

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos: 50-321, 50-366

License Nos: DPR-57, NPF-5

Report Nos: 50-321/99-08, 50-366/99-08

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

Facility: E. I. Hatch Plant, Units 1 & 2

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

Dates: November 14 - December 25, 1999

Inspectors: J. Munday, Senior Resident Inspector  
T. Fredette, Resident Inspector  
D. Forbes, Regional Inspector (Sections R1.1, R1.2, R2.1)  
L. Hayes, Regional Inspector (Sections S1.1, S2.1, S2.2)

Approved by: Joel T. Munday, Acting Chief  
Reactor Projects Branch 2  
Division of Reactor Projects

Enclosure

## EXECUTIVE SUMMARY

Hatch Nuclear Plant, Units 1 & 2  
NRC Inspection Report 50-321/99-08, 50-366/99-08

This integrated inspection included aspects of licensee operations, engineering, maintenance, and plant support. The report covers a six-week period of resident inspection. In addition, it includes inspection in the areas of Health Physics and Physical Security by regional inspectors.

### Operations

- The inspectors did not identify any freeze protection issues the licensee had not already identified and taken corrective action. In addition, the inspectors verified that the licensee was making the appropriate equipment checks when outside air temperature dropped below 40°F (Section O2.2).

### Engineering

- Decisions regarding the Maintenance Rule classification of systems and components and for establishing corrective actions and performance goals were made appropriately. The inspector concluded that the Maintenance Rule program was being effectively managed and properly implemented (Section M1.1).

### Plant Support

- An NCV with three examples was identified for the licensee's failure to have adequate security measures for the FFD collection site and laboratory. Another NCV was identified for the failure to protect confidential medical information. The licensee's process to protect confidential Employee Assistance Program information was determined to be adequate (Section S1.1).

## **Report Details**

### **Summary of Plant Status**

Unit 1 operated at 100% Rated Thermal Power (RTP) except for two brief power reductions. On December 11, power was reduced to approximately 80% to repair an oil leak on the 1C condensate pump. On December 21, power was reduced to approximately 88% to repair a leak in the 1A cooling tower.

Unit 2 operated at 100% Maximum Operating Power (98% RTP) through the end of the period.

## **I. Operations**

### **O1 Conduct of Operations**

#### **O1.1 General Comments (71707)**

Using Inspection Procedure 71707, the inspectors conducted frequent reviews of ongoing plant operations. In general, the conduct of operations was professional and safety-conscious. Specific events and observations are detailed in the sections below.

### **O2 Operational Status of Facilities and Equipment**

#### **O2.1 Engineered Safety Feature System Walkdowns (71707)**

The inspectors used Inspection Procedure 71707 and the licensee's Individual Plant Examination (IPE) to walk down accessible portions of the following systems:

- Diesel Generator Starting Air
- Diesel Generator Fuel Oil
- Non-Interruptible Instrument Air
- Drywell Pneumatics

The inspectors did not identify any equipment operability, material condition, or housekeeping concerns as a result of these walkdowns.

#### **O2.2 Cold Weather Checks and Freeze Protection (71707, 71714)**

The inspectors walked down the freeze protection systems identified in the licensee's Preventive Maintenance Procedure 52PM-MEL-005-0S, "Cold Weather Checks," Revision 9 Ed. 3. The inspectors did not identify any issues the licensee had not already identified and taken corrective action. In addition, the inspectors verified that the licensee was making the appropriate equipment checks when outside air temperature dropped below 40°F.

## II. Maintenance

### **M1 Conduct of Maintenance**

#### **M1.1 Observations of Instrument Calibration Activities (62707)**

The inspectors observed portions of recalibration activities for the Unit 2 "B" narrow range reactor water level transmitter, 2C32-N004B. All work observed was performed with the work package and data package in active use. The technicians were knowledgeable of their tasks and were observed to be very proficient with the use of measuring and test equipment (M&TE). The inspectors verified that calibration for the M&TE was current.

## III. Engineering

### **E4 Engineering Staff Knowledge and Performance**

#### **E4.1 Maintenance Rule Implementation (62707)**

The inspectors conducted a risk-informed, performance-based review and assessment of recent functional failures for the following systems and components:

- Stator Water Cooling System
- Main Generator
- Residual Heat Removal Service Water System
- Non-Interruptible Instrument Air System

The inspectors reviewed the completed corrective action documents for equipment failures related to each system and the associated system or component performance criteria. In addition, the inspectors interviewed system engineers and the maintenance rule coordinator regarding program implementation and various equipment failures. The inspectors verified that the failures were correctly classified. Decisions regarding the classification of systems and components and for establishing corrective actions and performance goals were made appropriately. The inspector concluded that the Maintenance Rule program was being effectively implemented.

