



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
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July 18, 2006

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

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT - NRC EMERGENCY PREPAREDNESS  
INSPECTION REPORT NO. 05000321/2006013 AND 05000366/2006013

Dear Mr. Stinson:

On June 23, 2006, the US Nuclear Regulatory Commission (NRC) completed an inspection at your Edwin I. Hatch Nuclear Plant, Units 1 and 2. The enclosed inspection report documents the inspection findings, which were discussed on June 23, 2006, with Mr. Mark Ajluni 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 inspector reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, one Severity Level IV violation was identified. However, because it has been entered into your corrective action program, the NRC is treating this issue as a non-cited violation (NCV) in accordance with Section VI.A of the NRC's Enforcement Policy. If you contest this NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at Hatch Nuclear Plant.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system

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Sincerely,

/RA/

Brian R. Bonser, Chief  
Plant Support Branch 2  
Division of Reactor Safety

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

Enclosure: NRC Inspection Report No. 05000321/2006013, 05000366/2006013  
w/Attachment: Supplemental Information

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**U. S. NUCLEAR REGULATORY COMMISSION**

**REGION II**

Docket Nos: 50-321, 50-366

License Nos: DPR-57, NPF-5

Report No: 05000321/2006013 and 05000366/2006013

Licensee: Southern Nuclear Operating Company, Inc.

Facility: Edwin I. Hatch Nuclear Plant, Unit 1 and 2

Location: Birmingham, AL 35201-1295

Dates: June 19-23, 2006

Inspector: J. Kreh, Emergency Preparedness Inspector

Approved by: Brian R. Bonser, Chief  
Plant Support Branch 2  
Division of Reactor Safety

Enclosure

## SUMMARY OF FINDINGS

IR 05000321/2006-013, 05000366/2006-013; 06/19/2006 - 06/23/2006; Edwin I. Hatch Nuclear Plant, Units 1 and 2; Emergency Action Level and Emergency Plan Changes

This inspection was conducted by a Region II emergency preparedness inspector. One Severity Level IV non-cited violation (NCV) 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 may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

### A. NRC Identified and Self-Revealing Findings

Cornerstone: Emergency Preparedness

- No Color. A Severity Level IV non-cited violation was identified for failure to comply with the emergency plan change requirements of 10 CFR 50.54(q). A change involving removal from the Emergency Plan of the licensee's methodology for determining offsite Protective Action Recommendations (PAR) decreased the effectiveness of the Emergency Plan, Version 24, without prior NRC approval.

The finding was evaluated using the NRC's Enforcement Policy because licensee reductions in the effectiveness of its emergency plan impact the regulatory process. This finding is more than minor because it involved deletion from the licensee's Emergency Plan of most of the substantive information addressing emergency planning standard 10 CFR 50.47(b)(10). The finding was determined to be a Severity Level IV violation because it involved licensee failure to meet an emergency planning requirement not directly related to assessment and notification (Section 1EP4).

### B. Licensee-Identified Violations

None

## REPORT DETAILS

### 1. REACTOR SAFETY

#### Cornerstone: Emergency Preparedness

#### 1EP2 Alert and Notification System (ANS) Testing

##### a. Inspection Scope

The inspector evaluated the adequacy of licensee methods for testing the ANS in accordance with NRC Inspection Procedure 71114, Attachment 02, "Alert and Notification System Testing." The applicable planning standard 10 CFR 50.47(b)(5) and related requirements contained in Section IV.D of Appendix E to 10 CFR Part 50 were used as reference criteria. The evaluation criteria contained in NUREG-0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," Revision 1; Federal Emergency Management Agency (FEMA) Report REP-10, "Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants"; and the licensee's FEMA-approved ANS design report were also applied. This inspection activity represents one sample on a biennial cycle.

The inspector reviewed various documents which are listed in the Attachment to this report.

##### b. Findings

No findings of significance were identified.

