



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

March 7, 2023

David P. Rhoades  
Senior Vice President  
Constellation Energy Generation, LLC  
President and Chief Nuclear Officer (CNO)  
Constellation Nuclear  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2 NRC INITIAL  
LICENSE EXAMINATION REPORT 05000254/2023301; 05000265/2023301

Dear David Rhoades:

On February 14, 2023, the U.S. Nuclear Regulatory Commission (NRC) completed the initial operator licensing examination process for license applicants employed at your Quad Cities Nuclear Power Station. The enclosed report documents the results of those examinations. Preliminary observations noted during the examination process were discussed on February 6, 2023, with Jessy D. Fowler and other members of your staff. An exit meeting was conducted by telephone on February 21, 2023, between Drew Griffiths of your staff, and Ted Wingfield, Chief Operator Licensing Examiner, to review the proposed final grading of the written examination for the license applicants. The NRC also confirmed that the station submitted documentation, noting that there were no post-examination comments for consideration during NRC grading of the examination.

The NRC examiners administered an initial license examination operating test during the week of January 30, 2023. The written examination was administered by Quad Cities Nuclear Power Station training department personnel on February 7, 2023. Eleven Senior Reactor Operator applicants were administered license examinations. The results of the examinations were finalized on March 1, 2023. Eleven applicants passed all sections of their respective examinations. Eleven applicants were issued senior operator licenses.

The administered written examination and operating test, as well as documents related to the development and review (outlines, review comments and resolution, etc.) of the examination will be withheld from public disclosure until February 14, 2025.

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 at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations*, Part 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,



Signed by Nguyen, April  
on 03/07/23

April M. Nguyen, Chief  
Operations Branch  
Division of Operating Reactor Safety

Docket Nos. 50–254; 50–265  
License Nos. DPR–29; DPR–30

Enclosure:

1. Examination Report 05000254/2023301;  
05000265/2023301
2. Simulator Fidelity Report

cc: Distribution via LISTSERV®  
S. Mongreig, Training Manager,  
Quad Cities Nuclear Power Station

Letter to David Rhoades from April M. Nguyen dated March 7, 2023.

SUBJECT: QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2 NRC INITIAL LICENSE EXAMINATION REPORT 05000254/2023301; 05000265/2023301

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-254; 50-265

License No: DPR-29; DPR-30

Report No: 05000254/2023301; 05000265/2023301

Enterprise Identifier L-2023-OLL-0014

Licensee: Constellation Energy Generation, LLC

Facility: Quad Cities Nuclear Power Station, Units 1 and 2

Location: Cordova, IL

Dates: January 30, 2023 to February 14, 2023

Examiners: T. Wingfield, Operations Engineer, Chief Examiner  
T. Iskierka-Boggs, Senior Operations Engineer, Examiner  
J. Robbins, Senior Resident Inspector, Examiner

Approved by: A. Nguyen, Chief  
Operations Branch  
Division of Operating Reactor Safety

## **SUMMARY OF FINDINGS**

ER 05000254/2023301(DORS); 05000265/2023301(DORS); 01/30/2023–02/14/2023;  
Constellation Energy Generation, LLC; Quad Cities Nuclear Power Station, Units 1 and 2; 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 12.

### Examination Summary:

Eleven applicants passed all sections of their respective examinations. Eleven applicants were  
issued senior operator licenses. (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 12, to develop, validate, administer, and grade the written examination and operating test. The written examination outlines were prepared by the NRC staff and were transmitted to the facility licensee's staff. Members of the facility licensee's staff developed the operating test outlines and developed the written examination and operating test. The NRC examiners validated the proposed examination during the week of January 2, 2023, with the assistance of members of the facility licensee's staff. During the onsite validation week, the examiners audited three senior reactor operator 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 and dynamic simulator scenarios, during the period of January 30, 2023, through February 4, 2023. The facility licensee administered the written examination on February 7, 2023.

