



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

March 3, 2006

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

SUBJECT: EDWIN I. HATCH NUCLEAR PLANT, UNIT 1 AND 2 - NRC SUPPLEMENTAL
INSPECTION REPORT NO. 05000321/2006010, 05000366/2006010

Dear Mr. Sumner:

On February 2, 2006, the U.S. Nuclear Regulatory Commission (NRC) completed a supplemental inspection at your Edwin I. Hatch Nuclear Plant. The enclosed report documents the inspection results which were discussed on February 2, 2006, with Mr. D. Madison and other members of your staff.

This supplemental inspection was an examination of your problem identification, root cause analysis, extent of condition and cause determinations, and corrective actions associated with the White finding identified in the Emergency Preparedness Cornerstone. The finding involved the failure to maintain facilities and equipment to support emergency response in that the Technical Support Center (TSC) was inoperable during modification activities and could not be returned to operable status within a short period.

Based on the results of this inspection, no findings of significance were identified. We have concluded that your root cause evaluation effectively identified the primary and contributing causes. The completed and proposed corrective actions, including actions to prevent recurrence, appropriately addressed the results of your root cause evaluation. As such, the inspection objectives of Inspection Procedure 95001, "Inspection For One Or Two White Inputs In A Strategic Performance Area," have been satisfied.

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

Sincerely,

/RA: Original signed by H. Christensen for/

Victor M. McCree, Director
Division of Reactor Safety

Docket No.: 50-321, 50-366
License No.: DPR-57, NPF-5

Enclosure: (See page 2)

SNOPCO

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Enclosure: NRC Supplemental Inspection Report 05000321/2006010, 05000366/2006010
w/Attachment: Supplemental Information

cc w/encl:

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ADAMS: Yes ACCESSION NUMBER: _____

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| DATE | 3/1/2006 | 3/1/2006 | 3/3/2006 | 3/3/3006 | 6/ /2006 | 6/ /2006 | 6/ /2006 |
| E-MAIL COPY? | YES NO | YES NO | YES NO | YES NO | YES NO | YES NO | YES NO |

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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: 05000321/2006010, 05000366/2006010

Licensee: Southern Nuclear Operating Company, Inc.

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

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

Dates: January 31- February 2, 2006

Inspectors: L. Miller, Senior Emergency Preparedness Inspector
J. Kreh, Emergency Preparedness Inspector

Approved by: B. Bonser, Chief, Plant Support Branch II
Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

IR 05000321/2006010, 05000366/2006010; 01/31/2006 - 02/02/2006; Edwin I. Hatch Nuclear Plant, Unit 1 and 2; Supplemental inspection for a White finding in the Emergency Preparedness Cornerstone.

This inspection was conducted by a Senior Emergency Preparedness Inspector and an Emergency Preparedness Inspector from NRC/Region II. No findings of significance were identified. 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.

Cornerstone: Emergency Preparedness

The U.S. Nuclear Regulatory Commission (NRC) performed this supplemental inspection to assess the licensee's evaluation and corrective action associated with the inoperability of the Technical Support Center (TSC). This performance issue was characterized as having low to moderate risk significance ("White") in NRC Inspection Report (IR) 05000321/2005-003, 05000366/2005-003. During this supplemental inspection, the inspectors determined that the licensee had performed a comprehensive evaluation of the TSC after the NRC identified the TSC had been made inoperable. To evaluate this issue, the licensee used a combination of structured root cause analysis techniques including barrier analysis, and events and causal factor analysis. The inspectors determined that the licensee followed their procedural guidance for performing the root cause analysis.

The licensee's evaluation identified the primary root cause of the performance issue to be a licensee management and staff mindset concerning the acceptability of the control room to serve as the TSC during a five week planned maintenance period scheduled to be worked during a normal work day. This mindset was reflected in the 10 CFR 50.54(q) evaluation, performed on May 18, 2005, which determined there was no decrease in the effectiveness of the emergency plan. However, the root cause analysis determined that the 50.54(q) review focused on the beginning and end states and not the interim configuration of having the TSC out of service.

The licensee has taken corrective actions to ensure that any open Design Change Packages (DCPs) or Minor Design Changes (MDCs) did not impact the effectiveness of their emergency plan and therefore, require a 50.54(q) review. In addition, the licensee intends to develop a Limiting Condition of Operation (TLCO) in the Technical Requirements Manual (TRM) for the Emergency Response Facilities (ERF).

Given the licensee's acceptable performance in addressing the inoperable TSC, the White finding associated with this issue will only be considered in assessing plant performance for a total of four quarters in accordance with the guidance in IMC 0305, "Operating Reactor Assessment Program." Implementation of the licensee's corrective actions will be reviewed during a future inspection.