#### 1EP3 Emergency Response Organization (ERO) Augmentation

##### a. Inspection Scope

The inspector reviewed the ERO augmentation staffing requirements and the process for notifying the ERO to ensure the readiness of key staff for responding to an event and the capability for timely facility activation. The results of the off-hour augmentation drill (telephone response only) conducted on November 4, 2004, were reviewed. The inspector examined the provisions for a backup notification system. A sample of problems identified from augmentation drills and ERO pager system tests was reviewed to assess the effectiveness of corrective actions.

The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 03, "Emergency Response Organization Augmentation." The applicable planning standard 10 CFR 50.47(b)(2) and related requirements contained in Appendix E to 10 CFR Part 50 were used as reference criteria. This inspection activity represents one sample on a biennial cycle.

The inspector reviewed various documents which are listed in the Attachment to this report.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level (EAL) and Emergency Plan Changes

a. Inspection Scope

The inspector reviewed the Emergency Plan changes for Versions 22, 23, and 24 (the latter was the version in effect at the time of the inspection). EAL modifications made in Version 22 to address NRC Bulletin 2005-02 were reviewed in detail.

The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 04, "Emergency Action Level and Emergency Plan Changes." The applicable planning standard 10 CFR 50.47(b)(4) and related requirements contained in 10 CFR 50.54(q) and Appendix E to 10 CFR Part 50 were used as reference criteria. This inspection activity represents one sample on an annual cycle.

The inspector reviewed various documents which are listed in the Attachment to this report.

b. Findings

Introduction. A Severity Level IV NCV was identified for implementing a change which decreased the effectiveness of the Emergency Plan, contrary to the requirements of 10 CFR 50.54(q). This change involved removal from the Emergency Plan of the licensee's methodology for determining offsite Protective Action Recommendations (PARs).

Description. Version 23 of the Hatch Emergency Plan contained flow charts in Tables J-1 and J-2 which delineated the methodology for developing offsite PARs as follows:

- Table J-1: Protective Action Recommendations Based on Dose Projections or Field Measurements
- Table J-2: Protective Action Recommendations Based on Plant Conditions

Tables J-1 and J-2 were deleted in their entirety in Version 24 (dated June 2006), which removed virtually all substantive information regarding PAR development from the Hatch Emergency Plan. This was done with the intention of accommodating the use of a new Southern Nuclear Company (SNC) procedure NMP-EP-109, "Protective Action Recommendations," (implemented June 1, 2006). This procedure was established for use by all three SNC nuclear sites in the development of PARs for the public during an emergency. However, procedure NMP-EP-109 was not incorporated by reference in Version 24 of the Emergency Plan. The only mention of Procedure NMP-EP-109 in the Emergency Plan is in Appendix 6, which is a listing entitled "Typical Emergency Implementing Procedures".

10 CFR 50.54(q) allows the licensee to make changes to the Emergency Plan without Commission approval as long as the changes do not decrease the effectiveness of the Emergency Plan. The inspector recognized that the licensee's intent in Version 24 of its Emergency Plan was to transition to a "common fleet" approach to PAR development through the use of a corporate procedure. 10 CFR 50.47(b)(10) requires that emergency response plans for nuclear plants have developed and have in place a range of PARs. However, the effect of deleting most of the substantive information regarding offsite PAR development from the Hatch Emergency Plan was to decrease its effectiveness, since the Plan no longer contained information addressing emergency planning standard 10 CFR 50.47(b)(10) at an appropriate level of detail.

Analysis. The inspector determined that the failure to request NRC approval of the Emergency Plan change potentially impeded the NRC's regulatory process and was therefore, in accordance with Section 2.2.e of Appendix B to NRC Manual Chapter 0609, evaluated using the guidance in Section IV of the Enforcement Policy rather than the SDP. This finding is greater than minor because it involved deletion from the licensee's Emergency Plan of the detailed description of the range of protective actions that had been developed for the public as required by planning standard 10 CFR 50.47(b)(10).