##### 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 written examination were made in accordance with NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," and documented on Form 2.3-5, "Written Examination Review Worksheet." The Form 2.3-5, the written examination outlines (Form 4.1-BWR Boiling-Water Reactor Examination Outline and Form 4.1-COMMON Common Examination Outline), and both the proposed and final written examinations, will be 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 February 14, 2025, (ADAMS Accession Numbers ML22125A066, ML22125A065, ML22125A064, and ML22125A067 respectively).

On February 14, 2023, the licensee submitted documentation noting that there were no post-examination comments for consideration by the NRC examiners when grading the written examination.

The NRC examiners graded the written examination on February 14, 2023, 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. Less than 20 percent of the proposed operating test portion of the examination was determined to be unsatisfactory and required modification or replacement.

Changes made to the operating test portion of the examination were made in accordance with NUREG–1021, "Operator Licensing Examination Standards for Power Reactors," and documented on Form 2.3-3, "Operating Test Review Worksheet." The Form 2.3-3, the operating test outlines (Form 3.2-1 Administrative Topics Outline, Form 3.2-2 Control Room and In-Plant Systems Outline, and Form 3.3-1 Scenario Outlines), and both the proposed and final as administered dynamic simulator scenarios and JPMs will be available electronically in the NRC Public Document Room, or from the Publicly Available Records component of NRC's ADAMS on February 14, 2025, (ADAMS Accession Numbers ML22125A066, ML22125A065, ML22125A064, and ML22125A067 respectively).

The NRC examiners completed operating test grading on February 21, 2023.

(3) Examination Results

Eleven applicants at the Senior Reactor Operator (SRO) level were administered written examinations and operating tests. Eleven applicants passed all portions of their examinations and were issued their operating licenses on March 1, 2023.

.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–1021, "Operator Licensing Examination Standards for Power Reactors," to determine acceptability of the licensee's examination security activities.

b. Findings

None.

## 4OA6 Meetings

### .1 Debrief

The chief examiner presented the examination team's preliminary observations and findings on February 6, 2023, to Mr. J. Fowler and other members of the Quad Cities Nuclear Power Station Operations and Training Department staff.

### .2 Exit Meeting

The chief examiner conducted an exit meeting on February 21, 2023, with Drew Griffiths, Plant Manager, by telephone. The NRC's final disposition of the station's grading of the written examination was discussed during the telephone discussion. The chief examiner asked the licensee whether any of the retained submitted 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.

ATTACHMENT: SUPPLEMENTAL INFORMATION



## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee

S. Mongreig, Senior Manager Site Training  
B. Nichols, Operations Training Manager  
D. Griffiths, Plant Manager  
D. Carrick, Director Site Operations  
R. Merema, Shift Operations Superintendent  
M. Humphrey, Regulatory Assurance Manager  
J. Fowler, Operations Training  
T. Resig, Operations Training, Initial License Training Lead  
S. Sullivan, Initial License Training, Examination Author

#### U.S. Nuclear Regulatory Commission

T. Wingfield, Chief Examiner  
T. Iskierka-Boggs, Senior Examiner  
J. Robbins, Examiner  
C. Hunt, Senior Resident Inspector  
Z. Coffman, Resident Inspector

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

#### Opened, Closed, and Discussed

None

### **LIST OF ACRONYMS USED**

ADAMS	Agencywide Document Access and Management System
NRC	U.S. Nuclear Regulatory Commission

## SIMULATOR FIDELITY REPORT

Facility Licensee: Quad Cities Nuclear Power Station

Facility Docket No: 50-254; 50-265

Operating Tests Administered: January 30, 2023, through February 4, 2023

The following documents observations made by the U.S. Nuclear Regulatory Commission 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 Title 10 of the *Code of Federal Regulations*, Part 55.45(b). These observations do not affect U.S. Nuclear Regulatory Commission 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
None	N/A