



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, IL 60532-4352

October 8, 2013

Mr. Michael J. Pacilio  
Senior Vice President, Exelon Generation Co., LLC  
President and Chief Nuclear Officer, Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

**SUBJECT: CLINTON POWER STATION, UNIT 1, NRC INITIAL LICENSE EXAMINATION  
REPORT 05000461/2013301**

Dear Mr. Pacilio:

On September 11, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed the initial operator licensing examination process for license applicants employed at your Clinton Power Station. The enclosed report documents the results of those examinations. Preliminary observations noted during the examination process were discussed on August 27, 2013, with Mr. D. Kemper and other members of your staff. An interim exit meeting was conducted by telephone on September 13, 2013, between Mr. T. Jennings of your staff and Mr. D. Reeser, Chief Operator Licensing Examiner, to review the proposed final grading of the written examination for the license applicants. During the telephone conversation, Mr. Reeser confirmed that the post-examination package was received on September 11, 2013, and that there were no post-examination comments for the written examination. An exit meeting was conducted by telephone on October 2, 2013, with Mr. S. Minya, Initial License Training Lead. Additionally, the resolutions to two issues related to the final grading to the operating test were discussed.

The NRC examiners administered an initial license examination operating test during the weeks of August 19 and 26, 2013. The written examination was administered by Clinton Power Station training department personnel on August 29, 2013. Seven Senior Reactor Operator and four Reactor Operator applicants were administered license examinations. The results of the examinations were finalized on October 1, 2013. All 11 applicants passed all sections of their respective examinations and 6 applicants were issued senior operator licenses and 4 applicants were issued operator licenses. The license for one senior operator license applicant is being withheld pending written certification that the applicant has completed the remaining 6 of the 12 months of Responsible Nuclear Plant Experience required by the National Academy for Nuclear Training Guidelines for Initial Training and Qualification of Licensed Operators.

The proposed and final written examinations and answer keys will be withheld from public disclosure for 24 months per your request.

M. Pacilio

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In accordance with Title 10 of the *Code of Federal Regulations*, Section 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 System (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

*/RA/*

Hironori Peterson, Chief  
Operations Branch  
Division of Reactor Safety

Docket No. 50-461  
License No. NPF-62

Enclosure: Operator Licensing Examination Report 05000461/2013301  
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServ™

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-461  
License No: NPF-62

Report No: 05000461/2013301

Licensee: Exelon Generation Co., LLC

Facility: Clinton Power Station, Unit 1

Location: Clinton, IL

Dates: August 19 through September 11, 2013

Inspectors: D. Reeser, Operations Engineer, Chief Examiner  
M. Bielby, Senior Operations Engineer, Examiner  
R. Baker, Operations Engineer, Examiner

Approved by: H. Peterson, Chief  
Operations Branch  
Division of Reactor Safety

Enclosure

## **SUMMARY OF FINDINGS**

ER 05000461/2013301; 08/19/2013 – 09/11/2013; Exelon Generation Co., LLC; Clinton Power Station; Unit 1, Initial License Examination Report.

The announced initial operator licensing examination was conducted by regional U.S. Nuclear Regulatory Commission (NRC) examiners in accordance with the guidance of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1.

### Examination Summary

Eleven of 11 applicants passed all sections of their respective examinations. Six applicants were issued senior operator licenses and four applicants were issued operator licenses. The license for 1 senior operator license applicant is being withheld pending written certification that the applicant has completed the remaining 6 of the 12 months of Responsible Nuclear Plant Experience required by the National Academy for Nuclear Training Guidelines for Initial Training and Qualification of Licensed Operators. (Section 40A5.1)

## REPORT DETAILS

### 4OA5 Other Activities

#### .1 Initial Licensing Examinations

##### a. Examination Scope

The NRC examiners and members of the facility licensee's staff used the guidance prescribed in NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1, to develop, validate, administer, and grade the written examination and operating test. Members of the facility licensee's staff prepared the outlines and developed the written examination and operating test. The NRC examiners validated the proposed examination during the week of July 29, 2013, with the assistance of members of the facility licensee's staff. During the onsite validation week, the examiners audited two license applications for accuracy. The NRC examiners, with the assistance of members of the facility licensee's staff, administered the operating test, consisting of job performance measures (JPMs) and dynamic simulator scenarios, during the period of August 19 through 26, 2013. The facility licensee administered the written examination on August 29, 2013.

##### b. Findings

###### (1) Written Examination

The NRC examiners determined that the written examination, as proposed by the licensee, was within the range of acceptability expected for a proposed examination. Changes made to the proposed written examination, were made in accordance with NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," and documented on Form ES-401-9, "Written Examination Review Worksheet," which will be available electronically in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's Agencywide Documents Access and Management System (ADAMS).

On September 11, 2013, the licensee submitted documentation noting that there were no post-examination comments for consideration by the NRC examiners when grading the written examination.

The proposed (ADAMS Accession Numbers ML13255A088 and ML13255A100) and final as-administered (ADAMS Accession Numbers ML13276A133 and ML13276A135) written examinations and answer keys will be available in 24 months electronically in the NRC Public Document Room or from the PARS component of NRC's ADAMS.

The NRC examiners graded the written examination on September 13, 2013, and conducted a review of each missed question to determine the accuracy and validity of the examination questions.

###### (2) Operating Test

The NRC examiners determined that the operating test, as originally proposed by the licensee, was within the range of acceptability expected for a proposed operating test.

