



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

January 9, 2003

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 PLANT - NRC EXAMINATION REPORT  
50-321/02-301 AND 50-366/02-301**

Dear: Sumner:

During the period October 16-24, 2002, the Nuclear Regulatory Commission (NRC) administered operating examinations to employees of your company who had applied for licenses to operate the Edwin I. Hatch Point Nuclear Plant. At the conclusion of the examination, the examiners discussed the examination questions and preliminary findings with those members of your staff identified in the enclosed report. The written examination was administered by your staff on October 30, 2002.

All eleven applicants passed the operating examination, all but one SRO passed the written examination. There were six post examination written comments and one post examination operating examination comment which are identified in Enclosure 2.

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 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/**

Michael E. Ernstes, Chief  
Operator Licensing and  
Human Performance Branch  
Division of Reactor Safety

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

Enclosures: (See page 2)

- Enclosures: 1. Report Details  
2. Post Examination Comment Resolution

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NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 50-321, 50-366

License Nos.: DPR-57, NPF-5

Report Nos.: 50-321/02-301, 50-366/02-301

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

Facility: Edwin I. Hatch Nuclear Plant

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

Dates: Operating Tests - October 16-24, 2002  
Written Examination - October 30 , 2002

Examiners: R. Baldwin, Chief Examiner  
G. Laska, Operations Engineer  
L. Vick, Senior Reactor Engineer  
T. Kolb, Operations Engineer (Under Instruction)

Approved by: M. Ernstes, Chief  
Operator Licensing and Human Performance Branch  
Division of Reactor Safety

## SUMMARY OF FINDINGS

ER 05000321-2002-301, ER 05000366-2002-301, on 10/16-24/2002, Southern Nuclear Operating Company, Inc., Edwin I. Hatch Nuclear Plant, Units 1 and 2, licensed operator examinations.

The NRC examiners conducted operator licensing initial examinations in accordance with the guidance of Examiner Standards, NUREG-1021, Revision 8, Supplement 1. This examination implemented the operator licensing requirements of 10 CFR §55.41, §55.43, and §55.45.

The NRC administered the operating tests during the period October 16- 24, 2002. Members of the Edwin I. Hatch Nuclear Plant training staff administered the written examination on October 30, 2002. The operator licensing initial written examinations were developed by the NRC. The operating tests were developed by the Edwin I. Hatch staff from an outline submitted by the NRC. All applicants, one Reactor Operator (RO) and ten Senior Reactor Operators (SRO) passed the operating examination. All applicants except one SRO passed the written examination. Those applicants that passed both examinations were issued operator licenses commensurate with the level of examination administered.

No significant issues were identified.

## Report Details

### 4. OTHER ACTIVITIES (OA)

#### **4OA5** Operator Licensing Initial Examinations

##### a. Inspection Scope

The examiners developed the written and operating examinations in accordance with the guidelines specified in NUREG-1021, Revision 8, Supplement 1.

The examiners reviewed the licensee's examination security measures while preparing and administering the examinations to ensure examination security and integrity complied with 10 CFR 55.49, Integrity of examinations and tests.

The examiners evaluated one RO and ten SRO applicants who were being assessed under the guidelines specified in NUREG-1021. They administered the operating tests during the period October 16-24, 2002. Members of the Edwin I. Hatch Nuclear Plant training staff administered the written examination on October 30, 2002. The evaluations of the applicants and review of documentation were performed to determine if the applicants, who applied for licenses to operate the Edwin I. Hatch Nuclear Plant, met requirements specified in 10 CFR Part 55.

##### b. Findings

No findings of significance were identified.

The licensee submitted six post examination comments concerning the written examination and one post examination operating examination comment (ADAMS Accession Number ML 023290002). The RO and SRO written examinations and answer keys may be accessed in the ADAMS system (ADAMS Accession Number ML02329003 and ML02329006).

#### **4OA6** Meetings

##### Exit Meeting Summary

On October 25, 2002, the Chief Examiner discussed generic applicant performance and examination development issues with members of licensee management.

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

PARTIAL LIST OF PERSONS CONTACTED

Licensee

J. Betsill, Assistant, General Manager-Support  
R. Diedrickson, Manager, Operations  
S. Grantham, Supervisor, Operations Training  
G. Johnson, Supervisor, Safety Audit & Engineering Review  
J. Lewis, Manager, Training & EP  
S. Tipps, Manager, Nuclear Safety & Compliance  
P. Wells, General Manager

NRC

J. Munday, Senior Resident Inspector  
N. Garrett, Resident Inspector

## Hatch Exam 2002-301

### Facility Comments and NRC Resolutions

**Question:** #7, SRO Exam

**Comment:** The licensee recommends accepting answer B as a correct answer in addition to the key answer D. Supporting documentation was submitted, Hatch Licensee Event Report (LER) 2002-001, in which the E. I. Hatch Nuclear Safety and Compliance department determined that HPCI was declared INOPERABLE with the vacuum breakers isolated.

**Resolution:** Recommendation partially accepted. The licensee provided LER stated that the HPCI System is rendered INOPERABLE with the HPCI Exhaust Line Vacuum Breaker isolated. This LER is considered to represent the licensee's official determination of the system's OPERABILITY concerning the isolation of these valves. Therefore, answer D which declared the HPCI system to OPERABLE under these conditions will not be considered as a correct response.

The answer key will be changed to reflect that B is the only correct answer.

**Question:** #15, SRO Exam  
#21, RO Exam

**Comment:** The licensee recommends deleting this question due to not having a correct answer. The APRM UPSC TRIP/INOP SYS B alarm was replaced with APRM/OPRM TRIP and only a ROD OUT BLOCK will be initiated.

