



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

January 29, 2001

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

SUBJECT: EDWIN I. HATCH NUCLEAR POWER PLANT - NRC INTEGRATED  
INSPECTION REPORT NOS. 50-321/00-05 AND 50-366/00-05

Dear Mr. Sumner:

On December 30, 2000, the NRC completed an inspection at your Hatch Units 1 and 2. The enclosed integrated report presents the results of that inspection which were discussed on January 3, 2001, with Mr. P. 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.

No findings of significance were identified by the NRC.

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 electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.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: Inspection Report 50-321/2000-05, 50-366/2000-05

cc w/encl: (See page 2)

SNC

2

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PUBLIC DOCUMENT (circle one): YES NO

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NAME	CRapp	JMunday	JStarefos	TFredette	BCrowley	MScott	DForbes
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U. S. NUCLEAR REGULATORY COMMISSION (NRC)

REGION II

Docket Nos: 50-321, 50-366

License Nos: DPR-57, NPF-5

Report No: 50-321/00-05 and 50-366/00-05

Licensee: Southern Nuclear Operating Company, Inc. (SNC)

Facility: Edwin I. Hatch Nuclear Power Plant, Units 1 & 2

Location: P. O. Box 2010  
Baxley, Georgia 31515

Dates: October 1 through December 30, 2000

Inspectors: J. Munday, Senior Resident Inspector  
J. Starefos, Acting Senior Resident Inspector  
T. Fredette, Resident Inspector  
B. Crowley, Senior Reactor Inspector (Section 1R08)  
M. Scott, Senior Reactor Inspector (Section 1R08)  
D. Forbes, Radiation Specialist (Sections 2OS2 and 2OS3)  
D. Thompson, Physical Security Inspector (Sections 3PP1, 3PP2,  
and 4OA3.3)  
C. Rapp, Sr. Project Engineer (Sections 1R05, 1R19 and 1R20)

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

Enclosure

## SUMMARY OF FINDINGS

IR 05000321-00-05, IR 05000366-00-05, on 10/01-12/30/2000; Southern Nuclear Operating Company, Inc.; Edwin I. Hatch Nuclear Power Plant, Units 1 & 2; Resident Routine Operations Report.

This report covers a 13-week period of inspection conducted by resident inspectors, a regional physical security inspector, a regional project engineer, two regional maintenance inspectors, and a regional radiation specialist. The significance of issues would be indicated by their color (green, white, yellow, or red) as determined by the Significance Determination Process in NRC Inspection Manual Chapter 0609.

### A. Inspector Identified Findings

There were no findings of significance.

### B. Licensee Identified Violations

Violations of very low significance which were identified by the licensee have been reviewed by the inspectors. Corrective actions taken or planned by the licensee appear reasonable. These violations are listed in section 4OA7 of this report.

## Report Details

Unit 1 began this inspection period in a planned refueling outage. The unit was restarted on November 3 and power ascension commenced until November 6 when the unit was placed in hot shutdown to repair a condensate demineralizer. The unit reached 100% Rated Thermal Power (RTP) on November 10. On November 24, power was reduced to about 35% RTP to repair balance-of-plant equipment. The unit was returned to 100% RTP on November 26 and operated at or near 100% RTP for the remainder of the inspection period.

Unit 2 operated at or near 100% RTP during the inspection period.

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

#### 1R04 Equipment Alignment

##### a. Inspection Scope

The inspectors reviewed licensee procedures 34SO-G71-001-0S, Decay Heat Removal System, 34SO-T48-002-1S, Containment Atmosphere Control and Dilution, 34SO-X43-001-1S, Fire Pumps Operating Procedure, and 34SO-E41-001-1S, High Pressure Coolant Injection System and examined a sampling of component positions. The inspectors reviewed selected components to verify that they were in the correct procedural alignment for the following systems:

- Unit 1 Decay Heat Removal System
- Unit 1 Containment Atmospheric Dilution System
- Plant Fire Suppression System
- Unit 1 High Pressure Coolant Injection System (HPCI)

##### b. Findings

No findings of significance were identified.

