



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

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

May 18, 2015

Mr. Bryan Hanson  
Senior Vice President, Exelon Generation  
President and Chief Nuclear Officer, Exelon Nuclear  
4300 Winfield RD  
Warrenville, IL 60555

**SUBJECT: PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3-NRC INITIAL  
OPERATOR LICENSING EXAMINATION REPORT NOS. 05000277/2015301  
AND 05000278/2015301**

Dear Mr. Hanson:

On April 16, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed an examination at Peach Bottom Atomic Power Station, Units 2 and 3. The enclosed report documents the examination findings, which were discussed on May 7, 2015, with Mr. Robert Reiner, Jr., Training Director, and other members of your staff.

The examination included the evaluation of six applicants for reactor operator licenses, six applicants for instant senior operator licenses, and two applicants for upgrade senior 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 all of the applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses were issued on May 7, 2015.

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 Documents Access and Management System (ADAMS).

B. Hanson

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Sincerely,

**/RA/**

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

Docket Nos. 05000277 and 05000278  
License Nos. DPR-44 and DPR-56

Enclosure:  
NRC Initial Operator Licensing Examination  
Report Nos. 05000277 and 278/2015301  
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

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Sincerely,

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**EXAMINATION REPORT**

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

Dockets: 50-277, 50-278  
Licenses: DPR-44, DPR-56  
Report: 05000277/2015301; 05000278/2015301  
Licensee: Exelon Generation Company, LLC  
Facility: Peach Bottom Atomic Power Station, Units 2 and 3  
Location: 1848 Lay Rd.  
Delta, PA 17314  
Dates: March 23-30, 2015 (Operating Test Administration)  
April 16, 2015 (Written Examination Administration)  
April 21, 2015 (Licensee Submitted Post Exam Package)  
March 30 – May 7, 2015 (NRC Examination Grading)  
May 7, 2015 (Licenses Issued)

Examiners: P. Presby, Chief Examiner, Operations Branch  
M. Patel, Operations Engineer  
T. Dunn, Operations Engineer

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

## **SUMMARY**

ER 05000277/2015301; 05000278/2015301; March 23-30, 2015 and April 16, 2015; Peach Bottom Atomic Power Station, Units 2 and 3; Initial Operator Licensing Examination Report.

NRC examiners evaluated the competency of six applicants for reactor operator licenses, six applicants for instant senior operator licenses and two applicants for upgrade senior operator licenses at Peach Bottom Atomic Power Station, Units 2 and 3. 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 April 16, 2015. NRC examiners administered the operating tests on March 23-30, 2015. The license examiners determined that all of the 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 14 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 April 16, 2015, the licensee proctored the administration of the written examinations to all 14 applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on April 21, 2015.

The NRC examination team administered the various portions of the operating examination to all 14 applicants on March 23-30, 2015. The six 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 4 administrative tasks. The six applicants seeking an instant senior operator license participated in two or 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. The two applicants for upgrade senior operator licenses 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.

Enclosure

b. Findings

All 14 of the applicants passed all parts of the operating test. For the written examinations, the reactor operator applicants' average score was 85.78 percent and ranged from 84.00 to 90.66 percent, the senior operator applicants' average score was 89.37 percent and ranged from 83.00 to 93.00 percent. The overall written examination average was 87.83 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 written examination in ADAMS to the public will be delayed for two years.

The NRC examiners completed the final grading of the written examination on May 7, 2015, 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 two years. The text of the examination questions may be accessed in the ADAMS system under the accession numbers noted in Attachment 1.

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 eight questions that met these criteria and submitted the analysis to the chief examiner. This analysis concluded that the questions were valid as written.

.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 December 16, 2014. 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 January 23, 2015. The chief examiner reviewed the draft examination package against the requirements of NUREG-1021, and provided comments to the licensee on the examination on February 20, March 9 and March 16, 2015. The NRC conducted an onsite validation of the operating examinations and provided further comments during the week of February 9, 2015. The licensee satisfactorily completed op-test comment resolution on March 18, 2015 and written exam comment resolution on April 13, 2015.

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.

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 requirements. Plans for simulator security and applicant control were reviewed and discussed with licensee personnel.

b. Findings

No findings were identified.

**40A6 Meetings, Including Exit**

The chief examiner presented the examination results to Mr. Robert Reiner, Jr., Training Director, and other members of the licensee's management staff on May 7, 2015. 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



**SUPPLEMENTAL INFORMATION**

**KEY POINTS OF CONTACT**

Licensee Personnel

C. Millard, Operations Training Manager  
M. Kelly, Exam Developer  
R. Artus, Exam Developer

NRC Personnel

S. Hansell, Senior Resident Inspector

**ITEMS OPENED, CLOSED, AND DISCUSSED**

None

**ADAMS DOCUMENTS REFERENCED**

Accession No. ML15131A256	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. ML15131A255	FINAL-Operating Exam