Report Details

01 Inspection Scope

This supplemental inspection was performed by the NRC to assess the Southern Nuclear Operating Company's evaluation and corrective actions associated with a low-to-moderate risk significant (White) finding associated with the inoperability of the TSC. The performance issues associated with this finding were previously characterized in NRC Inspection Report (IR) 05000321/2005003, 05000366/2005003 as a preliminarily White finding, and later characterized as White in the NRC Final Significance Determination Letter (IR 05000321/2005009, 05000366/2005009), dated September 19, 2005. This supplemental inspection involved a review of the licensee's problem identification, root cause analysis, and corrective actions associated with this White finding.

The inspector assessed the adequacy of the licensee's root cause analysis, determined if appropriate corrective actions were specified and scheduled commensurate with risk, and determined if the proposed actions were sufficient to prevent recurrence. This assessment included a review of the licensee's Condition Reports (CRs), root cause analysis, completed and scheduled corrective actions, procedures, additional related documents, and interviews with key plant personnel.

This supplemental inspection was conducted in accordance with the requirements of NRC Inspection Procedure (IP) 95001. Consequently, the following report details are organized by the specific inspection requirements of IP 95001, which are noted in italics.

02 Evaluation of Inspection Requirements

02.01 Problem Identification

a. *Determination of who identified the issue and under what conditions.*

On April 25, 2005, the licensee voluntarily removed the TSC from service to perform ventilation system modifications which disabled both the normal and emergency modes of operation. The modification activities were scheduled to proceed during normal working hours with a normal maintenance staff for a period of five weeks. To facilitate these modification activities, the licensee relocated the TSC to the main control room as an alternate TSC location. The licensee failed to identify the significance of allowing modification activities to remove the TSC from service and being unable to return the TSC to service within a short period. The NRC identified that the licensee failed to maintain facilities and equipment to support emergency response after the licensee submitted an event notification under the provisions of 50.72 reporting requirements, "...major loss of emergency assessment capability."

b. *Determination of how long the issue existed, and prior opportunities for identification.*

The TSC was removed from service on April 26, 2005. After several discussions between licensee and NRC staff, the licensee decided to expedite the TSC work on April 29, 2005. The TSC was returned to operational status on May 4, 2005. The Design Change Package (DCP) that removed the TSC from service was originated in 1999 to replace the plant Safety Parameter Display System (SPDS). The DCP included modifications to the TSC ventilation controls. In the weeks prior to the removal of the TSC from service, meetings / discussions were held among key licensee personnel to consider work scope, schedule, and the ability of TSC personnel to conduct their emergency activities effectively and in a non-intrusive manner, from the main control room.

c. *Determination of the plant-specific risk consequences and compliance concerns associated with the issue.*

The licensee's evaluation did not specifically document the compliance concerns associated with the issue. The inspector discussed the compliance concerns with several key licensee personnel and established that they understand the compliance concerns associated with the issue.

02.02 Root Cause and Extent of Condition Evaluation

a. *Evaluation of method(s) used to identify root cause(s) and contributing cause(s).*

To evaluate this issue, the licensee used a combination of structured root cause analysis techniques including barrier analysis, and events and causal factor analysis. The inspectors determined that the licensee followed their procedural guidance for performing a root cause analysis. The procedure required conducting interviews with key personnel and preserving evidence associated with the issue. The licensee successfully accomplished this by initiating condition reports and establishing a broad scope of action items that addressed the issue and should prevent recurrence of the issue.

b. *Level of detail of the root cause evaluation.*

The inspectors considered the scope of the root cause evaluation to be appropriate when both the root cause analysis techniques and the resulting corrective actions were considered. The licensee's evaluation identified the primary root cause of the performance issue to be a licensee management and staff mindset concerning the acceptability of the control room to serve as the TSC during a five week planned maintenance period scheduled to be worked during a normal work day. This mindset was reflected in the 10 CFR 50.54(q) evaluation performed on May 18, 2005, which determined there was no decrease in the effectiveness of the plan. The root cause analysis determined that the 50.54(q) review focused on the beginning and end states and not the interim configuration of having the TSC out of service.

- c. *Consideration of prior occurrences of the problem and knowledge of prior operating experience.*

The licensee's evaluation included a review to see if similar problems had previously been reported with the performance of 10 CFR 50.54(q) evaluations concerning removing Emergency Response Facilities (ERF) from service.

- d. *Consideration of extent of cause and extent of condition of the problem.*

The licensee's evaluation considered the potential for common cause and extent of condition associated with 10 CFR 50.54(q) determinations and their potential effect on ERFs. The licensee reviewed all open design change packages for opportunities that would affect ERFs or associated equipment. The licensee's evaluation determined that the primary root cause of the performance issue to be a licensee management and staff mindset concerning the acceptability of the control room to serve as the TSC during a five week planned maintenance period scheduled to be worked during a normal work day.

02.03 Corrective Actions

- a. *Appropriateness of corrective actions.*

The licensee took corrective actions to restore the TSC to service after prompting by the NRC. The licensee also specified corrective actions to address the root cause of the management and facility personnel mindset concerning taking ERFs out of service. The licensee has completed a review of open DCPs and determined that there were no opportunities with open DCPs or MDCs that would affect ERFs or associated equipment. The licensee has also initiated actions to establish a limiting condition for operation for ERFs in the Technical Requirements Manual. The inspectors determined that the proposed corrective actions are appropriate.

