



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

January 3, 2013

Mr. Thomas P. Joyce
President and 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 05000272/2012301;
05000311/2012301**

Dear Mr. Joyce:

On December 3, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed an examination at the Salem Generating Station, Units 1 and 2. The enclosed report documents the examination findings, which were discussed on December 18, 2012, with Mr. J. Carney, Operations Training Manager, of your staff.

The examination included the evaluation of five applicants for reactor operator licenses and four 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 9, Supplement 1. The license examiners determined that eight of the nine applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses were issued on December 18, 2012.

No findings were identified during this examination.

One applicant for a reactor operator license failed the written portion of the exam and was denied a license. One applicant for an instant senior reactor operator license passed the exam but his license is being held based on his written exam grade. Licenses for applicants with written exam passing grades of 82 percent or below are normally held for review until those applicants who failed the examination have had an opportunity to appeal their license denials.

T. Joyce

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In accordance with Title 10 of the *Code of Federal Regulations* (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 Documents 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,

A handwritten signature in black ink, appearing to read "Donald E. Jackson", with a stylized flourish at the end.

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

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

Enclosure:
NRC Initial Operator Licensing Examination
Report 05000272/2012301 and 05000311/2012301
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

In accordance with Title 10 of the *Code of Federal Regulations* (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 Documents 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

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EXAMINATION REPORT

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

Dockets: 50-272, 50-311

Licenses: DPR-70, DPR-75

Report : 05000272/2012301; 05000311/2012301

Licensee: PSEG Nuclear LLC

Facility: Salem Nuclear Generating Station, Units 1 and 2

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

Dates: November 26-30, 2012 (Operating Test Administration)
December 3, 2012 (Written Examination Administration)
December 6, 2012 (Licensee Submitted Post Exam Package)
December 13, 2012 (NRC Examination Grading)
December 18, 2012 (Licenses Issued)

Examiners: D. Silk, Chief Examiner, Operations Branch
B. Fuller, Chief Examiner (Under Instruction)
T. Fish, Senior Operations Engineer
J. Tomlinson, Operations Engineer

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

SUMMARY OF FINDINGS

ER 05000272/2012301; 05000311/2012301; 11/26/2012 – 12/03/2012; Salem Nuclear Generating Station, Units 1 and 2; Initial Operator Licensing Examination Report.

NRC examiners evaluated the competency of five applicants for reactor operator licenses and four applicants for instant senior reactor operator licenses at the Salem Generating Station, Units 1 and 2. The facility licensee 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 December 3, 2012. NRC examiners administered the operating tests on November 26-30, 2012. The license examiners determined that eight of the nine applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued.

A. NRC-Identified and Self-Revealing Findings

No findings were identified.

B. Licensee-Identified Violations

None.

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA5 Other Activities (Initial Operator License Examination)

.1 License Applications

a. Scope

The examiners reviewed all of the 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 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 December 3, 2012, 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 U.S. Nuclear Regulatory Commission (NRC) on December 6, 2012.

The NRC examination team administered the various portions of the operating examination to all nine applicants on November 26-30, 2012. The five applicants for reactor operator licenses participated in two or three dynamic simulator scenarios, in a control room and facilities walkthrough test consisting of 11 system tasks, and an administrative test consisting of four tasks. The four applicants for instant senior reactor operator licenses 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 tasks.

b. Findings

All nine of the applicants passed all parts of the operating test. However, one reactor operator applicant failed the written examination. For the written examinations, the reactor operator applicants' average score was 83.4 percent and ranged from 73.3 to 92.0 percent and the senior reactor operator applicants' average score was 83.8 percent and ranged from 81.0 to 86.0 percent. The overall written examination

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average was 83.6 percent. The text of the examination questions may be accessed in the Agencywide Documents Access and Management System (ADAMS) system under the accession numbers noted in Attachment 1. There were no post-examination comments submitted by the licensee for this examination. In accordance with current NRC policy, the release of this written examination in ADAMS to the public will be delayed for 2 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 for questions that were missed by more than 30 percent of the applicants and submitted the analysis to the chief examiner.

.3 Initial Licensing Examination Development

a. Examination Scope

The facility licensee developed the examinations in accordance with NUREG-1021, Revision 9, Supplement 1. 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 14, 2012. 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 September 14, 2012. The chief examiner reviewed the draft examination package against the requirements of NUREG-1021, and provided comments to the licensee on the examination on October 23, 2012. The NRC conducted an onsite validation of the operating examinations and provided further comments during the week of November 5, 2012. The licensee satisfactorily completed comment resolution on November 20, 2012.

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.

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.

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b. Findings

No findings were identified. One simulator performance observation was documented in Attachment 2, Simulator Fidelity Report.

.5 Examination Securitya. 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 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. J. Carney, Operations Training Manager, on December 18, 2012. The licensee acknowledged the results presented.

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

Attachments:

1. Supplemental Information
2. Simulator Fidelity Report

Enclosure

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

J. Carney, Operations Training Manager
G. Gauding, Exam Developer

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

NONE

Closed

NONE

Discussed

NONE

ADAMS DOCUMENTS REFERENCED

Accession No. ML12353A456 – 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. ML12353A473 – FINAL-Operating Exam

ES-501**Simulator Fidelity Report****Attachment 2**Facility Licensee: SalemFacility Docket No.: 50-272 and 50-311Operating Test Administered on: 11/26-30/12

This form is to be used only to report observations. These observations do not constitute audit or inspection findings and, without further verification and review in accordance with IP 71111.11, are not indicative of noncompliance with 10 CFR 55.46. No licensee action is required in response to these observations.

While conducting the simulator portion of the operating tests, examiners observed the following items:

Item	Description
1	The Control Bank D rod position indication on Digital Recorder DR-442 did not match Control Bank D rod position as indicated on the corresponding group counters. DR-442 indicted that CBD rods were approximately 15 steps lower than the actual position. This phenomenon only occurred at higher reactor power levels. According to the licensee, this condition has occurred in the past and was attributable to a component malfunction in the simulator. The licensee has documented this problem and entered it into the corrective action program.