



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

December 17, 2018

Mr. Bryan C. Hanson  
Senior Vice President, Exelon Generation Company, LLC  
President and Chief Nuclear Officer (CNO), Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: R. E. GINNA NUCLEAR POWER PLANT – INITIAL OPERATOR LICENSING  
EXAMINATION REPORT 05000244/2018301

Dear Mr. Hanson:

On September 27, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an examination at R. E. Ginna Nuclear Power Plant. The enclosed examination report documents the examination results, which were discussed on November 13, 2018, with Mr. William Carsky, Site Vice President, and other members of your staff.

The examination included the evaluation of six applicants for reactor operator licenses, five applicants for instant senior reactor operator licenses, and three applicants for upgrade senior reactor operator licenses. The written and operating examinations were developed using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 11. The license examiners determined that 7 of the 14 applicants satisfied the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 55, and the appropriate licenses were issued on November 13, 2018.

No findings were identified during this examination.

Two applicants for a reactor operator license failed the operating portion of the exam and were denied licenses. Two applicants for instant senior reactor operator licenses failed the written exam and were denied licenses. One applicant for an instant senior reactor operator license failed both the written and the operating portion of the exam and was denied a license. One applicant for an upgrade senior reactor operator license failed the written portion of the exam and was denied a license. One applicant for an upgrade senior reactor operator license failed both the written and the operating portion of the exam and was denied a license.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR), Part 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

**/RA/**

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

Docket No. 50-244  
License No. DPR-18

Enclosure:  
Examination Report 05000244/2018301  
w/Attachment: Supplementary Information

cc w/encl: Distribution via ListServ

SUBJECT: R. E. GINNA NUCLEAR POWER PLANT – INITIAL OPERATOR LICENSING  
EXAMINATION REPORT 05000244/2018301 DATED DECEMBER 17, 2018

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

Docket No. 50-244

License No. DPR-18

Report No. 05000244/2018301

Licensee: Exelon Generation Company, LLC

Facility: R. E. Ginna Nuclear Power Plant

Location: Ontario, New York

Dates: August 27, 2018 – September 5, 2018 (Operating Test Administration)  
September 27, 2018 (Written Examination Administration)  
October 17, 2018 (Licensee Submitted Post Exam Package)  
October 17, 2018 – November 12, 2018 (NRC Examination Grading)  
November 13, 2018 (Licenses Issued)

Examiners: P. Presby, Chief Examiner, Operations Branch  
J. D'Antonio, Senior Operations Engineer  
T. Fish, Senior Operations Engineer  
M. Patel, Operations Engineer

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

Enclosure

## SUMMARY

ER 05000244/2018301; August 27, 2018 – September 5, 2018, September 27, 2018;  
R. E. Ginna Nuclear Power Plant Initial Operator Licensing Examination Report.

Four NRC examiners evaluated the competency of six applicants for reactor operator licenses, five applicants for instant senior reactor operator licenses, and three applicants for upgrade senior reactor operator licenses at R. E. Ginna Nuclear Power Plant. The NRC developed the examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 11. The written examination was administered by the facility on September 27, 2018. NRC examiners administered the operating tests on August 27, 2018 – September 5, 2018. The NRC examiners determined that 7 of the 14 applicants satisfied the requirements of Title 10 of the *Code of Federal Regulations* (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 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 three 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 September 27, 2018, 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 October 17, 2018.

The NRC examination team administered various portions of the operating examination to all 14 applicants on August 27, 2018 – September 5, 2018. The six applicants for reactor operator licenses participated in two or three dynamic simulator scenarios, a control room and facilities walkthrough test consisting of 11 system tasks, and an administrative test consisting of four administrative tasks. The five applicants seeking an instant senior reactor 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 three applicants for upgrade senior reactor 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.

###### b. Findings

Seven of the 14 applicants passed all parts of the exam. Two applicants for a reactor operator license failed the operating (walkthrough) portion of the exam. Two applicants for an instant senior reactor operator license failed the written exam. One applicant for an instant senior reactor operator license failed both the written and the operating (walkthrough) portion of the exam. One applicant for an upgrade senior reactor

operator license failed the written portion of the exam. One applicant for an upgrade senior reactor operator license failed both the written and the operating (simulator) portion of the exam. For the written examinations, the reactor operator applicants' average score was 83.11 percent and ranged from 80.00 to 88.00 percent, the senior operator applicants' average score was 81.94 percent and ranged from 73.74 to 87.88 percent. The overall written examination average was 82.44 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 November 12, 2018, 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, 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 27 questions, 13 of which met the criteria stated above, and submitted the analysis to the chief examiner. This analysis concluded that four of the questions (#78, 80, 84, 95) required changes. The facility recommended accepting multiple answers for Questions #78 and #80 and deleting Questions #84 and #95.