#### 1R05 Fire Protection

##### a. Inspection Scope

The inspectors verified that the fire detection and suppression equipment was in the expected location, as described by the licensee's Pre-Fire Plan drawing A-43965 Sheets 23B & 49B and drawing A-43966 Sheet 5B. Fire barriers and penetration seals were verified to be intact, plant fire suppression valves and piping and fire detection system components were observed to be free of obvious damage, and transient combustibles and ignition sources for the following areas were verified to be controlled:

- Fire Zone 0024C, 0024D, 0101F, 0101G, and 0101H, Main Control Room areas
- Fire Zone 2018, West DC Switchgear Room 2A
- Fire Zone 2408, Switchgear Room 2F
- Fire Zone 2016, West 600V Switchgear Room 2C
- Fire Zone 0040, Control Building Vertical Cable Chase

- Fire Zone 2014, East DC Switchgear Room 2B
- Fire Area 0501, Intake Structure

b. Findings

No findings of significance were identified.

1R08 Inservice Inspection (ISI)

a. Inspection Scope

The inspectors reviewed procedures, documents, and selected ISI records and observed the ISI work activities listed in Attachment 2. The inspectors reviewed Condition Report (CR) Nos. 0008750, 0008785, and 0008947, including associated Indication Notification Forms, to verify that the licensee was identifying and correcting ISI issues. Also, Nondestructive Examination records for the Residual Heat Removal system (RHR), weld 1E11-1RHR-9A-HS-1, were reviewed. Additionally, radiographic films for recently fabricated Unit 2 Reactor Water Cleanup system pipe welds, under Maintenance Work Order (MWO) 2-99-3675, were reviewed.

The inspectors also reviewed the ASME Section XI repair and replacement packages under the following MWOs:

- MWO 1-00-3219 - Repair of Pipe Support 1N11-TBH-26
- MWO 1-00-0252 - Reactor Pressure Vessel Relief Valve
- MWO 1-00-1412 - Low Pressure Coolant Injection Loop Relief Valve
- MWO 1-00-0108-02 - Four Inch Service Water Piping Section to the RHR and CS Room Cooler
- MWO 1-00-1523 - RV Bottom Head Drain Sensor.

The above observations and records were compared to the Technical Specifications (TS) and Section XI of the ASME Boiler and Pressure Vessel Code, 1989 Edition, with no Addenda and licensee procedure 42EN-ENG-014-0S, ASME Section XI Repair/Replacement, to verify regulatory and procedure requirements were met.

Qualification and certification records for examiners were reviewed to verify compliance with procedure AUX-H/F/V-300, Procedure (Written Practice) for Qualification and Certification of Nondestructive Examination Personnel. Calibration records for equipment used during these activities were also reviewed for compliance with procedure AUX-H/F/V-303, Control of Measuring and Testing Equipment.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (Resident Quarterly Review)a. Inspection Scope

The inspectors observed the performance of two simulator scenarios during licensed operator requalification training. The scenarios tested the operators ability to operate during normal, abnormal, and emergency plant conditions including evaluation of malfunctions, implementation of Technical Specification requirements, and use of normal, abnormal, and emergency operating procedures. The inspectors verified clarity and formality of communication, use of procedures, alarm response, control board operations, including high risk manipulations, group dynamics, and supervisory oversight. Training in the areas previously identified by the licensee as needing improvement was assessed by observing operator performance. The inspectors also attended and assessed the effectiveness of the licensee's post training critique.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementationa. Inspection Scope

The inspectors reviewed the licensee's implementation of the Maintenance Rule (10 CFR 50.65) and procedure 40AC-ENG-020-0S, Maintenance Rule Implementation & Compliance. The inspectors verified the associated a(1) or a(2) system classification, the appropriateness of the a(2) performance criteria, that a(1) goals, if required, were established, and that corrective actions for a(1) conditions were planned or being implemented for the following equipment deficiencies:

