



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

May 21, 2015

Mr. Bryan C. Hanson  
Senior VP, Exelon Generation Company, LLC  
President and CNO, Exelon Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3  
NRC INITIAL LICENSE EXAMINATION REPORT 05000237/2015301;  
05000249/2015301

Dear Mr. Hanson:

On April 22, 2015, the U.S. Nuclear Regulatory Commission (NRC) completed the initial operator licensing examination process for licensed applicants employed at your Dresden Nuclear Power Station, Units 2 and 3. The enclosed report documents the results of those examinations. Preliminary observations noted during the examination process were discussed on April 14, 2015, with Mr. S. Marik, Site Vice President, and other members of your staff. An exit meeting was conducted by telephone on April 27, 2015, between Mr. P. Prater, Dresden Station Training Director (acting), and Mr. R. Baker, Operations Engineer (Chief Examiner), to review the proposed final grading of the written examination for the licensed applicants. During the telephone conversation, the NRC confirmed the station's submitted documentation received by the NRC on April 22, 2015, noting that there were no post-examination comments for consideration during NRC validation of the written examination grading.

The NRC examiners administered an initial license examination operating test during the weeks of April 6 and 13, 2015. The written examination was administered by your Dresden Station training department personnel on April 15, 2015. Seven Senior Reactor Operator and five Reactor Operator applicants were administered license examinations. The results of the examinations were finalized on May 15, 2015. All 12 applicants passed all sections of their respective examinations, with seven applicants issued Senior Operator licenses and five applicants issued Operator licenses.

The written examination will be withheld from public disclosure for 24 months per your request.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390, "Public Inspections, Exemptions, Requests for Withholding," of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response (if any) will be available electronically for public

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Sincerely,

*/RA/*

Hironori Peterson, Chief  
Operations Branch  
Division of Reactor Safety

Docket Nos. 50-237; 50-249  
License Nos. DPR-19; DPR-25

Enclosures:

1. Operator Licensing Exam Report (ER)  
05000237/2015301; 05000249/2015301  
w/Attachment: Supplemental Information
2. Simulation Facility Report

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-237; 50-249  
License Nos: DPR-19; DPR-25

Report No: 05000237/2015301; 05000249/2015301

Licensee: Exelon Generation Company, LLC

Facility: Dresden Nuclear Power Station, Units 2 and 3

Location: Morris, IL

Dates: April 6 – April 22, 2015

Inspectors: R. Baker, Operations Engineer, Chief Examiner  
R. K. Walton, Senior Operations Engineer, Examiner  
N. Valos, Senior Reactor Analyst, Examiner

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

## **SUMMARY OF FINDINGS**

ER 05000237/2015301; 05000249/2015301; 4/06/2015 – 04/22/2015; Exelon Nuclear Operations, Inc., Dresden Nuclear Power Station, Units 2 and 3; 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

Twelve applicants passed all sections of their respective examinations. Seven applicants were issued Senior Operator licenses and five applicants were issued operator licenses. (Section 4OA5.1)

## REPORT DETAILS

### 4OA5 Other Activities

#### .1 Initial Licensing Examinations

##### a. Examination Scope

The U.S. Nuclear Regulatory Commission (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's staff prepared the outlines and developed the written examination and operating test. The NRC examiners validated the proposed examination during the week of March 9, 2015, with the assistance of members of the facility licensee's staff. During the on-site validation week, the examiners audited two complete license applications and the eligibility requirements all remaining 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 weeks of April 6 and 13, 2015. The facility licensee administered the written examination on April 15, 2015.

##### 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. Less than 20 percent of the proposed examination questions were determined to be unsatisfactory and required modification or replacement.

All changes made to the proposed 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 is available electronically in the NRC Public Document Room or from the Publicly Available Records component of NRC's Agencywide Documents Access and Management System (ADAMS).

On April 22, 2015, 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 written examination, as well as the final as-administered examination and answer key will be available in 24 months electronically in the NRC Public Document Room or from the Publicly Available Records component of ADAMS.

The NRC examiners validated the grading of the written examination on April 27, 2015, 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 examination. However, several JPMs were modified for clarification and ease of administration. Changes made to the operating test, documented in a document titled, "Operating Test Comments," as well as the final as-administered dynamic simulator scenarios and JPMs, are available electronically in the NRC Public Document Room or from the Publicly Available Records component of NRC's ADAMS.