Enforcement. 10 CFR 50.54(q) requires, in part, that licensees authorized to possess and operate a nuclear power reactor shall follow and maintain in effect emergency plans which meet the standards in Section 50.47(b) and the requirements in Appendix E of this part. 10 CFR 50.54(q) also states that "The nuclear power reactor licensee may make changes to these plans without Commission approval only if the changes do not decrease the effectiveness of the plans and the plans, as changed, continue to meet the standards of 10 CFR 50.47(b) and the requirements of Appendix E to this part." Contrary to the above, in Version 24 of the Emergency Plan, the licensee deleted the PAR flow charts contained in Tables J-1 and J-2 and provided no replacement information to address planning standard 10 CFR 50.47(b)(10), thereby decreasing the effectiveness of the Plan without prior NRC approval. This failure to comply with the requirements of 10 CFR 50.54(q) was identified as a Severity Level IV violation in accordance with Supplement VIII (Emergency Preparedness) of the Enforcement Policy. The violation involved licensee failure to meet an emergency planning requirement (namely, 10 CFR 50.54(q)) not directly related to assessment and notification. Because the violation was entered into the licensee's Corrective Action Program as Condition Report (CR) 2006106574, it is being treated as a non-cited Severity Level IV violation consistent with Section VI.A of the Enforcement Policy. NCV 05000321, 05000366/2006013-01, Implementation of a Change which Decreased the Effectiveness of the Emergency Plan, Version 24.

## 1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies

### a. Inspection Scope

The inspector reviewed the corrective actions identified through the EP program to ascertain the significance of the issues and to determine whether repetitive problems



were occurring. The facility's self-assessments and audits were reviewed to assess the licensee's ability to be self-critical, thus avoiding complacency and degradation of its EP program. In addition, the inspector reviewed the licensee's self-assessments and audits to assess the completeness and effectiveness of a sample of EP-related corrective actions. Documentation of all emergency declarations since the September 2004 inspection was reviewed in detail.

The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 05, "Correction of Emergency Preparedness Weaknesses and Deficiencies." The applicable planning standard 10 CFR 50.47(b)(14) and related requirements contained in Appendix E to 10 CFR Part 50 were used as reference criteria. This inspection activity represents one sample on a biennial cycle.

The inspector reviewed various documents which are listed in the Attachment to this report.

b. Findings

No findings of significance were identified.

**4. OTHER ACTIVITIES**

4OA1 Performance Indicator (PI) Verification

a. Inspection Scope

The inspector reviewed the licensee's procedure for developing the data for the EP PIs: Drill and Exercise Performance (DEP) and ERO Drill Participation. The inspector examined data reported to the NRC for the period July 2005 - March 2006. Procedural guidance for reporting PI information and records used by the licensee to identify potential PI occurrences were also reviewed. The inspector verified the accuracy of the PI for ERO DEP through review of a sample of drill and event records. The inspector reviewed selected training records to verify the accuracy of the PI for drill participation of personnel assigned to key positions in the ERO.

The inspection was conducted in accordance with NRC Inspection Procedure 71151, "Performance Indicator Verification." The applicable planning standard 10 CFR 50.9 and NEI 99-02, "Regulatory Assessment Performance Indicator Guidelines," Revision 3, were used as reference criteria. This inspection activity represents two samples on an annual cycle.

The inspector reviewed various documents which are listed in the Attachment to this report.

b. Findings

No findings of significance were identified.

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### **Licensee Personnel**

M. Ajluni, Assistant General Manager - Plant Support  
J. Lewis, Training and Emergency Preparedness Manager  
R. Reddick, Emergency Preparedness Coordinator  
R. Musgrove, Operations Support Superintendent  
K. Underwood, Performance Analysis Supervisor

### **LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

#### **Opened and Closed**

05000321, 05000366/2006013-01	NCV	Implementation of a Change which Decreased the Effectiveness of the Emergency Plan, Version 24 (Section 1EP4)
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## LIST OF DOCUMENTS REVIEWED

