



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION I  
2100 RENAISSANCE BOULEVARD, SUITE 100  
KING OF PRUSSIA, PA 19406-2713

March 22, 2018

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

SUBJECT: SALEM NUCLEAR GENERATING STATION STATION UNITS 1 AND 2 – INITIAL  
OPERATOR LICENSING EXAMINATION REPORT 05000272/2018301;  
05000311/2018301

Dear Mr. Sena:

On January 18, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an examination at the Salem Nuclear Generating Station Units 1 and 2. The enclosed examination report documents the examination results, which were discussed with you and members of your staff on February 15, 2018.

The examination included the evaluation of one applicant for a reactor operator license, three applicants for senior reactor operator licenses, and one applicant for an upgrade senior reactor operator license. The written and operating examinations were developed using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 11. The license examiners determined that all of the five applicants satisfied the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 55, and the appropriate licenses were issued on February 15, 2018.

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's 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

P. Sena

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Docket Nos. 50-272 and 50-311  
License Nos. DPR-70 and DPR-75

Enclosure:  
Examination Report 05000272 and 311/2018301  
w/Attachment: Supplementary Information

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

Dockets Nos. 50-272; 50-311

License Nos. DPR-70; DPR-75

Report No. 05000272/2018301; 05000311/2018301

Licensee: PSEG Nuclear LLC

Enterprise Identifier: I – 2018 – 301 – 013

Facility: Salem Nuclear Generating Station, Units 1 and 2

Location: Hancocks Bridge, NJ 08038

Dates: January 22-25, 2018 (Operating Test Administration)  
January 29, 2018 (Written Examination Administration)  
February 8, 2018 (Licensee Submitted Post Exam Package)  
February 15, 2018 (NRC Examination Grading)  
February 15, 2018 (Licenses Issued)

Examiners: J. D'Antonio, Chief Examiner, Operations Branch  
P. Presby, Senior Operations Engineer  
D. Silk, Senior Operations Engineer

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

Enclosure

## **SUMMARY**

ER 05000272 and 311/2018301; 1/22/2018 - 2/15/ 2018; Salem Nuclear Generating Station, Units 1 and 2, Initial Operator Licensing Examination Report.

Three NRC examiners evaluated the competency of one applicant a reactor operator license, three applicants for instant senior reactor operator licenses, and one applicant for an upgrade senior reactor operator license at Salem Units 1 and 2. The facility developed the examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 11.

The written examination was administered by the facility on January 29, 2018. NRC examiners administered the operating tests on January 22 - 25, 2018. The NRC examiners determined that all 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 Applications

###### a. Scope

The examiners reviewed all five 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 examiners also audited two of the 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 Performance

###### a. Examination Scope

On January 29, 2018, the licensee proctored the administration of the written examinations to all five applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on February 8, 2018.

The NRC examination team administered the various portions of the operating examination to all five applicants on January 22 - 25, 2018. The one applicant for a reactor operator license participated in 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 three applicants seeking an instant senior reactor operator license participated in 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 one applicant seeking 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 operating test. All applicants passed the written examination. For the written examinations, the reactor operator applicant's score was 89.33 percent. The senior operator applicants' average score was 92.25 percent and ranged from 91 to 94 percent. The overall written examination average was 91.67 percent. The text of the examination questions, the licensee's examination analysis, and the licensee's post-examination comments 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 examination in ADAMS to the public will be delayed for 2 years.

The NRC examiners completed the final grading of the written examination on February 15, 2018, and conducted a review of each missed question to determine the accuracy and validity of the examination questions. In accordance with current NRC policy, the release of this written examination will be delayed for 2 years. The text of the examination questions, the licensee's examination analysis, and the licensee's post examination comments may be accessed in the ADAMS system under the accession numbers noted in the attachment.

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 for all questions that met these criteria and submitted the analysis to the chief examiner

No post exam comments were submitted by the licensee. The text of the examination questions and the licensee's examination analysis, 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 this examination will be delayed for 2 years.

### .3 Initial Licensing Examination Development

#### a. Examination Scope

The facility developed the examinations in accordance with NUREG-1021, Revision 11. All licensee facility training and operations staff involved in examination preparation and validation were listed on a security agreement. The chief examiner provided comments on the draft examination package and the facility made required changes as necessary. The NRC conducted an onsite validation of the operating examinations during the week of December 11, 2018.

#### 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 11 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, Site Training Director, and other members of the licensee's management staff on February 15, 2018. The licensee acknowledged the results 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, Senior Director, Training

NRC Personnel

P. Finney, Senior Resident Inspector

J. D'Antonio, Chief Examiner

**ITEMS OPENED, CLOSED, AND DISCUSSED**

NONE.

**ADAMS DOCUMENTS REFERENCED**

Accession No. ML18074A053 – 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. ML18074A055 – FINAL-Operating Exam