- Station Service Air System - Air Compressor Electrical Faults and Trips
- Residual Heat Removal Service Water - Degraded Flow
- HPCI - Erratic Flow Controller
- Emergency Diesel Generator - Lube Oil Temperature Control

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluationa. Inspection Scope

The inspectors evaluated the effectiveness of the risk assessments. In some cases, formal written evaluations were reviewed; in other cases discussions with operators, inspector observations, or independent inspector review were used to determine that adequate control was maintained for the following maintenance work activities:



- Repair Unit 2 steam leaks including Startup Level Control valve
- Repair 1A Moisture Separator Reheater manway leak
- Unit 2 Residual Heat Removal Service Water (RHRSW) strainer clogging
- Diesel Fire Pump #2 discharge relief valve repositioned/repair
- 1A Plant Service Water pump inoperable with 1A traveling water screen out of service
- Unit 1 Reactor Recirculation Motor-Generator Set Brush Inspection/Replacement

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Nonroutine Plant Evolutions

a. Inspection Scope

The inspectors reviewed procedure 34SO-E51-001-1S, Reactor Core Isolation Cooling System, and observed control room operator performance when using the Reactor Core Isolation Cooling (RCIC) system for controlling reactor pressure while Unit 1 was in hot shutdown from November 6-9. Additionally, the inspectors observed portions of “just-in-time” simulator training for operating the RCIC system.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope

The inspectors assessed the technical adequacy of operability evaluations to verify that system or component operability was properly justified and there was no unrecognized increase in risk or impact on continued plant operations for the following systems and components:

- Unit 1 RHR Loop “B” Diagonal Room Cooling Without Plant Service Water Available
- Unit 1 Reactor Vessel Loose Parts Impact Assessment
- Unit 1 Reactor Core Isolation Cooling Operability from the Remote Shutdown Panel
- Torus-to-Drywell Vacuum Breaker 1T48-F323F
- Operation of a Hydraulic Control Unit with an Inoperable Level Switch

b. Findings

No findings of significance were identified.

## 1R19 Post Maintenance Testing

### a. Inspection Scope

The inspectors reviewed the Test Instructions for 4KV Circuit Breaker Modifications, DCR 98-012, and licensee procedure 34IT-OPS-004-0S, Dynamic VOTES Testing, to verify the adequacy of the testing. The inspectors also verified that the scope of testing specified in the associated MWOs demonstrated that the work performed was correct and that the affected equipment was operable after the following post-maintenance tests:

- Design Change Request 98-012 functional testing
- Unit 1 High Pressure Coolant Injection Minimum Flow Valve operator dynamic testing
- Diesel Fire Pump #2 coolant leak
- Diesel Fire Pump #2 fuel injector failure
- Unit 1 Torus-to-Drywell Vacuum Breaker functional testing
- Unit 2 Standby Gas Treatment B Outlet Damper solenoid failure

### b. Findings

No findings of significance were identified.

## 1R20 Refueling and Outage Activities

### a. Inspection Scope

The inspectors assessed the licensee's Unit 1 refueling outage controls and risk management. The inspectors walked down portions of systems and verified system lineups and configuration for reactor coolant system instrumentation, electrical distribution, decay heat removal, and both primary and secondary containment for the plant operational modes. The inspectors compared system configurations with those identified in the licensee's outage safety assessment on a periodic basis. The inspectors monitored selected equipment clearance activities, fuel movement and refueling floor evolutions, and preparations for unit startup. The inspectors also observed portions of the unit startup, control rod withdrawal to criticality, and reactor coolant system heat-up to verify regulatory and procedural requirements were met.

### b. Findings

No findings of significance were identified.

