



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

February 6, 2018

Mr. Daniel G. Stoddard
Senior Vice President and Chief Nuclear Officer
Dominion Energy, Inc.
Innsbrook Technical Center
5000 Dominion Blvd.
Glen Allen, VA 23060-6711

**SUBJECT: MILLSTONE POWER STATION, UNIT 3 – INITIAL OPERATOR LICENSING
EXAMINATION REPORT 05000423/2017301**

Dear Mr. Stoddard:

On December 11, 2017, the U.S. Nuclear Regulatory Commission (NRC) completed an examination at Millstone Power Station, Unit 3. The enclosed examination report documents the examination results, which were discussed on January 4, 2018, with Messrs. Jeffrey Stafford, Michael O'Conner, and other members of your staff.

The examination included the evaluation of four applicants for reactor operator licenses, two 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 all of the applicants satisfied the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 55, and the appropriate licenses were issued on January 4, 2018.

No findings were identified during this examination.

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 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

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

Docket No. 50-423
License No. NPF-49

Enclosure:
Examination Report 05000423/2017301
w/Attachment: Supplementary Information

cc w/encl: Distribution via ListServ

SUBJECT: MILLSTONE POWER STATION, UNIT 3 – INITIAL OPERATOR LICENSING EXAMINATION REPORT 05000423/2017301 dated February 6, 2018

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

Docket: 50-423

License: NPF-49

Report: 05000423/2017301

Licensee: Dominion Energy Connecticut, Inc. (Dominion)

Facility: Millstone Power Station, Unit 3

Location: P.O. Box 128
Waterford, CT 06385

Dates: December 3 – 8, 2017 (Operating Test Administration)
December 11, 2017 (Written Examination Administration)
December 13, 2017 (Licensee Submitted Post Exam Package)
December 21, 2017 (NRC Examination Grading)
January 4, 2018 (Licenses Issued)

Examiners: P. Presby, Chief Examiner, Operations Branch
T. Setzer, Chief Examiner - Under Instruction, Senior Project Engineer,
Division of Reactor Projects
P. Ott, Operations Engineer

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

SUMMARY

ER 05000423/2017301; 12/03/2017 – 12/11/2017; Millstone Power Station, Unit 3; Initial Operator Licensing Examination Report

Three NRC examiners evaluated the competency of four applicants for reactor operator licenses, two applicants for instant senior reactor operator licenses, and three applicants for upgrade senior reactor operator licenses at Millstone Power Station, Unit 3. The facility licensee developed the examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 11. The written examination was administered by the facility on December 11, 2017. NRC examiners administered the operating tests on December 3–8, 2017. The NRC examiners determined that all of the 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 nine 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 a sample 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 December 11, 2017, the licensee proctored the administration of the written examinations to all nine applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on December 13, 2017.

The NRC examination team administered the various portions of the operating examination to all nine applicants on December 3–8, 2017. The four applicants for reactor operator licenses participated in two dynamic simulator scenarios, in a control room and facilities walkthrough test consisting of eleven system tasks, and an administrative test consisting of four administrative tasks. The two applicants seeking an instant senior reactor operator license participated in two 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

All of the applicants passed all parts of the operating test. For the written examinations, the reactor operator applicants' average score was 93.6 percent and ranged from 92.0 to 94.6 percent, the senior operator applicants' average score was 95.1 percent and ranged from 93.3 to 98.6 percent. The overall written examination average was 94.4 percent. The text of the examination questions may be accessed in the ADAMS system under the accession numbers noted in Attachment 1.

The NRC examiners completed the final grading of the written examination on December 21, 2017, 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 both the written and operating examination in ADAMS to the public will be delayed for two years.

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 two questions that met these criteria and submitted the analysis to the chief examiner. This analysis concluded that both questions (exam questions #12 and #77) were acceptable but difficult (LOD 4). These questions were therefore determined to be valid.

The licensee did not submit any post-examination comments.

.3 Initial Licensing Examination Development

a. Examination Scope

Dominion 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 developed the written exam outline in accordance with NUREG-1021, Revision 11, and submitted it to Dominion on May 23, 2017. Dominion submitted the operating examination outline on July 7, 2017. The chief examiner reviewed the outlines against the requirements of NUREG-1021, and provided comments to the licensee. Dominion submitted the draft examination package on September 20, 2017. The chief examiner reviewed the draft examination package against the requirements of NUREG-1021, and provided comments to the licensee on the examination on October 30, 2017. The NRC conducted an onsite validation of the operating examinations and provided further comments during the week of September 25, 2017. The licensee satisfactorily completed comment resolution on November 27, 2017.

b. Findings

No findings were identified.

The NRC approved the initial examination outline and advised the licensee to proceed with the operating examination development. The examiners determined that the written and operating examinations initially submitted by the licensee were within the range of acceptability expected for a proposed examination.

.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 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

No findings were identified

4OA6 Meetings, Including Exit

The chief examiner presented the examination results to Messrs. Jeffrey Stafford, Michael O'Conner, and other members of the licensee's management staff on January 4, 2018. The licensee acknowledged the findings presented.

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

ATTACHMENT: SUPPLEMENTARY INFORMATION

SUPPLEMENTARY INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

E. Brodeur, Superintendent Nuclear Operations - Unit 3
W. Forrestt, Senior Instructor Nuclear Operations
J. Go, Supervisor Nuclear Training
D. Minnich, Instructor Contractor
B. Royce, Senior Instructor Nuclear Operations
J. Stafford, Manager Nuclear Training
C. Walsh, Superintendent Nuclear Training Operations

NRC Personnel

P. Ott, Operations Engineer
P. Presby, Senior Operations Engineer
T. Setzer, Senior Project Engineer

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Opened and Closed

None

Closed

None

Discussed

None

ADAMS DOCUMENTS REFERENCED

Accession No. ML18029A643	FINAL-Written Exam (Note: In accordance with current NRC policy, the release of this written examination in ADAMS to the public will be delayed for two years.)
Accession No. ML18029A662	FINAL-Operating Exam (Note: In accordance with current NRC policy, the release of this operating examination in ADAMS to the public will be delayed for two years.)