



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

May 9, 2013

Mr. Michael J. Pacilio  
Senior Vice President, Exelon Generation Company, LLC  
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 05000277/2013301;  
05000278/2013301

Dear Mr. Pacilio:

On April 4, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed an examination at the Peach Bottom facility. The enclosed report documents the examination findings, which were discussed on April 18, 2013, with Messrs. John Bowers, Training Director, and other members of your staff.

The examination included the evaluation of three applicants for reactor operator licenses, four applicants for instant senior operator licenses, and three 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 applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses were issued on April 18, 2013.

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). 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

Enclosure: NRC Initial Operator Licensing Examination Report 05000277/2013301;  
05000278/2013301 w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ

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## **EXAMINATION REPORT**

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

Dockets: 50-277, 50-278

Licenses: DPR-44, DPR-56

Report : 05000277/2013301; 05000278/2013301

Licensee: Exelon Generation Company, LLC

Facility: Peach Bottom Atomic Power Station, Units 2 and 3

Location: 1848 Lay Rd.  
Delta, PA 17314

Dates: March 25-28, 2013 (Operating Test Administration)  
April 4, 2013 (Written Examination Administration)  
April 11, 2013 (Licensee Submitted Post Exam Package)  
March 29 – April 15, 2013 (NRC Examination Grading)  
April 18, 2013 (Licenses Issued)

Examiners: T. Fish, Chief Examiner, Operations Branch  
P. Presby, Senior Operations Engineer  
B. Fuller, Operations Engineer  
M. Patel, Operations Engineer

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

## SUMMARY OF FINDINGS

ER 05000277/2013301 and 05000278/2013301; March 25-28, 2013, and April 4, 2013; Peach Bottom Atomic Power Station, Units 2 and 3; Initial Operator Licensing Examination Report.

NRC examiners evaluated the competency of three applicants for reactor operator licenses, four applicants for instant senior operator licenses, and three 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 4, 2013. NRC examiners administered the operating tests on March 25-28, 2013. The license examiners determined that all 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 ten 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 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 4, 2013, the licensee proctored the administration of the written examinations to all ten applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on April 11, 2013.

The NRC examination team administered the various portions of the operating examination to all ten applicants on March 25-28, 2013. The three applicants for reactor operator licenses participated in two 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 four applicants seeking an instant senior operator license participated in at least 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 three applicants for upgrade senior operator licenses participated in at least one dynamic simulator scenario, a control room and facilities walkthrough test consisting of five system tasks, and an administrative test consisting of five administrative tasks.

###### b. Findings

All ten applicants passed all parts of the operating test. For the written examinations, the reactor operator applicants' average score was 88.44 percent and ranged from 88.00 to 89.33 percent; the senior operator applicants' average score was 90.44 percent and ranged from 86.00 to 98.00 percent. The overall written examination average was 89.63 percent. The text of the examination questions 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.

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 six questions that met this criterion 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 28, 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 February 5, 2013. 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 22, 2013. The NRC conducted an onsite validation of the operating examinations and provided further comments during the week of February 25, 2013. The licensee satisfactorily completed comment resolution on March 19, 2013.

b. Findings

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.

4OA6 Meetings, Including Exit

The chief examiner presented the examination results to Messrs. John Bowers, Training Director, and other facility management staff on April 18, 2013. The licensee acknowledged the findings presented.

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

ATTACHMENT:

1. SUPPLEMENTAL INFORMATION



## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### **Licensee Personnel**

B. Hennigen, Operations Training Manager

M. Kelly, Exam Developer

J. Verbillis, Exam Developer

#### **NRC Personnel**

S. Hansell, Senior Resident Inspector

### **ITEMS OPENED, CLOSED, AND DISCUSSED**

None

### **ADAMS DOCUMENTS REFERENCED**

Accession No. ML13098A256 – 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. ML13098A271 – FINAL-Operating Exam