## 1R22 Surveillance Testing

### a. Inspection Scope

The inspectors either witnessed surveillance testing or reviewed surveillance test records to verify that the testing scope demonstrated that the affected equipment was operable following the test. Observations and test records reviewed were compared to

licensee test procedure and/or Technical Specification acceptance criteria. The assessment was completed for the following test procedures:

- 42SV-TET-001-1S, Primary Containment Periodic Type B and C Leakage Tests
- 42SV-E11-004-1S, U1 Residual Heat Removal Shutdown Cooling Logic System Functional Test
- 34SV-E51-002-2S, Unit 2 Reactor Core Isolation Cooling Operability
- 42SV-C71-001-1S, Unit 1 Reactor Protection System Logic System Functional Test
- 52SV-E51-001-1S, Unit 1 Reactor Core Isolation Cooling System Leakage Inspection
- 34SV-E51-005-1S, Operation of Unit 1 Reactor Core Isolation Cooling System From the Remote Shutdown Panel
- 34SV-P41-001-1S, Plant Service Water Pump Operability

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications

a. Inspection Scope

The inspectors reviewed and or witnessed part of the following temporary modifications (TMMs) to verify that configuration control was maintained. Additionally, the inspectors assessed the associated safety evaluations to verify that the evaluations adequately justified TMM implementation.

- TMM 1-00-20, Source Range Monitor Electrical Ground Stabilization/Restoration
- TMM 1-00-24, Emergency Diesel Building Carbon Dioxide System
- TMM 1-00-22, Service Air Modifications on Refuel Floor
- TMM 1-97-30, Main Control Room Air Conditioner "B" Plant Service Water Supply
- TMM 1-00-07, Cable Pull Box PB1-DH Temporary Sump Pump
- TMM 2-00-25, Reactor Feed pump suction pressure tap reroute

b. Findings

No findings of significance were identified.

2. **RADIATION SAFETY**  
**Cornerstone: Occupational Radiation Safety**

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

a. Inspection Scope

The inspectors reviewed radiation work permits, internal dose assessments, the plant collective exposure history, current exposure dose trends, and observed ongoing work during plant walkdowns for the ongoing Unit 1 refueling outage. The reviews were completed to determine if the licensee was implementing ALARA practices as required

by 10 CFR 20.1101(b) and licensee procedure 60AC-HPX-009-0S, ALARA Program. The inspectors also discussed ALARA practices implemented during the outage with health physics personnel.

b. Findings

No findings of significance were identified.

2OS3 Radiation Monitoring Instrumentation

.1 Area Radiation Monitors (ARMs)

a. Inspection Scope

The inspectors evaluated the accuracy and operability of radiation monitoring instruments used for the protection of occupational radiation workers. The review included the operability of ARMs identified in the Updated Final Safety Analysis Report (UFSAR). The inspectors observed ARM equipment material conditions and verified local and control room radiation monitor readouts were in agreement. The inspectors reviewed alarm set points and calibration records for four ARMs capable of measuring high radiation. During this review, the inspectors used procedures 57CP-CAL-005-1S, ARM System Calibration, and 57CP-CAL-005-2S, ARM System Calibration, to verify that the monitors were properly calibrated.

b. Findings

No findings of significance were identified.

.2 Portable Survey Instrumentation

a. Inspection Scope

The inspectors reviewed the accuracy, operability, calibration, storage, and source checks of portable survey instruments, portal monitors and whole body counters to verify correct implementation of licensee procedures. The review was completed in order to ensure that the licensee was surveying workers for radiation doses as required by 10 CFR 20.1501.

b. Findings

No findings of significance were identified.

.3 Self Contained Breathing Apparatus (SCBA)

a. Inspection Scope

The inspectors evaluated the adequacy of the licensee's respiratory protection program for providing SCBAs to radiation workers in areas of unknown radiological conditions or where the atmosphere could be immediately dangerous to life and health. The

inspectors observed equipment staged for use, availability of operator eyeglasses, and verified required SCBA training for operators was current. During this review, the inspectors used procedures 62RP-RAD-003-OS, Use And Care Of Respirators, and 62HI-OCB-062-ON, SCBA Charging System Operation, to verify the SCBA equipment was being properly maintained.

b. Findings

No findings of significance were identified.