## IV. Plant Support

### **R1 Radiological Protection and Chemistry Controls**

#### **R1.1 Tour of Radiological Protected Areas (86750)**

The inspectors reviewed survey data and observed activities in progress. Radiological surveys reviewed were well documented. Independent surveys, performed by the inspectors for selected storage areas, verified that the licensee had effectively controlled and stored solid radioactive material. All radioactive material storage areas observed were properly posted and labeled.

**R1.2 Transportation of Radioactive Materials (86750)**

The inspectors evaluated the licensee's transportation of radioactive materials programs. The inspectors observed the preparation of a shipment of radioactive spent resin and reviewed the appropriate procedures. The inspectors also reviewed the shipping papers for four shipments of radioactive material. The inspectors determined that the procedures adequately addressed the shipping requirements and the shipping papers contained the required information. The inspectors concluded that the licensee had effectively implemented a program for shipping radioactive materials.

**R2 Status of Radiation Protection and Chemistry Facilities and Equipment****R2.1 Radioactive Effluent Monitoring Instrumentation (84750)**

The inspectors reviewed the performance of several licensee radiation monitors and the quantification of selected liquid effluent samples from release pathways described in the licensee's Offsite Dose Calculation Manual (ODCM) and in the Updated Final Safety Analysis Report. The inspectors also toured the Unit 1 and Unit 2 control rooms, interviewed radwaste operators and chemistry personnel, reviewed system operating procedures, and verified the licensee met the chemistry release permit procedural and the ODCM requirements for liquid releases. The licensee had effectively maintained radwaste monitors. Based on the Annual Effluent Release Report data, the activity released from the plant in liquid effluents had remained stable over the last several years and the radiation doses resulting from those releases were a small percent of regulatory limits.

**S1 Conduct of Security and Safeguards Activities****S1.1 Fitness for Duty (FFD) Program****a. Inspection Scope (81502)**

The inspectors reviewed the licensee's access control measures to determine if the FFD collection site and laboratory were secure. Additionally, confidentiality of medical information collected through the FFD process was reviewed.

**b. Observations and Findings**

On December 9, the inspectors found that the designated FFD collection site was unlocked and unattended. Inside the FFD collection site was a refrigerator used to store medication. The inspectors examined the contents of the refrigerator and found that no FFD samples were present. However, the inspectors did find a key to the FFD laboratory. 10 CFR 26, Appendix A, Section 2.7(a)(1), states, in part, that security measures shall be in place to prevent unauthorized personnel access to the laboratory. Contrary to the above, the FFD laboratory was not secured from unauthorized personnel in that a key to the laboratory was accessible. Consistent with Section VII.B.1.a of the NRC Enforcement Policy, this violation is identified as Non-Cited Violation (NCV) 50-

321,366/99-08-01, Fitness for Duty Facility Security Measures. This violation is in the licensees corrective action program as Condition Report (CR) 9908150.

Inside the laboratory was a refrigerator used to store collected FFD samples. The inspectors examined the contents of the laboratory refrigerator and found 16 FFD samples. The inspectors noted that these FFD samples had been collected in excess of six hours. The inspectors also noted that the laboratory refrigerator could be locked; however, no lock was in place. 10 CFR 26, Appendix A, Section 2.7 (c), requires, in part, that any collected FFD samples not shipped from the testing facility within six hours shall be placed in a secured refrigeration unit. Contrary to the above, collected FFD samples were not stored in a secure refrigerator. This is an additional example of NCV 50-321,366/99-08-01.

The inspectors interviewed FFD personnel to determine if procedures adequately addressed security measures. Of the three medical personnel interviewed, all were unaware of an implemented procedure. The inspectors reviewed procedure SH-FFD-003, "Standard Operating Procedure," and procedure SH-FFD-004, "Fitness for Duty Collection Procedure," and found no formal guidance on security measures for either the collection facility or the laboratory. The licensee subsequently produced procedure SH-FFD-016, "Training and Qualification of Fitness for Duty Personnel." The inspectors reviewed this procedure and again found no formal guidance on security measures for either the collection facility or the laboratory. 10 CFR 26, Appendix A, Section 2.7(a)(1), states, in part, that security measures shall be in place to prevent unauthorized personnel access to the laboratory. 10 CFR 26 Appendix A, Section 2.4(c), states, in part, that security procedures shall provide for the collection facility to be secure. Contrary to the above, there was no procedural guidance to ensure that either the collection facility or the laboratory remained secure. This is an additional example of NCV 50-321,366/99-08-01.

Immediate corrective actions included securing the collection site and laboratory. The licensee discarded the FFD samples stored in the laboratory refrigerator and initiated recollection. Blind performance samples were also discarded and new ones ordered. The two intoxilizers were recalibrated to ensure accuracy. The Health and Medical Services Supervisor met with the site FFD staff and discussed security measures to ensure the collection site and laboratory remained secure.

