



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION I  
2100 RENAISSANCE BLVD., SUITE 100  
KING OF PRUSSIA, PA 19406-2713

October 25, 2016

Mr. Peter P. Sena, III  
President and Chief Nuclear Officer  
PSEG Nuclear LLC – N09  
P. O. Box 236  
Hancocks Bridge, NJ 08038

SUBJECT: HOPE CREEK GENERATING STATION, UNIT 1 - NRC INITIAL  
OPERATOR LICENSING EXAMINATION REPORT 05000354/2016301

Dear Mr. Sena:

On August 31, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed an examination at Hope Creek Generating Station. The enclosed examination report documents the examination results, which were discussed on September 27, 2016, with Mr. Robert Boesch, Training Manager, and other members of your staff.

The examination included the evaluation of three applicants for reactor operator licenses, six applicants for instant senior reactor operator licenses, and one applicant for an upgrade senior reactor operator license. The NRC developed the written and operating examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 10. The license examiners determined that all ten applicants satisfied the requirements of Title 10 of the *Code of Federal Regulation* (10 CFR) Part 55, and the appropriate licenses were issued on September 27, 2016.

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 Agencywide Documents Access Management System (ADAMS). ADAMS is accessible from the NRC website <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

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

Docket No.: 50-354  
License No.: NPF-57

Enclosure: Examination Report 05000354/2016301  
w/Attachment: Supplementary Information

cc w/encl: Distribution via ListServ

Mr. Peter P. Sena, III  
 President and Chief Nuclear Officer  
 PSEG Nuclear LLC – N09  
 P. O. Box 236  
 Hancocks Bridge, NJ 08038

SUBJECT: HOPE CREEK GENERATING STATION, UNIT 1 - NRC INITIAL  
 OPERATOR LICENSING EXAMINATION REPORT 05000354/2016301

Dear Mr. Sena:

On August 31, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed an examination at Hope Creek Generating Station. The enclosed examination report documents the examination results, which were discussed on September 27, 2016, with Mr. Robert Boesch, Training Manager, and other members of your staff.

The examination included the evaluation of three applicants for reactor operator licenses, six applicants for instant senior reactor operator licenses, and one applicant for an upgrade senior reactor operator license. The NRC developed the written and operating examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 10. The license examiners determined that all ten applicants satisfied the requirements of Title 10 of the *Code of Federal Regulation* (10 CFR) Part 55, and the appropriate licenses were issued on September 27, 2016.

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 Agencywide Documents Access Management System (ADAMS). ADAMS is accessible from the NRC website <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

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

Docket No.: 50-354  
 License No.: NPF-57

Enclosure: Examination Report 05000354/2016301  
 w/Attachment: Supplementary Information

cc w/encl: Distribution via ListServ

**DISTRIBUTION w/encl:**

DDorman, RA	FBower, DRP	Cott, DRP, AA
DLew, DRA	RBarkley, DRP	JBowen, RI, OEDO
MScott, DRP	MDraxton, DRP	RidsNrrPMHopeCreek Res
DPelton, DRP	RVadella, DRP	RidsNrrDorLpl1-2 Res
RLorson, DRS	JHawkins, DRP, SRI	ROPReports Res
JYerokun, DRS	SHaney, DRP, RI	

DOCUMENT NAME: G:\DRS\Operations Branch\FISH\Exam 16- HC Aug (U01925)(NRC)\EXAM REPORT.docx  
 ADAMS PKG: ML15308A608 ADAMS ACCESSION NO.: ML16300A168

<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available	
OFFICE	RI/DRS/OB	RI/DRS/OB			
NAME	TFish/dej for	DEJackson/dej			
DATE	10/25/2016	10/25/2016			

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

Docket: 50-354

License: NPF-57

Report : 05000354/2016301

Licensee: PSEG Nuclear LLC

Facility: Hope Creek, Unit 1

Location: Hancocks Bridge, NJ 08038

Dates: August 22-26, 2016 (Operating Test Administration)  
August 31, 2016 (Written Examination Administration)  
September 7, 2016 (Licensee Submitted Post Exam Package)  
August 28 – September 19, 2016 (NRC Examination Grading)  
September 27, 2016 (Licenses Issued)