During the administration of one simulator JPM, the examiners identified a recurring deficiency in how the applicants (5 of 12) were implementing the subsequent operator actions for the trip of one recirculation pump when operating at near full power. The licensee observed the applicants performance on this JPM. Based upon responses from the applicants to follow-up questions asked by the examiners, the performance issue resulted from confusion over which flow control line value should be used to evaluate which operator actions are required by the abnormal procedure. The procedure does not clearly define which flow control line value to use when implementing subsequent flowchart actions. Following completion of the examination operating test, the licensee initiated an action request (AR 02484471) to address several procedural items identified during the operating test administration.

The NRC examiners completed operating test grading on May 15, 2015.

(3) Examination Results

Seven applicants at the Senior Reactor Operator (SRO) level and five applicants at the Reactor Operator (RO) level were administered written examinations and operating tests. All applicants passed all portions of their examinations. On May 19, 2015, seven applicants were issued Senior Operator licenses and five applicants were issued Operator licenses.

.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* (CFR), Section 55.49, "Integrity of Examinations and Tests." The examiners used the guidelines provided in NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," to determine acceptability of the licensee's examination security activities.

b. Findings

No findings were identified.

#### 4OA6 Management Meetings

##### .1 Debrief

The chief examiner presented the examination team's preliminary observations and findings on April 14, 2015, to Mr. S. Marik, Site Vice President, and other members of the Dresden Nuclear Power Station Operations and Training Department staff.

##### .2 Exit Meeting Summary

The chief examiner conducted an exit meeting by telephone on April 27, 2015, with Mr. P. Prater, Dresden Station Training Director (acting), Mr. D. Thomas III, Dresden Operations Training Manager (acting), and Mr. J. Feigl, Dresden Shift Operations Superintendent. The NRC's final disposition of the examination results were discussed during the telephone call. No proprietary or sensitive information was identified during the examination or debrief/exit meetings.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee

S. Markin, Site Vice President  
G. Bahn, Regulatory Assurance Manager (acting)  
P. Prater, Training Director (acting)  
D. Thomas III, Operations Training Manager (acting)  
J. Nelson, Initial Licensing Exam Coordinator  
E. Burns, Senior Operations Supervisor

#### U.S. Nuclear Regulatory Commission

R. Baker, Chief Examiner

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

#### Opened, Closed, and Discussed

None

### **LIST OF DOCUMENTS REVIEWED**

AR [Action Request] 02484471; Procedure Revisions ID'd During ILT 14-01 NRC Test Prep

### **LIST OF ACRONYMS USED**

ADAMS	Agencywide Documents Access and Management System
CFR	<i>Code of Federal Regulations</i>
JPM	Job Performance Measure
NRC	U.S. Nuclear Regulatory Commission
PARS	Publicly Available Records System
RO	Reactor Operator
SRO	Senior Reactor Operator



## SIMULATION FACILITY REPORT

Facility Licensee: Dresden Nuclear Power Station, Units 2 and 3

Facility Docket No: 50-237; 50-249

Operating Tests Administered: April 6 – 14, 2013

The following documents observations made by the NRC examination team during the initial operator license examination. These observations do not constitute audit or inspection findings and are not, without further verification and review, indicative of non-compliance with 10 CFR 55.45(b). These observations do not affect NRC certification or approval of the simulation facility other than to provide information which may be used in future evaluations. No licensee action is required in response to these observations.

During the conduct of the simulator portion of the operating tests, the following items were observed:

ITEM	DESCRIPTION
Issue Resetting ½ Scram following an IRM HI-HI Trip	During performance of a dynamic scenario, the crew was unable to reset a half scram generated by an IRM HI-HI trip (once the condition had been cleared by ranging the IRM up), unless the backpanel trips were reset. This particular deficiency in the simulator Training Load being used for the ILT examination was previously identified in Simulator Work Request #15178, and has been corrected for subsequent Training Loads used in Requal training. This anomaly did not adversely impact the completion of the scenario used for the ILT examination, as the next event involved inserting a full manual reactor scram.
Failure of the synchroscope selector switch for Breaker TR-22 to Bus 21	During performance of a simulator JPM, for the Breaker TR-22 to Bus 21, when repositioned to ON, failed to energize the synchronizing relays for closing circuit breaker. The JPM was stopped and the licensee identified that the deficiency was isolated to operation of the one synchroscope selector switch. Within 20 minutes, the condition was corrected by the licensee, as documented in Exelon Simulator Minor Maintenance Item #9868, and the ILT examination resumed.

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Hironori Peterson, Chief  
Operations Branch  
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