.4 Problem Identification and Resolution

a. Inspection Scope

The inspectors reviewed licensee self-assessments, audits, and Corrective Action Reports. The review focused on radiological incidents that involved personal contamination, monitor alarms due to personnel internal exposures, and incidents that involved radiation monitoring instrument deficiencies to verify that the licensee was identifying and correcting deficiencies.

b. Findings

No findings of significance were identified.

**3. SAFEGUARDS**  
**Cornerstone: Physical Protection**

3PP1 Access Authorization

a. Inspection Scope

The inspectors reviewed licensee procedures, Fitness For Duty (FFD) reports, and licensee audits. Additionally, the inspectors interviewed five representatives of licensee management and five escort personnel concerning their understanding of the behavior observation portion of the personnel screening and FFD program. In interviewing these personnel, the inspectors reviewed both the effectiveness of their training and ability to recognize aberrant behavioral traits. Licensee procedures and documents reviewed are documented in Attachment 2 of this report.

b. Findings

No findings of significance were identified.

3PP2 Access Control

a. Inspection Scope

The inspectors observed access control activities on November 27-30, and equipment testing conducted on November 29. In observing the access control activities, the inspectors assessed if officers could detect contraband before entering the protected

area. Additionally, through observation, review of procedures, and log entries, the inspectors assessed if the officers were conducting access control equipment testing in accordance with regulatory requirements. Preventative and post maintenance procedures were reviewed and observed as performed. Licensee procedures and documents reviewed are documented in Attachment 2 of this report.

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES**

4OA1 Performance Indicator Verification

a. Inspection Scope

The inspectors reviewed procedure 00AC-REG-005-0S, Preparation and Reporting of NRC PI Data and methods for compiling and reporting performance indicators (PI's) for safety system unavailability (SSU). The inspectors reviewed raw PI data since January, 2000 and compared the most recent PI report to the raw data. The inspectors reviewed operations logs and clearance and equipment "out of service" (OOS) data to determine if equipment OOS time was included in the PI report and that SSU data was calculated correctly for each of the following systems:

- HPCI
- RCIC
- Emergency Diesel Generators (EDG)
- RHR

b. Findings

No findings of significance were identified.

4OA3 Event Follow-up

Licensee Event Reports (LER's)

.1 (Closed) LER 50-321/2000-008-00, Inadequate Procedure Results in Unplanned Actuation of Engineered Safety Feature (ESF)

The licensee identified that an inadequate procedure resulted in an unplanned actuation of a containment isolation valve (PCIV) during testing of the post-accident sample system (PASS). The inspectors determined that this inadequate procedure was a violation of NRC requirements; however, since the valve closed as designed and there was no impact on plant safety due to the actuation, this violation is of minor significance and is not subject to enforcement action in accordance with Section IV of the NRC's Enforcement Policy. This violation was entered into the licensee's corrective action program as Condition Report CO 0007584.

.2 (Closed) LER 50-321/2000-010-00, Personnel Error Results in a Condition Prohibited by the Plant's Technical Specifications

The licensee identified that a personnel error resulted in the unplanned removal from service of the 1B Core Spray minimum flow valve while the 1A Low Pressure Coolant Injection (LPCI) train was inoperable for logic system functional testing. This configuration resulted in both the 1B Core Spray and 1A LPCI trains being inoperable for 22 minutes.

The inspectors evaluated this issue for risk and determined that this issue could have a credible impact on safety since two independent trains of low pressure Emergency Core Cooling System subsystems were rendered inoperable. This finding was evaluated using the Significance Determination Process and determined to be of very low significance. This issue was entered in the licensee's corrective action program as Condition Report (CR) CO 0008198. The regulatory significance of this item is dispositioned in Section 4OA7 of this report.