- b. *Prioritization of corrective actions.*

The licensee's corrective actions restored the TSC to operability within nine days. The inspectors reviewed the condition reports and associated action items and determined that their prioritization was appropriate.

- c. *Establishment of schedule for implementing and completing the corrective actions.*

The licensee has established condition reports and action items due dates. The inspectors reviewed the licensee's plans for accomplishing these activities and noted that the schedule for implementing and completing the corrective actions appear reasonable.

- d. *Establishment of quantitative or qualitative measures of success for determining the effectiveness of the corrective actions to prevent recurrence*

The licensee has an Action Item, AI 2005203995, that requires an Effectiveness Review for the corrective actions associated with CR 2005106981, White finding associated with the TSC. The Effectiveness Review for the corrective actions (AI 2005203995) is tentatively scheduled for September 2006.

02.04 Open Items

(Closed) VIO 05000321, 366/200503-01. Failure to Maintain Facilities and Equipment to Support Emergency Response.

Based on the satisfactory results of this supplemental inspection and the licensee's established corrective actions, this violation was determined to be sufficiently addressed to close the associated open item. Given the licensee's acceptable performance in addressing the 10 CFR 50.54(q) and 10 CFR 50.47(b) issues, the White finding associated with this issue will only be considered in assessing plant performance for a total of four quarters in accordance with the guidance in IMC 0305, "Operating Reactor Assessment Program."

03. **MANAGEMENT MEETINGS**

Exit Meeting Summary

The inspector presented the inspection results to Mr. D. Madison, Assistant General Manager, and other members of licensee management on February 2, 2006. The inspectors did not review proprietary information during the inspection.

Persons Contacted

Licensee

G. Frederick, General Manager
D. Madison, Assistant General Manager, Plant Operations
J. Lewis, Training and Emergency Preparedness Manager
R. Baker, Hatch Licensing Manager
C. Brown, Emergency Planning Coordinator
R. Reddick, Emergency Preparedness Coordinator
C. Coop, Emergency Preparedness Nuclear Specialist

NRC

M. Widmann, Chief, Reactor Projects Branch 6
D. Simpkins, Senior Resident Inspector
J. Hickey, Resident Inspector

ITEMS OPENED AND CLOSED

Opened

None

Closed

05000321, 366/200503-01 VIO Failure to Maintain Facilities and Equipment to Support
Emergency Response (Section 02.04)

Documents Reviewed

Plans and Procedures

Edwin I. Hatch Nuclear Plant Unit 1 and Unit 2 Emergency Plan, Rev. 22
73EP-EIP-063-0, Technical Support Center Activation, Rev. 8.1
10AC-MGR-027-0, Applicability Determination, Rev. 2.0
TS-002, Preparation of Applicability Determinations, Rev. 7.0
NMP-GM-002, Corrective Action Program, Rev. 4.0
NMP-GM-002-GL03, Corrective Action Program Root Cause Determination Guideline, Rev. 5.0
NMP-GM-002-GL07, Effectiveness Review Guideline, Rev. 1.0

Corrective Action Documents

Root Cause Determination for NRC White Finding on TSC being Taken Out of Service for Greater Than Seven Days (Condition Report 2005106981)
Condition Report: 2005106981, Preliminary white finding in NRC Inspection Report 2005-003
Action Item: 2005200501, Incorporate lessons learned from industry benchmarking relevant to the performance of 10CFR50.54(q) reviews into applicable site and corporate procedures.
Action Item: 2005203990, A Technical Requirements Manual Limiting Condition for Operations will be developed for Cause 3
Action Item: 2005203991, Revise TS-002 to revise the question associated with the 50.54(a) and 50.54(p) programs
Action Item: 2005203994, 10AC-MGR-027-0 and TS-002 were revised to address Causes 1 and 2
Action Item: 2005203995, Pursuant to NMP-GM-002, perform an Effectiveness Review for corrective actions associated with SL2 CR 2005106981
Action Item: 2006200118, Coordinate effort to develop NMPs for the preparation of ADs, LDCRs, 50.59s, and 72.48s, such that common processes for these work procedures will be used at all SNC locations.

Miscellaneous Documents

2005-048, Plant Review Board Meeting Minutes, 08/17/2005

Acronyms

| | |
|------|---|
| AI | Action Item |
| CRs | Condition Reports |
| DCPs | Design Change Packages |
| ERF | Emergency Response Facilities |
| IMC | Inspection Manual Chapter |
| IP | Inspection Procedures |
| IR | Inspection Report |
| TSC | Technical Support Center |
| MDCs | Minor Design Changes |
| NRC | Nuclear Regulatory Commission |
| PARs | Publicly Available Records |
| SPDS | Safety Parameter Display System |
| TLCO | Limiting Condition of Operation for the Technical Requirements Manual |
| TRM | Technical Requirements Manual |
| VIO | Violation |