The inspectors evaluated the licensee's program for the confidentiality of information collected through the FFD process with respect to the Employee Assistance Program (EAP). The inspectors reviewed Corporate Guideline 720-035, "The Employee Assistance Program," and Corporate Guideline 720-036, "Mandatory Fitness for Duty Evaluations," and found them to be acceptable. The inspectors discussed the procedures with a sampling of individuals and determined that those questioned were aware of the policy and the prohibition to disclose EAP information.

The inspectors reviewed FFD Audit 99-FFD-1 where the licensee had identified that several departments were keeping medication logbooks and that the logbooks were generally accessible. CR 9907317 and CR 9907052 documented that site departments

were notified to discontinue maintaining medication logbooks and any such medication logbooks were to be destroyed. The inspector interviewed a Health Services Specialist who verified that the medication logbooks were destroyed. On October 10, 1999, a licensee audit to validate that department supervisors understood the medical information confidentiality policy found one supervisor that was unaware of the policy. On October 29, 1999, additional direction was issued to all site departments regarding the medical information confidentiality policy. 10 CFR 26.29 states, in part, that personal information collected to comply with this part shall not be disclosed to persons other than personnel that need to have access to the information to perform assigned duties. Contrary to the above, maintaining departmental medication logbooks disclosed medical information to personnel that did not need access to confidential medical information. Consistent with Section VII.B.1.a of the NRC Enforcement Policy, this violation is identified as NCV 50-321,366/99-08-02, Confidentiality of Medical Information. This violation is in the licensee's corrective action program as CR 9907317 and CR 9907052.

c. Conclusions

An NCV with three examples was identified for the licensee's failure to have adequate security measures for the FFD collection site and laboratory. Another NCV was identified for the failure to protect confidential medical information. The licensee's process to protect confidential Employee Assistance Program information was determined to be adequate.

**S2 Status of Security Facilities and Equipment**

**S2.1 Protected Area Access Control - Personnel (81700)**

The inspectors reviewed the licensee's proposed implementation of hand geometry at personnel access points and a licensee identified discrepancy with respect to protected area badges. The inspectors reviewed procedures, implementation and transition plans, and Physical Security Plan (PSP) commitments and changes, and determined the licensee was adequately addressing the requirements specified in 10 CFR 73.

On June 16, 1999, the licensee discovered that an Owner Controlled Area (OCA) badge was inadvertently encoded to allow access to protected and vital area access. The inspector reviewed the event and determined that no unauthorized entry occurred. The probability of an authorized individual obtaining the badge as a result of this error was unlikely. Risk significance of the error is considered minimal. In response to the event, the licensee initiated CR 9904927 and performed a 100% audit of all OCA badges. As a result of this audit, the licensee identified one additional OCA badge that was improperly encoded. As a corrective action, the licensee now issues unencoded OCA badges separately from encoded protected area badges.

The inspectors concluded that the licensee's proposed plan to implement hand geometry and allow employees to take badges offsite meets the intent of 10 CFR 73. The licensee identified error regarding improperly encoded OCA badges was effectively corrected.

## S2.2 Independent Spent Fuel Storage Installation (ISFSI) (81001)

The inspectors evaluated the newly constructed ISFSI and determined that the security equipment installed met the requirements of 10 CFR 72. The security equipment interface with the security computer had not been completed. Site engineering was currently developing functional and site acceptance testing procedures.

### V. Management Meetings and Other Areas

#### X1 **Exit Meeting Summary**

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on January 5, 2000. The licensee acknowledged the findings presented. The inspectors asked the licensee if any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

### PARTIAL LIST OF PERSONS CONTACTED

Betsill, J., Assistant General Manager - Operations  
 Davis, D., Plant Administration Manager  
 Fornel, P., Performance Team Manager  
 Hammonds, J., Engineering Support Manager  
 Kirkley, W., Health Physics and Chemistry Manager  
 Lewis, J., Training and Emergency Preparedness Manager  
 Madison, D., Operations Manager  
 Moore, C., Assistant General Manager - Plant Support  
 Roberts, P., Outage and Planning Manager  
 Thompson, J., Nuclear Security Manager  
 Tipps, S., Nuclear Safety and Compliance Manager  
 Wells, P., General Manager - Nuclear Plant

### INSPECTION PROCEDURES USED

IP 62707: Maintenance Observations  
 IP 71707: Plant Operations  
 IP 81001: Independent Spent Fuel Storage Installation  
 IP 81502: Fitness for Duty Program  
 IP 81700: Physical Security Program for Power Reactors  
 IP 84750: Radioactive Waste Treatment, and Effluent and Environmental Monitoring  
 IP 86750: Solid Radioactive Waste Management and Transportation of Radioactive Materials



ITEMS OPENED, CLOSED, AND DISCUSSED

ITEM NUMBER	TYPE	DESCRIPTION
<u>Closed</u>		
50-321,366/99-08-01	NCV	Fitness for Duty Facility Security Measures (Section S1.3)
50-321,366/99-08-02	NCV	Confidentiality of Medical Information (Section S1.3)