INSPECTION DOCUMENTS REVIEWED

Section 1R04
34SO-E21-001-2S, Core Spray System, Rev. 19
34SO-E41-001-1S, High Pressure Coolant Injection System, Rev. 20.4
34SO-R43-001-1S, Diesel Generator Standby AC System, Rev. 21.6
34SO-R43-001-2S, Diesel Generator Standby AC System, Rev. 23.7
34SO-P51-002-2S, Instrument and Service Air System, Rev. 16.5
34AB-P51-001-2S, Loss of Instrument and Service Air, Rev. 2.2
Service and Instrument Air System, 2P51 & 2P52, Health Report, 4th Quarter 2001
Service and Instrument Air System, 2P51 & 2P52, Health Report, 1st Quarter 2002
Plant Drawing H-21028, H-21077, H-21122, H-26058, H-26060, H-26062, H-26064
Plant Drawing H-26070, H-51161
CR's 2002006454, 2002004997, 2002004896, 2001009888, 2001009878, 2001009837
CR's 2001009783, 2001009211, 2001008833, 2001008713, 2001002782, 2001002679
MWO's 29903817, 29801407, 20202351, 20200792, 20200693, 20103405, 20101998
MWO's 20101320, 20100613, 20100610, 10104370

Section 1R05
Plant Drawing A-43965, Sheet 5B
Plant Drawing A-43965, Sheet 25B
Plant Drawing A-43965, Sheet 106B

Section 1R07
42IT-TET-012-1S, Plant Service Water and RHR Service Water Piping Inspection Procedure, Rev. 2 Ed. 2
PR No. 3-43, Preliminary Report for Eddy Current Inspection of EDG 1B Air Cooler and Water Jacket Cooler, 5/23/02
PD04113.01, Record of Eddy Current Inspection of Diesel Generator 1B Water Jacket, Oil and Air Coolers at Plant Hatch, Unit #1, August 27-28, 1997
MWO's 20200444, 1020098

Section 1R15
34SO-T41-001-1S, CRD Pump Room Ventilation System
34AB-T41-001-1S, Loss of ECCS, MCREC, or Area Ventilation System(s)
42EN-ENG-026-0S, Service Water Systems Heat Exchanger Testing
42IT-TET-014-1S, Safeguard Equipment Room Coolers Data Collection
Calculation 0069, Minimum PSW Flow Requirements for Various 2T41 and 2Z41 Room Coolers
Calculation 0070, Minimum PSW Flow Requirements for Various T41 and Z41 Room Coolers
CR's 2002005984, 2002006360

Section 1R19
DI-MNT-49-0796N, Maintenance Work Order Processing
95IT-OTM-001-0S, Maintenance Work Order Functional Test
42EN-ENG-014-0S, ASME Section XI Repair/Replacement

Section 2OS1
60AC-HPX-001-0S, Radiation Exposure Limits
60AC-HPX-002-0S, Personnel Dosimetry Program
60AC-HPX-003-0S, Bioassay Program
60AC-HPX-004-0S, Radiation & Contamination Control
60AC-HPX-007-0S, Control of Radioactive Materials
60AC-HPX-009-0S, ALARA Program
60AC-HPX-0012, Overview of Radiological Work Practices & Radiation Protection
Administrative Control Procedure(s) ACP's
62RP-RAD-001-0S, Dosimetry Issuance & Tracking
62RP-RAD-006-0S, RWP Processing
62RP-RAD-008-0S, Radiation & Contamination Surveys
62RP-RAD-009-0S, Air Sampling & Concentration Determination
62RP-RAD-016-0S, Very High & High Radiation Area Access Control
62RP-RAD-047-0S, Independent Spent Fuel Storage Installation Radiological Controls
62HI-OCB-077-0S, Merlin-Gerin DMC-100 Digital Alarming Dosimeter
RWP 02-1012, Radiography in All plant Locations and Support
RWP 02-1205, Disassemble/Reassemble Reactor Vessel, Cavity/Dryer-separator Work, & Supporting Activities
RWP 02-1004, TIP Removal, Replacement, Transfer Drive Maint, Squib Valves Test & Support Activities
RWP 02-150, Rebuild/Repair/Replace Components and Supt Wk (Recomb/WGT Buildings)

