



UNITED STATES
NUCLEAR REGULATORY COMMISSION

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

March 7, 2017

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, UNITS 1 and 2 - NRC INITIAL
OPERATOR LICENSING EXAMINATION REPORT ER 05000272/2017301;
05000311/2017301

Dear Mr. Sena:

On December 16, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed an examination at Salem Nuclear Generating Station, Units 1 and 2. The enclosed examination report documents the examination results, which were discussed on January 25, 2017, with Bill Muffley, Operations Training Manager.

The examination included the evaluation of three applicants for reactor operator licenses and six applicants for instant senior reactor operator licenses. The written and operating examinations were developed using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 10. The license examiners determined that eight of the nine applicants satisfied the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 55, and the appropriate licenses were issued on January 25, 2017.

One applicant for an instant senior reactor operator failed the operating portion of the exam and was denied a license.

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

P. Sena

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

Enclosure:
Examination Report 05000272/2017301;
05000311/2017301
w/Attachment: Supplementary Information

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SUBJECT: SALEM NUCLEAR GENERATING STATION, UNITS 1 and 2 - NRC INITIAL OPERATOR LICENSING EXAMINATION REPORT ER 05000272/2017301; 05000311/2017301

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

Dockets: 50-272, 50-311

Licenses: DPR-70, DPR-75

Report : 05000272/2017301; 05000311/2017301

Licensee: PSEG Nuclear LLC

Facility: Salem Nuclear Generating Station, Units 1 and 2

Location: Hancocks Bridge, NJ 08038

Dates: December 12 - 16, 2016 (Operating Test Administration)
December 19, 2016 (Written Examination Administration)
December 21, 2016 (Licensee Submitted Post Exam Package)
January 24, 2017 (NRC Examination Grading)
January 25, 2017 (Licenses Issued)

Examiners: J. D'Antonio, Chief Examiner, Operations Branch
P. Presby, Senior Operations Engineer
D. Silk, Senior Operations Engineer
T. Hedigan, Operations Engineer

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

SUMMARY

ER 05000272/2017301; 05000311/2017301; 12/12-16/2016; Salem Nuclear Generating Station, Units 1 and 2; Initial Operator Licensing Examination Report

Four NRC examiners evaluated the competency of three applicants for reactor operator licenses and six applicants for instant senior reactor operator licenses at Salem Nuclear Generating Station, Units 1 and 2. The facility licensee developed the examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 10. The written examination was administered by the facility on December 19, 2016. NRC examiners administered the operating tests on December 12-16, 2017. The NRC examiners determined that eight of the nine applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued. One instant senior reactor license applicant failed the simulator portion of the operating test.

No findings were identified.

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

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

The examiners reviewed all nine 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 Performancea. Examination Scope

On December 19, 2016, the licensee proctored the administration of the written examinations to all nine applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on December 21, 2016.

The NRC examination team administered the various portions of the operating examination to all nine applicants on December 12-16, 2016. The three 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 six applicants seeking an instant senior reactor operator license participated in three dynamic simulator scenarios, a control room and facilities walkthrough test consisting of ten system tasks, and an administrative test consisting of five administrative tasks.

b. Findings

Eight of the nine applicants passed all parts of the operating test. One instant senior reactor operator applicant failed the simulator examination. For the written examinations, the reactor operator applicants' average score was 88.88 percent and ranged from 84 to 94.66 percent, the senior operator applicants' average score was 90 percent and ranged from 85 to 94 percent. The overall written examination average was 89.63 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.

The NRC examiners completed the final grading of the written examination on January 24, 2017, 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 examination will be delayed for two 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-examination comments were submitted.

.3 Initial Licensing Examination Development

a. Examination Scope

The facility licensee 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 facility licensee submitted both the written and operating examination outlines on September 12, 2016. The chief examiner reviewed the outlines against the requirements of NUREG-1021, and provided comments to the licensee. The facility licensee submitted the draft examination package on October 12, 2016. The chief examiner reviewed the draft examination package against the requirements of NUREG-1021, and provided comments to the licensee on the examination. The NRC conducted an onsite validation of the operating examinations and provided further comments during the week of November 14, 2016. The licensee satisfactorily completed comment resolution on prior to the administration of the examinations.

b. Findings

The NRC approved the initial examination outline and advised the licensee to proceed with the operating examination development.

The examiners determined that the written and operating examinations initially submitted by the licensee were within the range of acceptability expected for a proposed examination.

.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

None.

4OA6 Meetings, Including Exit

The chief examiner presented the examination results to Mr. Bill Muffley, Operations Training Manager on January 25, 2017. The licensee acknowledged the findings presented.

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

ATTACHMENT:
SUPPLEMENTARY INFORMATION

SUPPLEMENTARY INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

R. Boesch, Senior Director, Training
B. Muffley, Operations Training Manager

NRC Personnel

P. Finney, Senior Resident Inspector
J. D'Antonio, Chief Examiner

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

NONE

Opened and Closed

NONE

Closed

NONE

Discussed

NONE

ADAMS DOCUMENTS REFERENCED

Accession No. ML17031A302 – 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. ML17031A347 – FINAL-Operating Exam