



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

April 29, 2024

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

SUBJECT: BRAIDWOOD STATION, UNITS 1 AND 2 - NRC INITIAL LICENSE
EXAMINATION REPORT 05000456/2024301; 05000457/2024301

Dear David Rhoades:

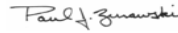
On April 5, 2024, the U.S. Nuclear Regulatory Commission (NRC) completed the initial operator licensing examination process for license applicants employed at your Braidwood Station. The enclosed report documents the results of those examinations. Preliminary observations noted during the examination process were discussed on March 25, 2024, with John Taff, Operations Training Manager, and other members of your staff. An exit meeting was conducted by Microsoft Teams meeting on April 19, 2024, between Adam Schuerman, of your staff and James Nance, Chief Operator Licensing Examiner, to review the proposed final grading of the written examination for the license applicants.

The NRC examiners administered an initial license examination operating test during the week of March 18, 2024. The written examination was administered by Braidwood Station training department personnel on March 27, 2024. Ten Senior Reactor Operator and four Reactor Operator applicants were administered license examinations. The results of the examinations were finalized on April 25, 2024. Fourteen applicants passed all sections of their respective examinations. Ten were issued senior operator licenses and four were issued operator licenses.

The as-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 April 5, 2026. The enclosure contains details of this report.

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 Zurawski, Paul
on 04/29/24

Paul J. Zurawski, Chief
Operations Branch
Division of Operating Reactor Safety

Docket Nos. 50-456 and 50-457
License Nos. NPF-72 and NPF-77

Enclosure:

1. Examination Report 05000456/2024301;
05000457/2024301
2. Simulator Fidelity Report

cc: Distribution via LISTSERV®
V. Ferguson, Senior Manager Site
Training

Letter to David Rhoades from Paul J. Zurawski dated April 29, 2024.

SUBJECT: BRAIDWOOD STATION, UNITS 1 AND 2 - NRC INITIAL LICENSE EXAMINATION REPORT 05000456/2024301; 05000457/2024301

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-456 and 50-457

License No: NPF-72 and NPF-77

Report No: 05000456/2024301 and 05000457/2024301

Enterprise Identifier L-2024-OLL-0004

Licensee: Constellation Energy Generation, LLC

Facility: Braidwood Station

Location: Braceville, IL

Dates: March 18, 2024, to April 5, 2024

Examiners: J. Nance, Operations Engineer, Chief Examiner
B. Bergeon, Senior Operations Engineer, Examiner
N. Hernandez, Senior Operations Engineer, Region IV
T. Iskierka-Boggs, Senior Operations Engineer, Examiner
J. Robbins, Senior Resident Inspector, Examiner

Approved by: Paul J. Zurawski, Chief
Operations Branch
Division of Operating Reactor Safety

SUMMARY OF FINDINGS

ER 05000456/2024301; 05000457/2024301; BRAIDWOOD STATION UNITS 1 AND 2. Initial License Examination Report.

The announced initial operator licensing examination was conducted by regional Nuclear Regulatory Commission (NRC) examiners in accordance with the guidance of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 12.

Examination Summary:

Fourteen of fourteen applicants passed all sections of their respective examinations. Ten applicants were issued senior operator licenses, and four applicants were issued operator licenses. (Section 4OA5.1).

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 February 12, 2024, with the assistance of members of the facility licensee's staff. During the on-site validation week, the examiners audited all 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 March 18, 2024 through March 22, 2024. The facility licensee administered the written examination on March 27, 2024.

b. Findings

None.

(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.

During validation of the written examination, several questions were modified or replaced. 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, 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 April 5, 2026 (ADAMS Accession Numbers ML22251A192, ML22251A191, ML22251A190, ML22251A194 respectively).

The NRC examiners graded the written examination on April 16, 2024, 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.

During the validation of the operating test, several Job Performance Measures (JPMs) were modified or replaced, and some modifications were made to the dynamic simulator scenarios. 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, 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 April 5, 2026 (ADAMS Accession Numbers ML22251A192, ML22251A191, ML22251A190, ML22251A194 respectively).

The NRC examiners completed operating test grading on April 24, 2024. Post-examination analysis revealed generic weaknesses in applicant performance in the areas of Technical Specifications, transferring to cold leg recirculation, reviewing guidance when manually withdrawing control rods in a critical reactor, and in general remembering and understanding the interlocks for various pumps and valves.

(3) Examination Results

Ten applicants at the Senior Reactor Operator (SRO) level and four applicants at the Reactor Operator (RO) level were administered written examinations and operating tests. Fourteen applicants passed all portions of their examinations and were issued their respective operating licenses on April 25, 2024.

.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* (10 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

There was one instance identified during the administration of Administrative JPMs that the room being used had not been properly cleared as required by NUREG-1021, Rev.12. There was a notebook with many pages of handwritten notes documenting

systems, procedures and responses to events resting out on top of the bookshelf in the back of the room and there were also several wallcharts that were on the floor picture side facing outward that were not completely covered. During the administration of the various Administrative JPMs in the improperly cleared room, the applicants were properly sequestered by either a qualified facility sequester, or an NRC Examiner. The Facility Representative walked down the room that was going to be used the following day for the last Administrative JPM and no issues were identified. None of the identified issues resulted in a violation of 10 CFR 55.49 as they did not affect the integrity of the examination nor compromise the fair and equitable administration of the operating test to the candidates.

4OA6 Meetings

.1 Debrief

The chief examiner presented the examination team's preliminary observations and findings on March 25, 2024, to John Taff, Operations Training Manager and other members of the Braidwood Station Operations and Training Department staff.

.2 Exit Meeting

The chief examiner conducted an exit meeting on April 19, 2024, with A. Schuerman, Site Vice President, by Microsoft Teams. The NRC's final disposition of the station's grading of the written examination and post-examination comments were disclosed and discussed during the meeting. 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

A. Schuerman, Site Vice President
V. Ferguson, Senior Manager Site Training
J. Taff, Operations Training Manager
A. Siebert, Facility Representative
K. Day, Lead Exam Developer

U.S. Nuclear Regulatory Commission

A. Muneeruddin, Acting Senior Resident Inspector
P. Smagacz, Resident Inspector
P. Zurawski, Branch Chief
J. Nance, Chief Examiner
B. Bergeon, Senior Operations Engineer
N. Hernandez, Senior Operations Engineer, Region IV
T. Iskierka-Boggs, Senior Operations Engineer
J. Robbins, Senior 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
RO	Reactor Operator
SRO	Senior Reactor Operator

SIMULATION FACILITY FIDELITY REPORT

Facility Licensee: Braidwood Station, Units 1 and 2

Facility Docket No: 50-456 and 50-457

Operating Tests Administered: March 18, 2024 through March 22, 2024

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
None	N/A