Section 2OS3
62HJ-OCB-028 0S, Energy Calibration, People Mover, Dated 3/14/02
64CI-CAL-003-0N, PASS Weekly Surveillance Calibration, dated 4/17/02, 4/24/02, 5/8/02, 5/14/02, 5/21/02, 5/28/02, 6/4/02, 6/11/02
64CI-SUV-001-0N, PASS Weekly Room Surveillance, dated 4/3/02, 4/10/03, 4/16/02, 4/17/02, 4/23/02, 5/13/02, 5/17/02, 5/20/02, 6/3/02, 6/11/02
62HI-OCB-095-0S, HFM-7A Semi Annual Calibration, dated 4/25/02
62HI-OCB-066-0S, HFM-6 Setup and Calibration, dated 4/3/02
62HI-OCB-103-0S, PM-7 Calibration Report, dated 3/28/02
62HI-OCB-051-0S, PM-6 Setup Calibration Form, dated 4/6/02
62HI-OCB-073-0S, PCM-1Setup and Calibration, dated 2/11/02
CR 2002006053, Approximately 115 gallons of contaminated water was pumped into the Unit 2 Flume.
60AC-HPX-006-0S
62HI-OCB-039-0S, Daily Source Checks
62HI-OCB-015-0S, ARM Portable Calibration Unit
62HI-OCB-028-0S, Use and Calibration of Whole Body Counters
62HI-OCB-080-0S, Operation and Calibration of Shepherd Model 89-400 Calibrator
62HI-OCB-062-0N, SCBA Charging System Operation, Rev.2, dated 12/15/93
Condition Report 2002006279, Evaluate the need to include "Changing air cylinders" in General SCBA Training, dated 6/13/02

Section 2PS1
64CI-OCB-032-0S, KAMAN: Source Calibration, (U1 Reactor Building vent monitor), dated 10/26/01

CR 2002005964, Southern Nuclear Company received notification from the State of Georgia Environmental Protection Division Compliance & Enforcement Unit May 13, 2002..drinking water sample not received...

64CH-RPT-006-0S, Liquid Effluent Reports, Rev.4.9, dated 2/28/02

60AC-HPX-003-0S, Bioassay Program

62RP-RAD-003-0S, Use and Care of Respirators

Southern Company E.I. Hatch Nuclear Plant Units 1 & 2 Annual Report Plant Radioactive Effluent Releases January 1, 2000 Through December 31, 2000

Southern Company E.I. Hatch Nuclear Plant Units 1 & 2 Annual Report Plant Radioactive Effluent Releases January 1, 2001 Through December 31, 2001

Offsite Dose Calculation Manual for Georgia Power Company Edwin I. Hatch Nuclear Plant

Section 2PS3

Edwin I. Hatch Nuclear Plant Annual Radiological Environmental Operating Report for 2001, dated 04/30/02

62HI-OCB-090-OS, NE Technology SAM-9 Bag Waste Monitor and SAM -9 and SAM-11 Small Articles Monitor and Calibration

62HI-OCB-107-OS, Operation and Calibration of the RM-25 Count Rate Meter

62HI-OCB-090-0S, SAM 9 Semi Annual Calibration, dated 4/12/02, 4/18/02, 4/29/02

62HI-OCB-090-0S, SAM 11, Setup and Calibration, dated 2/25/02, 3/22/02

B-3568-016, Station 170 River Water Liquid Sampler Pump Calibration Data, dated 05/06/2002

B-2537-11, Station 172 River Water Liquid Sampler Pump Calibration Data, dated 05/06/2002

Field Data Sheets for Air Samplers Flow Meter Correction 103, 107, 112, 116, 304, 309, dated 06/11/02

Flow Meter Calibration For Air Samplers 103, 107, 112, 116, 304, 309, dated 04/22/02

ENV-931, Collection and Handling of Fish Samples for Radiological

ENV-932, Collection and Handling of Sediment Samples for Radiological Analysis

ENV-936, Collection and Handling of Milk Samples for Radiological Analysis, Rev. 8, dated 08/14/98

ENV-937, Collection and Handling of River Water Samples for Radiological Analysis

ENV-938, Collection and Handling of Grass Samples for Radiological Analysis

ENV-939, Instructions for Monitoring of Gamma Radiation Exposure in the Vicinity of Edwin I. Hatch Nuclear Plant by Thermoluminescent Dosimeters

Section 4OA1

Audit No. 01-HPC-1, Log: LR-SAER-001-0901, Audit of Health Physics and Chemistry, dated 9/10/01

CR 2001007937, Carpenters erected scaffolding near locked high rad area, dated 09/21/01

CR 2001008804, Alarming Dosimeter, dated 10/09/01

CR 2001009225, Potentially contaminated tool in service building, dated 10/17/01

CR 2001010182, Failure of alarming dosimeter, dated 11/07/01

CR 2002002928, Worker failed to notify HP of alarming PCM, dated 03/25/2002

CR 2002003126, Water dripping from Sealand container, dated 03/29/02
CR 2002003579, Failure to obtain offsite release survey by workers, dated 04/05/02
CR 2002003834, Failure to survey jacket, dated 04/10/02
CR 2002005388, Back up met tower recoverable data, dated 05/17/02
Offsite Dose Calculation Manual for Georgia Power Company Edwin I. Hatch Nuclear Plant,