### **Section 1EP2: Alert and Notification System (ANS) Testing**

#### Plans and Procedures

Section E and Appendix 3 of Hatch Emergency Plan, Version 24

#### Records and Data

2004 Annual Report of the Edwin I. Hatch Nuclear Plant EPZ Prompt Notification Program  
2005 Annual Report of the Edwin I. Hatch Nuclear Plant EPZ Prompt Notification Program  
Secondary Alarm Station Log of NOAA Weekly Tests: 01/01/2006 - 06/04/2006

### **Section 1EP3: Emergency Response Organization (ERO) Augmentation**

#### Plans and Procedures

Table B-1 (Minimum Staffing Capacity for Emergencies) and Section F of Hatch Emergency Plan, Version 24

#### Records and Data

E. I. Hatch Nuclear Plant Emergency Call List, 04/05/2006  
Documentation of Off-Hour ERO Response Drill conducted on 11/04/2004

### **Section 1EP4: Emergency Action Level (EAL) and Emergency Plan Changes**

#### Plans and Procedures

73EP-EIP-001-0, Emergency Classification and Initial Actions, Rev. 15.3  
73EP-EIP-004-0, Duties of Emergency Director, Rev. 9.2

#### Records and Data

Licensing Document Change Request (LDCR) 2005-061EP (included Applicability Determination and 10 CFR 50.54(q) Evaluation for Version 22)  
LDCR 2006-024EP (included Applicability Determination and 10 CFR 50.54(q) Evaluation for Version 23)  
LDCR 2005-060EP (included Applicability Determination and 10 CFR 50.54(q) Evaluation for Version 24)

### **Section 1EP5: Correction of Emergency Preparedness Weaknesses and Deficiencies**

#### Audits and Self-Assessments

Audit No. C-EP-2005, Quality Assurance Audit of Plants Farley, Hatch and Vogtle Offsite Emergency Preparedness Support

Audit No. C-EP-2006, Quality Assurance Audit of Plants Farley, Hatch and Vogtle Offsite  
Emergency Preparedness Support

Report No. SA04-TEP-03, Emergency Preparedness Self-Assessment: Field monitoring Team  
Activities

Report No. SA05-TEP-02, Emergency Preparedness Self-Assessment: Alert and Notification  
System

#### Records and Data

Documentation packages (scenario/time line/drill notification forms/critique report) for ERO drill  
on 08/31/2005

Documentation packages (Control Room log/event time line/event notification forms/critique  
report/Condition Reports) for Notification of Unusual Event declarations on 02/07/2005,  
10/29/2005, 05/01/2006

#### Condition Reports

CRs 2004107834, 2005101335, 2005108609, 2005109337, 2005111363, 2005111364,  
2005111365, 2006100064, 2006101513, 2006106124, 2006106574, 2006106575, 2006106576

#### **Section 40A1: Performance Indicator (PI) Verification**

#### Procedures

00AC-REG-005-0, Preparation and Reporting of NRC PI Data, Version 5.0

#### Records and Data

Documentation packages (scenario/time line/drill notification forms/critique report) for ERO drill  
on 08/31/2005

Documentation packages (Control Room log/event time line/event notification forms/critique  
report/Condition Reports) for Notification of Unusual Event declarations on 02/07/2005,  
10/29/2005, 05/01/2006

Documentation of DEP opportunities: Licensed Operator Simulator evaluations on  
various dates in August-October 2005

Records of drill and exercise participation by selected key ERO personnel, 2004-2006

**LIST OF ACRONYMS AND INITIALISMS**

ANS	Alert and Notification System
CR	Condition Report
DEP	Drill and exercise performance
EAL	Emergency Action Level
ERO	Emergency Response Organization
FEMA	Federal Emergency Management Agency
PAR	Protective Action Recommendation
PI	Performance Indicator
SDP	Significance Determination Process

(ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,  
 /RA/  
 Brian R. Bonser, Chief  
 Plant Support Branch 2  
 Division of Reactor Safety

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

Enclosure: NRC Inspection Report No. 05000321/2006013, 05000366/2006013  
 w/Attachment: Supplemental Information

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