Changes made to the proposed operating test, were made in accordance with NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," and were documented in a document containing "Operating Test Comments" (or similar phrase) in the title, which will be available electronically in the NRC Public Document Room or from the PARS component of NRC's ADAMS.

Two of the "Administrative" job performance measures (JPMs) administered to the senior reactor operator (SRO) applicants had to be modified during the administration of the Operating Test. During administration of a JPM related to the classification of an "emergency event" to the first of seven SRO applicants, it was discovered that the "initial conditions" to be supplied to the applicant had not been updated when the JPM was revised by the facility to address NRC concerns identified during the onsite validation of the operating test. The JPM had been revised to require a "General Emergency" classification of the event, instead of the "Site Area Emergency" classification required by the originally submitted JPM. Since the "initial conditions" had not been revised, the first applicant classified the event, correctly for the conditions provided, as a "Site Area Emergency" and was given credit for satisfactorily completing the assigned task. The "initial conditions" section of the JPM was revised before the JPM was administered to the remaining six SRO applicants. The second JPM was related to determining off-site notification requirements for the Emergency Response Data System (ERDS) being inoperable. The JPM was validated using versions of the associated reference materials that were authorized for use at the time of the onsite validation. The associated reference materials were revised and issued between the time that the examination material was validated and the examination administration. The revised reference materials were provided to the applicants during the administration of the JPM by the facility. The changes made to the reference materials resulted in a change of the expected outcome of the assigned task. The JPM completion standards were revised and the applicants were graded based on the revised standards.

The final as-administered dynamic simulator scenarios and JPMs, will be available electronically in the NRC Public Document Room, or from the PARS component of NRC's ADAMS.

The NRC examiners completed operating test grading on October 1, 2013.

### (3) Examination Results

Seven applicants at the SRO level and four applicants at the Reactor Operator (RO) level were administered written examinations and operating tests. Ten applicants passed all portions of their examinations and were issued their respective operating licenses. One SRO applicant passed all portions of their examinations, but the license is being withheld pending written certification that the applicant has completed the remaining 6 of the 12 months of Responsible Nuclear Plant Experience required by the National Academy for Nuclear Training Guidelines for Initial Training and Qualification of Licensed Operators.

### .2 Examination Security

#### a. Scope

The NRC examiners reviewed and observed the licensee's implementation of examination security requirements during the examination validation and administration

to assure compliance with Title 10 of the *Code of Federal Regulations*, Section 55.49, "Integrity of Examinations and Tests." The examiners used the guidelines provided in NUREG-021, "Operator Licensing Examination Standards for Power Reactors," to determine acceptability of the licensee's examination security activities.

b. Findings

During administration of the simulator scenario portion of the operating test, the examination team identified, on two separate occasions, that the facility staff failed to ensure, between successive administrations of the scenarios, that all place-keeping marks were erased from the procedures used by the applicants during the scenarios. The examination team evaluated whether the un-erased marks provided an unfair advantage to the applicants. In both instances, the applicants had referred to the procedures and applicable sections, as expected, without reliance on the markings. The applicants noted the markings and immediately erased them before continuing with performance of the expected activity. The examination team, therefore, concluded that the markings had not aided the applicants in the performance of the expected activities.

Since there is reasonable assurance that no applicant received an unfair advantage, no examination material had to be modified or replaced as a result, and there was no impact on the decision of whether or not to issue an operator license, this failure to comply with 10 CFR 55.49 constitutes a violation of minor significance that is not subject to enforcement action in accordance with the NRC's Enforcement Policy.

.3 Simulation Facility Fidelity

a. Scope

The physical (hardware or equipment) and functional (performance) fidelity of the simulation facility were monitored by the examination team, during the validation and administration of the simulator portions of the operating test, to assure that deficiencies in the simulation facility did not impact the equitable and consistent administration of the operating test.

b. Observations

None

4OA6 Management Meetings

.1 Debrief

The chief examiner presented the examination team's preliminary observations and findings on August 27, 2013, to: Mr. S. Minya, Initial License Training Lead, and other members of the Clinton Power Station Operations Training staff during an examination debrief and to Mr. D. Kemper, Site Engineer Director and other members of the Clinton Power Station staff during an interim exit meeting. The examiners asked the facility's staff whether any of the material used to develop or administer the examination should be considered proprietary. No proprietary or sensitive information was identified during the examination or debrief/exit meetings.

.2 Exit Meeting Summary

The chief examiner conducted an exit meeting on October 2, 2013, with Mr. S. Minya, Initial License Training Lead by telephone. The NRC's final disposition of the station's post-examination comments were disclosed and discussed with during the telephone discussion.

ATTACHMENT: SUPPLEMENTAL INFORMATION



**SUPPLEMENTAL INFORMATION**

**KEY POINTS OF CONTACT**

Licensee

C. Dunn, Training Director  
J. Cunningham, Operations Director  
R. Bair, Shift Operations Superintendent  
D. Snook, Operations Training Manager  
S. Minya, Initial License Training Lead  
R. Frantz, Regulatory Assurance Representative

NRC

D. Reeser, Chief Examiner  
M. Bielby, Examiner  
R. Baker, Examiner

**LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

Opened, Closed, and Discussed

None

**LIST OF DOCUMENTS REVIEWED**

None

## LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access and Management System
CFR	Code of Federal Regulations
DRS	Division of Reactor Safety
JPM	Job Performance Measures
NRC	U.S. Nuclear Regulatory Commission
RO	Reactor Operator
SRO	Senior Reactor Operator

M. Pacilio

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Sincerely,

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Hironori Peterson, Chief  
Operations Branch  
Division of Reactor Safety

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