.3 Licensee Event Reports (LER's)

The following LER's were reviewed by the inspectors and verified to be included in the licensee's corrective action program. No findings of significance were identified. These LER's are closed.

- 50-321/2000-004-00, Component Failure Causes Turbine Trip and Reactor Scram
- 50-321/2000-005-00, Failure of Turbine Stop Valve to Close Renders High Pressure Coolant Injection (HPCI) System Inoperable
- 50-321/2000-006-00, Failed Relay Results in Unplanned Actuation of Engineered Safety Feature
- 50-321/2000-007-00, Component Failure Resulting in Erratic Flow Signal Renders HPCI System Inoperable
- 50-321/2000-009-00, Component Failure Results in Failure of Engineered Safety Feature to Actuate During Surveillance Testing
- 50-321/2000-010-00, Personnel Error Results in a Condition Prohibited by the Plant's Technical Specifications
- 50-321/2000-011-00, Trip of Reactor Feedwater Pump Results in Low Reactor Water Level and Manual Reactor Scram (event was previously documented in Inspection Report 50-321,366/00-04)
- 50-321/2000-012-00, Reactor Scram Causes Group 2 PCIS Isolation
- 50-366/2000-008-00, Trip of 600-volt Supply Breaker Causes Loss of RPS Power Supply and Unplanned ESF System Actuations
- 50-366/2000-009-00, Low Station Service Battery Room Temperatures Result in Entry Into LCO 3.0.3
- 50-321, 366/ S02 - 2000, The failure of two contract employees to provide complete background information

4OA5 Other

(Closed) Unresolved Item (URI) 50-321, 366/00009-01: Deletion of Fire Protection Elements Without Prior NRC Review and Approval. License Renewal (LR) Inspection Report 50-321, 366/00009 identified two fire protection issues during the LR scoping and screening reviews which were classified as an URI pending further NRC review of associated regulatory requirements. Per the NRC process for LR inspections, issues identified that have current 10 CFR 50 license regulatory implications will be resolved by the regional staff. Therefore, this URI was addressed by regional inspectors who reviewed associated engineering evaluations and licensee modification documents to determine if regulatory requirements were met.

The first issue involved removal of a Halon fire extinguishing system in the Unit 2 Remote Shutdown Panel. The system was referenced in a 1984 NRC Safety Evaluation Report for an exemption to 10 CFR 50 Appendix R. The licensee determined that the above Halon system was never necessary to meet 10 CFR 50 Appendix R requirements as was assumed during initial plant licensing. The licensee therefore removed the Halon system and the associated regulatory commitment for the Halon system following the guidance of NEI 99-04, Guidelines for Managing NRC Commitment Changes, as endorsed by NRC Regulatory Issue Summary 2000 - 17. The inspectors concluded the licensee's changes were appropriate and no violation of regulatory requirements was identified.

The second URI example involved the identification by NRC LR reviewers that the licensee inadvertently removed yard fire hydrants from the Fire Hazards Analysis (FHA) and its associated operability and testing requirements. At the conclusion of the LR inspection, the licensee planned to place the hydrants in scope for LR aging management and restore the hydrants operability and testing requirements to the FHA. Since the hydrants had remained functional in the interim and continued to be tested by licensee surveillance procedures which had not yet been modified, the impact of removal from the FHA was administrative only and therefore of minor significance. The inspectors confirmed that the licensee had corrected the FHA and entered the problem in the licensee corrective action program as CR-2000008093. Although the Hatch Operating License paragraph 2.C.(3). (b) states "Southern Nuclear may make changes to the fire protection program without prior approval of the Commission only if the changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire," the removal of the fire hydrants from the FHA was not fully implemented and did not impact or affect the ability to achieve and maintain safe shutdown. Therefore, the NRC determined this was a violation of minor significance that is not subject to enforcement action in accordance with Section IV of the NRC Enforcement Policy.