The licensee submitted post-examination comments on October 17, 2018. These were comprised of comments on four written exam questions (#78, 80, 84, and 95), a reanalysis of the required Technical Specification (TS) action statement entries in the simulator scenarios and a recommended change to the grading on a control room job performance measure. The NRC reviewed the facility's post-exam comment submittal package and accepted facility recommendations on one of the four written questions. Question #84 was deleted from the senior reactor operator exam. Questions #78, 80, and 95 were determined to be acceptable as administered, requiring no post-exam changes. The NRC agreed with the reanalysis of the required simulator scenario TS action statement entries and graded the operating test TS action statements in accordance with this assessment. The NRC agreed with the licensee's revised grading recommendation submitted on a control room job performance measure. The text of the examination questions, the licensee's examination analysis, and the licensee's post-examination comments with the NRC resolutions may be accessed in the ADAMS system under the accession numbers noted in the Attachment 1. In accordance with current NRC policy the release of this written examination will be delayed for two years.

### .3 Initial Licensing Examination Development

#### a. Examination Scope

The NRC developed the examinations in accordance with NUREG-1021, Revision 11. All licensee facility training and operations staff involved in examination preparation and validation were listed on a security agreement. The NRC submitted the written

examination outline for facility review on February 13, 2018. The NRC submitted the draft operating test for licensee review on March 29, 2018. The licensee reviewed the written outline and the draft operating test against the requirements of NUREG-1021, and provided comments to the NRC. The NRC submitted portions of the draft examination for licensee review on June 16, 2018 (79 questions), July 3, 2018 (18 questions), and July 5, 2018 (3 questions). The licensee reviewed the draft written examination package against the requirements of NUREG-1021, and provided initial comments to the NRC in early July 2018. The NRC worked extensively with the licensee between July and late September, modifying written exam questions as necessary based on licensee feedback. The NRC conducted an onsite validation of the operating examinations during the week of July 30, 2018. The NRC satisfactorily completed resolution of written examination comments on September 20, 2018.

b. Findings

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, Revision 11 requirements. Plans for simulator security and applicant control were reviewed and discussed with licensee personnel.

b. Findings

A breach of exam security requirements occurred on Saturday, September 15, 2018, when a member of the licensee staff, who was on the exam security agreement, inadvertently sent the draft written exam from his laptop computer to a remote printer located in his closed office facility. The individual immediately realized his error and engaged the onsite security staff at his locked office facility to confirm by security logs that the office was unoccupied and remained unoccupied during the time it took the individual to travel to his office to secure the exam. Investigation by the licensee determined no actual compromise occurred as the exam was in the unoccupied, locked facility, unseen by anyone else for a relatively short period of time before being properly secured by the individual. The licensee initiated corrective actions to assess and make recommendations for process changes to prevent recurrence of this type of event.

4OA6 Meetings, Including Exit

The chief examiner presented the examination results to Mr. William Carsky, Site Vice President, and other members of the licensee's management staff on November 13, 2018. The licensee acknowledged the findings presented.

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

4OA7 Licensee-Identified Violations

None

**ATTACHMENT: SUPPLEMENTARY INFORMATION**

## **SUPPLEMENTARY INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee Personnel

D. Hurlburt, Operations Training Manager  
D. Eckert, Exam Developer  
D. Dettman, Facility Exam Representative  
D. Bisailon, Exam Technical Reviewer

#### NRC Personnel

N. Perry, Senior Resident Inspector

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

#### Opened

NONE

#### Opened and Closed

NONE

#### Closed

NONE

#### Discussed

NONE

### **ADAMS DOCUMENTS REFERENCED**

Accession No. ML18323A256 – FINAL-Written Exam (Note: In accordance with current NRC policy, the release of this document in ADAMS to the public will be delayed for two years.)

Accession No. ML18323A259 – FINAL-Operating Exam (Note: In accordance with current NRC policy, the release of this document in ADAMS to the public will be delayed for two years.)

Accession No. ML18323A251 – FINAL-Post Exam Comments, Resolutions, and Technical References (Note: In accordance with current NRC policy, the release of this document in ADAMS to the public will be delayed for two years.)