**Resolution:** Recommendation accepted. The alarm identified in the answer no longer exists. The answer should have identified that the ROD OUT BLOCK annunciator is in alarm. The reference material provided to develop the examination was not updated in this area.

The answer key will be changed to reflect the deletion of this question.

**Question:** #57, SRO Exam  
#66, RO Exam

**Comment:** The licensee recommends deleting this question in that it does not meet the intent of the K/A. The licensee contends that the question does not test the knowledge of the reasons for a scram but it tests the reason for two steps in a procedure to provide a Reactor scram.

**Resolution:** Recommendation not accepted.

The question was developed from K/A 295016 AK 3.01 which is:

“Knowledge of the reasons for the following responses as they apply to control room abandonment: Reactor scram.”

The question asks why the procedure also provides additional methods for scrambling the reactor (provided in the stem) when the control room is being abandoned. The distractors provide the governing document where this requirement is identified. In this situation the FSAR requires that the ability for prompt hot shutdown of the reactor from locations outside the control room must be maintained.

The answer key will remain unchanged.

**Question:** #66, SRO Exam  
#74, RO Exam

**Comment:** The facility recommends this question be deleted since it exceeds the learning objective and the bounds of the K/A by testing the number of valid inputs for SPDS indication.

**Resolution:** Recommendation not accepted.

The question was developed from K/A 295026 EK 2.04 which is:

“Knowledge of the interrelationship between suppression pool high water temperature and the following: SPDS.”

The question stem states the average Suppression Pool temperature is 102° F. and identifies how many signals are operable for each group. An SPDS display will turn Yellow if there are less than two inputs from any group. The number of operable readings per group would allow the operator to determine this condition was not met. The stem indicates that each group has at least four operable signals. Since there was only one inoperable signal in two of the groups, the question did not test the specific logic required for an operable signal (2/5) but the applicant only needed to recognize that you can have one invalid signal and still have a valid SPDS indication. The question was a valid test of the K/A.

The answer key will remain unchanged.

**Question:** #72, SRO Exam  
#78 RO Exam

**Comment:** The facility recommended accepting distractor D as an additional correct answer. Since a primary system discharging into secondary containment would be considered a substantial degradation. Also, performing an Emergency Depressurization places the plant in the safest possible condition as quickly as possible since the 100° F cooldown rate can be exceeded. Additionally, the

licensee contends that the question is not within the bounds of the K/A, but does not request it be deleted as in previous contested questions.

**Resolution:** Recommendation accepted. The fact that the primary system is causing two areas within Secondary Containment to exceed maximum safe operating temperatures implies the leak is substantial. While distractor D is a true statement it is not the reason for emergency depressurization based on lesson plan material. Since the stem of the question did not clearly identify where the basis for this question came from an additional answer D will be also allowed.

The K/A states "Knowledge of the reasons for the following responses as they apply to high secondary containment area temperature: Isolating affected systems." The NRC maintains the question meets the K/A due to the fact that it addresses the reason for emergency depressurization if the affected system cannot be isolated. If the system could be isolated this would not be an issue.

The answer key will be changed to reflect that answer D will be allowed as an additional correct answer.

**Question:** #98, SRO Exam  
#99, RO Exam

**Comment:** The question requires the applicant to determine how the Shift Supervisor maintains communications with the Fire Brigade from the main control room. The facility recommends this question be deleted since the radio system has been upgraded per DCR 01-004 and therefore has no correct answer.

**Resolution:** Recommendation accepted. Since a new system has been installed there is no correct answer. The reference material provided for examination development was not updated in this area.

The answer key will be changed to reflect the deletion of this question.

**Question:** #53, SRO Exam  
#54, SRO Exam

**Comment:** The licensee contends that an applicant while transposing answers for the above two questions the applicant marked "E" for the answers. The licensee contends that the applicant intended to answer "D" for the above questions. The licensee provided a copy of the applicants examination where the applicant circled "D" for these two questions. The licensee recommends amending the applicants answer sheet to reflect "D" for both questions.

**Resolution:** Recommendation not accepted. Since the applicant elected to place his answers on the examination in stead of the answer sheet directly, the applicant is responsible for ensuring accuracy when transcribing answers from the

examination to the answer sheet. NUREG-1021, Revision 8, Supplement 1, Appendix E, Part B, Step 6 provides guidance for marking the answer sheets. Once an applicant's answer sheet is handed in to the proctor, the examination responses are considered final, no changes can be made to the answer sheet after that event. Handing in the examination signifies the completion of the examination.

### **JPM Admin A.2 (SRO Only)**

**Comment:** The JPM required the individual to review a surveillance for the Scram Discharge Volume Isolation Valves in which 3 of the valves had stroke times outside the Acceptance Criteria times. Two of the valves exceeded the Tech Spec maximum stroke time of 60 seconds and one of the valves only exceeded the surveillance Acceptance Criteria of 56 seconds but was within the Technical Specifications time of 60 seconds. The facility recommends accepting the actions for all 3 valves being inoperable by Tech Specs and also accepting the Tech Spec actions for only 2 of the valves being Tech Spec inoperable.

**Resolution:** Recommendation not accepted. The facility states that "Tested components which do NOT meet the criteria specified in the surveillance procedure are considered inoperable." A discussion with the Operations Manager and Licensing Manager at the time the JPM was administered resulted in the same conclusion. The NRC will grade the JPM as it was originally intended. The 3 valves that did not meet the acceptance criteria of the surveillance are considered inoperable. No change to the answer key will be made.