

November 16, 1999

Mr. Harold W. Keiser  
President and Chief Nuclear Officer  
PSEG Nuclear LLC  
Post Office Box 236  
Hancocks Bridge, NJ 08038

SUBJECT: HOPE CREEK NUCLEAR GENERATING STATION SENIOR REACTOR  
OPERATOR INITIAL EXAMINATION REPORT 50-354/99-301

Dear Mr. Keiser:

This report transmits the results of the subject NRC written retake operator licensing examination administered by your staff on October 13, 1999 at your facility. This examination addressed areas important to public health and safety and was developed and administered using the guidelines of NUREG-1021, Interim Revision 8, "Operator Licensing Examination Standards for Power Reactors". Based on the results of the examination, the Senior Reactor Operator (SRO) applicant passed the written retake examination. The examination results were provided to Mr. D. Jackson and another member of your staff via a telephone call on October 14, 1999.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be placed in the NRC Public Document Room.

No reply to this letter is required, but should you have any questions regarding this examination, please contact me at 610-337-5183, or by E-mail at [RJC@NRC.GOV](mailto:RJC@NRC.GOV).

Sincerely,

**ORIGINAL SIGNED BY:**

Richard J. Conte, Chief  
Human Performance and  
Emergency Preparedness Branch  
Division of Reactor Safety

Docket Nos. 50-354

Enclosure: Initial Examination Report No. 50-354/99-301 w/Attachment 1

H. Keiser

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cc w/encl; w/Attachment 1:

J. McMahon, Director - Nuclear Training

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L. Storz, Senior Vice President - Nuclear Operations

E. Simpson, Senior Vice President and Chief Administrative Officer

M. Bezilla, Vice President - Nuclear Operations

D. Garchow, Vice President - Technical Support

M. Trum, Vice President - Maintenance

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E. Salowitz, Director - Nuclear Business Support

G. Salamon, Manager - Licensing

A. F. Kirby, III, External Operations - Nuclear, Delmarva Power & Light Co.

R. Kankus, Joint Owner Affairs

A. Tapert, Program Administrator

J. J. Keenan, Esquire

Consumer Advocate, Office of Consumer Advocate

W. Conklin, Public Safety Consultant, Lower Alloways Creek Township

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R. Fisher

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DATE	10/ /99		10/ /99		10/ /99		04/ /00		04/ /00

U. S. NUCLEAR REGULATORY COMMISSION

REGION 1

Docket Nos: 50-354

Report Nos: 50-354/99-301

License Nos: NPF-57

Licensee: Public Service Electric and Gas Company

Facility: Hope Creek Nuclear Generating Station

Location: Hancocks Bridge, New Jersey

Dates: October 13, 1999 (Facility Administered Written Examination)  
October 13-14, 1999 (Written Examination Grading)

Chief Examiner: Larry Briggs, Senior Operations Engineer

Examiners: John G. Caruso, Operations Engineer

Approved by: Richard J. Conte, Chief  
Human Performance and Emergency Preparedness Branch  
Division of Reactor Safety

## SUMMARY OF FINDINGS

### Hope Creek Generating Station NRC Examination Report 50-354/99-301

Findings were assessed according to potential risk significance and were assigned colors of *green, white, yellow, or red*. The inspection found only *non-colored* findings. *Green* findings, while not necessarily desirable, would have represented little risk to safety. *White* findings would have indicated issues with some increased risk to safety and which may have required additional NRC inspections. *Yellow* findings would have indicated more serious issues with higher potential risk to safety and would have required the NRC to take additional actions. *Red* findings would have represented an unacceptable loss of margin to safety and would have resulted in the NRC taking significant actions that could have included ordering the plant to shut down. The findings, considered in total with other inspection findings and performance indicators, will be used to determine overall plant performance.

!      There were no findings.

## Report Details

### 4. OTHER ACTIVITIES (OA)

#### 4OA4 Operator Training and Qualifications

##### Senior Reactor Operator Initial Written Retake Exam

###### a. Scope

The NRC Chief examiner reviewed the written retake initial examination developed by the NRC staff to ensure that the examination was prepared and developed in accordance with the guidelines of the "Operator Licensing Examination Standards for Power Reactors" (NUREG-1021, Interim Revision 8). The exam review was conducted by telephone with a Hope Creek representative after the licensee had several days in which to conduct a detailed review and validation of the proposed exam. On October 13, 1999, the written exam was administered by the facility's training organization. Grading was completed on October 14, 1999.

###### b. Observations and Findings

###### .1 Grading and Results

One instant SRO applicant was administered an initial written licensing exam. The applicant successfully passed the written retake examination.

There were no facility post-examination comments.

###### .2 Examination Preparation and Quality

The written retake exam was developed by the NRC staff using the guidelines of the examination standards. The NRC exam author consulted with designated points of contact from the Hope Creek Licensed Operator Training staff during the exam development phase as needed to clarify technical as well as other plant specific details.

Hope Creek subsequently reviewed and validated the proposed exam. Some editorial/enhancement changes and/or additions to the proposed exam were requested by the licensee. Most of these comments involved minor non-technical changes that did not affect question acceptability but were made to further enhance clarity and readability. All licensee individuals consulted during development and review as well as those involved with administration of the exam signed onto a security agreement.

###### .3 Written Test Administration and Performance

The facility training department performed an analysis of questions missed on the written exam for individual weaknesses. There were six questions that were missed by the applicant. Discussions with the licensee indicate that these questions' subject areas will be discussed with the applicant prior to assumption of any licensed duties. As a result of the licensee's analysis, all six of these questions were determined to be valid and no post-exam changes or comments were requested. The licensee's action was determined to be acceptable.

#### 4 Miscellaneous Activities

The eligibility requirements for the senior reactor operator (SRO) applicant was reviewed and determined to be met.

Due to problems the licensee experienced in developing the February 1998 and December 1998 NRC exams (discussed in NRC Initial Examination Report 50-354/98-302, dated October 13, 1999) and based on a verbal commitment made during a management meeting held between the NRC and Hope Creek representatives on March 22, 1999, the NRC staff evaluated the Remediation Audit exam developed by Hope Creek and administered on September 22, 1999. The intent of the staff's evaluation was to determine if the Hope Creek Licensed Operator Training staff had improved in the area of developing an NRC initial operator license written exam that met NRC examination standards. The staff concluded that the overall quality of the Reactor Operator (RO) audit exam reflected an improvement in the ability of the licensee to develop an NRC type examination. However, 12 of the 25 questions that were developed to specifically test SRO license level knowledge were system questions written at an RO knowledge level.

#### 4OA5 Exit Meeting Summary

On October 14, 1999, the Chief Human Performance and Emergency Preparedness Branch, Division of Reactor Safety provided exam results to Hope Creek training management representatives via telephone.

The Chief Human Performance and Emergency Preparedness Branch also expressed appreciation for the cooperation and assistance that was provided during the preparation of the exam by the licensee's training representatives/points of contact.

#### Attachments:

1. SRO Written Exam w/Answer Key

PARTIAL LIST OF PERSONS CONTACTED

FACILITY

D. Jackson	Nuclear Operations Training Manager
A. Faulkner	Operations/Training Representative
H. Hanson	Licensed Operator Training Supervisor
B. Havens	Licensed Operator Requalification Program Lead

NRC

L. Briggs	Senior Operations Engineer
J. Caruso	Operations Engineer



**Attachment 1**

**SRO WRITTEN EXAM W/ANSWER KEY**