4OA6 Management Meetings.1 Exit Meeting Summary

The inspectors presented the inspection results to Mr. P. Wells, Plant Manager, and other members of licensee management at the conclusion of the inspection on January 3, 2001. The licensee acknowledged the findings presented.

The inspectors asked the licensee if any other materials examined during the inspection should be considered proprietary. No proprietary information was identified.

4OA7 Licensee Identified Violations

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

<u>Tracking Number</u>	<u>Regulatory Requirement Violated</u>
NCV 50-321/00005-01	Unit 1 Technical Specification 5.4.1.a requires that written procedures shall be implemented covering the activities listed in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978. Maintenance personnel failed to follow procedures and maintenance work order (MWO) work process sheets and removed the 1B Core Spray minimum flow valve from service while the 1A Low Pressure Coolant Injection train was inoperable. This violation was entered in the licensee's corrective action program as Condition Report (CR) CO 0008198. (Section 4OA3.2)
NCV 50-321,366/00005-02	The site Physical Security Plan requires that all individuals requiring unescorted access to the protected and vital areas are screened according to established guidance. In Licensee Event Report S01 - 2000, the licensee identified that an unauthorized individual gained access to protected and vital plant areas contrary to Physical Security Plan requirements. This issue was entered in the licensee's corrective action program as Condition Report (CR) CO 0008108.

**PARTIAL LIST OF PERSONS CONTACTED**Licensee

Betsill, J., Assistant General Manager - Plant Support  
 Burkett, E., Operations Support Superintendent  
 Curtis, S., Unit 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 - Operations  
 Reddick, R., Site Emergency Preparedness Coordinator  
 Roberts, P., Outage and Modifications Manager  
 Thompson, J., Nuclear Security Manager  
 Tipps, S., Nuclear Safety and Compliance Manager  
 Varnadore, R., Unit Superintendent  
 Wells, P., General Manager - Nuclear Plant

Other licensee employees contacted included office, operations, engineering, maintenance, chemistry/radiation, and corporate personnel.

NRC

S. Cahill, Chief, Reactor Projects Branch 2  
 L. Olshan, Hatch Project Manager, NRR

**ITEMS OPENED, CLOSED, AND DISCUSSED**Items Opened and Closed

50-321/00005-01	NCV	Failure to Follow Procedure Results in Two Low Pressure Emergency Core Cooling Systems Being Rendered Inoperable (Section 40A7)
50-321,366/00005-02	NCV	An unauthorized individual gained access to protected and vital plant areas contrary to Physical Security Plan requirements (Section 40A7)

Items Closed

50-321/2000-004-00	LER	Component Failure Causes Turbine Trip and Reactor Scram (Section 40A3.3)
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50-321/2000-005-00	LER	Failure of Turbine Stop Valve to Close Renders High Pressure Coolant Injection (HPCI) System Inoperable (Section 4OA3.3)
50-321/2000-006-00	LER	Failed Relay Results in Unplanned Actuation of Engineered Safety Feature (Section 4OA3.3)
50-321/2000-007-00	LER	Component Failure Resulting in Erratic Flow Signal Renders HPCI System Inoperable (Section 4OA3.3)
50-321/2000-008-00	LER	Inadequate Procedure Results in Unplanned Actuation of Engineered Safety Feature (Section 4OA3.1)
50-321/2000-009-00	LER	Component Failure Results in Failure of Engineered Safety Feature to Actuate (Section 4OA3.3)
50-321/2000-010-00	LER	Personnel Error Results in a Condition Prohibited by the Plant's Technical Specifications (Sections 4OA3.2 and 4OA7)
50-321/2000-011-00	LER	Trip of Reactor Feedwater Pump Results in Low Reactor Water Level and Manual Reactor Scram (Section 4OA3.3)
50-321/2000-012-00	LER	Reactor Scram Causes Group 2 PCIS Isolation (Section 4OA3.3)
50-366/2000-008-00	LER	Trip of 600-volt Supply Breaker Causes Loss of RPS Power Supply and Unplanned ESF System Actuations (Section 4OA3.3)
50-366/2000-009-00	LER	Low Station Service Battery Room Temperatures Result in Entry Into LCO 3.0.3 (Section 4OA3.3)
50-321,366/00009-01	URI	Deletion of Fire Protection Elements Without Prior NRC Review and Approval (Section 4OA5)
50-321/2000-S01	LER	Unauthorized Person Enters Protected and Vital Areas (Section 4OA7)
50-321/2000-S02	LER	Failure of Two Contract Employees to Provide Complete Background Information (Section 4OA3.3)

