



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415**

October 8, 2013

Mr. Thomas P. Joyce  
President and Chief Nuclear Officer  
PSEG Nuclear LLC  
P. O. Box 236  
Hancocks Bridge, NJ 08038

**SUBJECT: HOPE CREEK GENERATING STATION, UNIT 1 - INITIAL OPERATOR  
LICENSING EXAMINATION REPORT 05000354/2013301**

Dear Mr. Joyce:

On August 27, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed an examination at Hope Creek. The enclosed report documents the examination findings, which were discussed on September 18, 2013, with Mr. Thomas Fowler, Hope Creek Operations Training Manager, and other members of your staff.

The examination included the evaluation of three applicants for reactor operator licenses, three applicants for instant senior operator licenses, and one applicant for an upgrade senior operator license. The NRC developed the written and operating examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1. The license examiners determined that all applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses were issued on September 18, 2013.

No findings were identified during this examination.

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 Agencywide Document Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams/web-based.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Donald E. Jackson, Chief  
Operations Branch  
Division of Reactor Safety

Enclosure:  
NRC Initial Operator Licensing Examination Report 05000354/2013301  
w/Attachment

T. Joyce

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**EXAMINATION REPORT**

**U.S. NUCLEAR REGULATORY COMMISSION  
REGION I**

Docket: 50-354

License: NPF-57

Report : 05000354/2013301

Licensee: PSEG Nuclear LLC

Facility: Hope Creek Generating Station, Unit 1

Location: P. O. Box 236  
Hancocks Bridge, NJ 08038

Dates: August 19-23, 2013 (Operating Test Administration)  
August 27, 2013 (Written Examination Administration)  
September 3, 2013 (Facility Submitted Post Exam Package)  
August 23 - September 9, 2013 (NRC Examination Grading)  
September 16, 2013 (Licenses Issued)

Examiners: T. Fish, Chief Examiner, Operations Branch  
T. Hedigan, Operations Engineer  
C. Newport, Operations Engineer  
C. Lally, Operations Engineer

Approved By: Donald E. Jackson, Chief  
Operations Branch  
Division of Reactor Safety

## **SUMMARY OF FINDINGS**

ER 05000354/2013301; August 19-27, 2013; Hope Creek Generating Station, Unit 1, Initial Operator Licensing Examination Report.

NRC examiners evaluated the competency of three applicants for reactor operator licenses, three applicants for instant senior operator licenses, and one applicant for an upgrade senior operator license at the Hope Creek facility. The NRC developed the examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1. The written examination was administered by the facility on August 27, 2013. NRC examiners administered the operating tests August 19-23, 2013. The license examiners determined that all applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued.

### **Reactor Safety**

No findings were identified.

## REPORT DETAILS

### 4. OTHER ACTIVITIES (OA)

#### 4OA5 Other Activities (Initial Operator License Examination)

##### .1 License Applications

###### a. Examination Scope

The chief examiner reviewed all seven license applications submitted by the licensee to ensure the applications reflected that each applicant satisfied relevant license eligibility requirements. The applications were submitted on NRC Form 398, "Personal Qualification Statement," and NRC Form 396, "Certification of Medical Examination by Facility Licensee." The chief examiner also audited four of the license applications in detail to confirm that they accurately reflected the subject applicant's qualifications. This audit focused on each applicant's experience and on-the-job training, including control manipulations that provided significant reactivity changes.

###### b. Findings

No findings were identified.

##### .2 Operator Knowledge and Performance

###### a. Examination Scope

On August 27, 2013, the licensee proctored the administration of the written examinations to all seven applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on September 3, 2013.

The NRC examination team administered the various portions of the operating examination to all applicants August 19-23, 2013. The applicants for reactor operator licenses participated in three dynamic simulator scenarios, in a control room and facilities walkthrough test consisting of eleven system tasks, and an administrative test consisting of four administrative tasks. The applicants seeking an instant senior operator license participated in at least two dynamic simulator scenarios, a control room and facilities walkthrough test consisting of ten system tasks, and an administrative test consisting of five administrative tasks. The applicant for an upgrade senior operator license participated in one dynamic simulator scenario, a control room and facilities walkthrough test consisting of five system tasks, and an administrative test consisting of five administrative tasks.

b. Findings

All applicants passed all parts of the examination. For the written examinations, the reactor operator applicants' average score was 90.08 percent and ranged from 83.78 to 93.24 percent; the senior operator applicants' average score was 88.00 percent and ranged from 81.63 to 91.83 percent. The written exam questions may be accessed in the ADAMS system under the accession numbers noted in Attachment 1. In accordance with current NRC policy, the release of this written examination in ADAMS to the public will be delayed for two years.

Chapter ES-403 and Form ES-403-1 of NUREG 1021 require the licensee to analyze the validity of any written examination questions that were missed by half or more of the applicants. The licensee conducted this performance analysis and submitted it to the chief examiner. The licensee also submitted post-examination comments related to four questions. The post-exam comments and NRC resolution of the comments may be accessed in the ADAMS system under the accession number noted in Attachment 1.

**.3 Initial Licensing Examination Development**

a. Examination Scope

The NRC developed the examinations in accordance with NUREG-1021, Revision 9, Supplement 1. All licensee facility training and operations personnel involved in examination validation were listed on a security agreement. The NRC conducted validation visits to the site the weeks of May 20, June 24, and July 22, 2013.

b. Findings

The NRC examiners incorporated revisions to the written and operating exams based on technical recommendations from facility operations and training staff.

No findings were identified.

**.4 Simulation Facility Performance**

a. Examination Scope

The examiners observed simulator performance with regard to plant fidelity during the examination validation and administration.

b. Findings

No findings were identified.

**.5 Examination Security**

a. Examination Scope

The examiners reviewed examination security during the onsite preparation weeks and examination administration week for compliance with NUREG-1021 requirements. Plans for simulator security and applicant control were reviewed and discussed with licensee personnel.

b. Findings

No findings were identified.

**4OA6 Meetings, including Exit**

The NRC provided examination results to Mr. Thomas Fowler, Hope Creek Operations Training Manager, and other members of the licensee's management staff on September 18, 2013. The licensee acknowledged the findings presented.

The licensee did not identify any information or materials used during the examination as proprietary.

**ATTACHMENT: SUPPLEMENTAL INFORMATION**

Enclosure

**ATTACHMENT**

**SUPPLEMENTAL INFORMATION**

**KEY POINTS OF CONTACT**

Licensee Personnel

T. Fowler, Operations Training Manager  
S. Dennis, Exam Support  
D. Rein, Exam Support

NRC Personnel

D. Jackson, Chief, Operator Licensing Branch

**ITEMS OPENED, CLOSED, AND DISCUSSED**

NONE

**ADAMS DOCUMENTS REFERENCED**

Accession No. ML13267A389	FINAL-Written Exam (Note: In accordance with current NRC policy, the release of this written examination in ADAMS to the public will be delayed for two years.)
Accession No. ML13267A422	FINAL-Operating Exam
Accession No. ML13280A341	HC Post-Exam Comments and NRC Resolution of Post-Exam Comments