Examiners: T. Fish, Chief Examiner  
J. D'Antonio, Senior Operations Engineer  
J. DeMarshall, Senior Operations Engineer  
T. Hedigan, Operations Engineer  
T. Setzer, Senior Project Engineer  
N. Embert, Operations Engineer

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

## SUMMARY

ER 05000354/2016301; August 22-26, 2016 and August 31, 2016; Hope Creek Generating Station, Unit 1; Initial Operator Licensing Examination Report.

Six NRC examiners evaluated the competency of three applicants for reactor operator licenses, six applicants for instant senior reactor operator licenses, and one applicant for an upgrade senior reactor operator license. The NRC developed the written and operating examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 10. The facility administered the written examination August 31, 2016. NRC examiners administered the operating tests August 22-26, 2016. The NRC examiners determined that all 10 applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued.

No findings were identified.

## REPORT DETAILS

## 4. OTHER ACTIVITIES (OA)

4OA5 Other Activities - Initial Operator License Examination.1 License Applicationsa. Scope

The chief examiner reviewed all 10 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 five license applications in detail to confirm that they accurately reflected the subject applicant's qualifications. This audit focused on the 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 Performancea. Examination Scope

On August 31, 2016, the licensee proctored the administration of the written examinations to all 10 applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on September 7, 2016.

The NRC examination team administered the various portions of the operating examination to all applicants August 22-26, 2016. The applicants for reactor operator licenses participated in at least two dynamic simulator scenarios, in a control room and facilities walkthrough test consisting of 11 system tasks, and an administrative test consisting of four administrative tasks. The applicants seeking an instant senior reactor operator license participated in at least two dynamic simulator scenarios, a control room and facilities walkthrough test consisting of 10 system tasks, and an administrative test consisting of five administrative tasks. The applicant for an upgrade senior reactor operator license participated in two dynamic simulator scenarios, 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 test. For the written examinations, the reactor operator applicants' average score was 89.18 percent and ranged from 86.48 to 94.59 percent. The senior operator applicants' average score was 91.33 percent and ranged from 86.86 to 95.96 percent.

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 analysis and submitted the analysis to the chief examiner. The analysis recommended that one of the questions (Exam question #73) be deleted from the exam. The NRC reviewed the facility's post-exam comment and accepted facility's recommendation for question #73. The question was deleted from both the reactor operator and senior reactor operator exams. The text of the entire written examination and the licensee's post-examination comment with the NRC resolution may be accessed in the ADAMS system under the accession numbers noted in the Attachment 1. In accordance with current NRC policy the release of the examination will be delayed for 2 years.

.3 Initial Licensing Examination Development

a. Examination Scope

The NRC developed the examinations in accordance with NUREG-1021, Revision 10. All licensee facility training and operations staff involved in examination preparation and validation were listed on a security agreement. The NRC conducted an onsite validation of the operating examinations and incorporated facility training staff comments during the week of July 18, 2016.

b. Findings

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 for examination development and during both the onsite preparation week and examination administration week for compliance with NUREG-1021, Revision 10 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 chief examiner presented the examination results to Mr. Robert Boesch, Training Manager, and other members of the licensee's management staff on September 27, 2016. The licensee acknowledged the findings presented.

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

ATTACHMENTS:

SUPPLEMENTARY INFORMATION

**SUPPLEMENTARY INFORMATION**

**KEY POINTS OF CONTACT**

Licensee Personnel

R. Boesch, Training Manager  
M. Shaffer, Operations Training Supervisor  
S. Dennis, Facility Exam Team  
D. Rein, Facility Exam Team

**ITEMS OPENED, CLOSED, AND DISCUSSED**

NONE

**ADAMS DOCUMENTS REFERENCED**

Accession No. ML16295A056 – 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 2 years.)

Accession No. ML16295A057 – FINAL-Operating Exam

Accession No. ML16295A055 – FINAL-Post Exam Comment and NRC Resolution