## NRCs REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

### **Reactor Safety**

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness

### **Radiation Safety**

- Occupational
- Public

### **Safeguards**

- Physical Protection

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent little effect on safety. WHITE findings indicate issues with some increased importance to safety, which may require additional NRC inspections. YELLOW findings are more serious issues with an even higher potential to effect safety and would require the NRC to take additional actions. RED findings represent an unacceptable loss of safety margin and would result in the NRC taking significant actions that could include ordering the plant shut down.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. The color for an indicator corresponds to levels of performance that may result in increased NRC oversight (WHITE), performance that results in definitive, required action by the NRC (YELLOW), and performance that is unacceptable but still provides adequate protection to public health and safety (RED). GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, as described in the matrix. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings.

More information can be found at: <http://www.nrc.gov/NRR/OVERSIGHT/index.html>.

## Inservice Inspection Activities Observed

### Section 1R08

- Reactor Pressure Vessel (RPV) Head Welds 1B11\HC-1-G and HC-1-H
- Penetration X-3 (Drywell Dome Bolting) 28 - 33
- RPV Head Nuts and Washer 1B11/19-24
- In-vessel Video Inspection of RPV General Structural Condition
- In-vessel Video Inspection of Core Plate Components 1B11\G-28-13-1, 13-2, 49, and 1B11\P44
- IWE inspection of Drywell Liner and Mastic Seal
- Reactor Water Cleanup Pipe welds 1G31-RWCU-6-D8 and D10
- Core Spray Pipe weld 1E21-1CS-10B-5
- B Loop Recirculation Inlet Nozzle 1B11\N2E
- In-vessel Video Inspection of Jet Pump Components 1B11 \J5N, \J5D, \J6N, \J6D, \J10N, \J13N, and \J5/6G
- Residual Heat Removal Pipe Hangers 1E11-1RHR-9A-HS-FB and 1E11-1RHR-9A-HS-1
- In-vessel Video Inspection of Core Spray piping and components 1B11/N3AA, N4AA, N8AA, N9AA, N10AA, N13AA, N15AA AND N179AC
- Spray Piping and Components 1B11/N3AA, 4NAA, N8AA, N9AA, N10AA, N13AA, N15AA, and N179AC
- Radiographic film for the RWCU system, FW1-6 on MWO 2-99-3675

## Licensee Procedures and Documents Review

### Sections 3PP1, 3PP2 and 4OA3.3

- Southern Nuclear Operating Company Procedure 720-001, Fitness For Duty
- Fitness for Duty Semi-Annual Report, January through October, 2000
- Safeguard Event Logs, 2000
- Administrative Control Procedure, Plant Hatch, Fitness For Duty, Revision 7, dated August 18, 1998.
- Administrative Guideline Procedure, AG-MGR-34-0388N, Personnel Inprocessing Program, Revision 2, dated July 15, 1992.
- Fitness-for-Duty/Continual Behavior Observation General Employee Training
- Fitness-for-Duty/Continual Behavior Observation Supervisory Training
- Security Incident Reports, January 2000 to present