



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

March 27, 2018

Mr. Mano Nazar
President and Chief Nuclear Officer
Nuclear Division
NextEra Energy Seabrook, LLC
Mail Stop: EX/JB
700 Universe Blvd.
Juno Beach, FL 33408

SUBJECT: SEABROOK STATION UNIT NO. 1 – INITIAL OPERATOR LICENSING
EXAMINATION REPORT 05000443/2018301

Dear Mr. Nazar:

On March 1, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an examination at Seabrook Station Unit No. 1. The enclosed examination report documents the examination results, which were discussed on March 22, 2018, with Mr. D. Ritter, Training Manager, and others of your staff.

The examination included the evaluation of one applicant for a reactor operator license, six applicants for instant senior reactor operator licenses, and two applicants for senior reactor operator upgrade 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 March 22, 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

M. Nazar

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Docket No. 50-443
License No. NPF-86

Enclosure:
Examination Report 05000443/2018301
w/Attachment: Supplementary Information

cc w/encl: Distribution via ListServ

SUBJECT: SEABROOK STATION UNIT NO.1 – INITIAL OPERATOR LICENSING EXAMINATION REPORT 05000443/2018301 DATED MARCH 27, 2018

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

Docket: 50-443

License: NPF-86

Report: 05000443/2018301

Enterprise Identifier: L-2018-OLL-0018

Licensee: NextEra Energy Seabrook, LLC (NextEra)

Facility: Seabrook Station Unit No. 1

Location: Seabrook, NH 03874

Dates: February 26, 2018 – March 1, 2018 (Operating Test Administration)
March 6, 2018 (Written Examination Administration)
March 13, 2018 (Licensee Submitted Post Exam Package)
March 19, 2018 (NRC Examination Grading)
March 22, 2018 (Licenses Issued)

Examiners: D. Silk, Chief Examiner, Operations Branch
J. D'Antonio, Senior Operations Engineer
P. Presby, Senior Operations Engineer
P. Ott, Operations Engineer

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

SUMMARY

ER 05000443/2018301; 02/26/2018 – 03/1/2018; Seabrook Station Unit No. 1; Initial Operator Licensing Examination Report.

Four NRC examiners evaluated the competency of one reactor operator applicant, six applicants for instant senior reactor operator licenses, and two applicants for senior reactor operator upgrade licenses at Seabrook Station Unit No. 1. The facility licensee developed the examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 11. The NRC examiners administered the operating tests on February 26, 2017 – March 1, 2018. The written examination was administered by the facility on March 6, 2018. The NRC examiners determined that all applicants satisfied the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 55 and the appropriate licenses have been issued.

No findings were identified.

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA5 Other Activities (Initial Operator License Examination)

.1 License Applications

a. Scope

The examiners reviewed the license applications submitted by the facility 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 subject applicant's qualifications in detail to confirm the accuracy of the applications. This audit focused on the applicant's experience and control manipulations that provided significant reactivity changes.

b. Findings

No findings were identified.

.2 Operator Knowledge and Performance

a. Examination Scope

On March 6, 2018, 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 March 13, 2018.

The NRC examination team administered the various portions of the operating examination to the applicants on February 26, 2018 – March 1, 2018. The one applicant seeking a reactor operator license participated in two dynamic simulator scenarios, a control room and facilities walkthrough test consisting of 11 system tasks, and an administrative test consisting of four tasks. The six applicants seeking an instant senior reactor operator license participated in three dynamic simulator scenarios, a control room and facilities walkthrough test consisting of ten system tasks, and an administrative test consisting of five tasks. The two applicants seeking senior reactor operator upgrade 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 tasks.

b. Findings

All of the applicants passed all parts of the examination. For the written examinations, the overall examination average score was 92.0 percent and ranged from 86.0 to 97.0 percent. The average scores for the reactor operator and senior reactor operation portions of the exam were 92.3 and 91.0 percent, respectively. The text of the examination questions and the operating test may be accessed in the ADAMS system under the accession numbers noted in Attachment 1. In accordance with current NRC

policy, the release of the examination material in ADAMS to the public will be delayed for approximately two and a half years from the date of this report.

The NRC examiners completed the final grading of the written examination on March 14, 2018, and conducted a review of each missed question to determine the accuracy and validity of the examination questions. 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. The licensee did not submit any post-examination comments.

.3 Initial Licensing Examination Development

a. Examination Scope

The facility licensee 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 provided the facility licensee with the written exam outline on August 1, 2017. The facility licensee submitted operating examination outlines on October 2, 2017. The chief examiner reviewed the outlines against the requirements of NUREG-1021, and provided comments to the licensee. The facility licensee submitted the draft examination package on January 2, 2018. The chief examiner reviewed the draft examination package against the requirements of NUREG-1021, and provided comments to the licensee. The NRC conducted an onsite validation of the operating examinations and provided further comments during the week of January 8, 2018. The licensee satisfactorily completed comment resolution for the operating test on February 12, 2018, and completed resolution of the written examination comments on February 22, 2018.

b. Findings

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.

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 weeks. Several issues were identified and are noted in Attachment 2 of the report.

b. Findings

No findings were identified.

.5 Examination Security

a. Examination Scope

The examiners reviewed the examination security protocols for this examination effort 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.

On January 25, 2018, a potential exam security issue was identified by the licensee (2254051-05). An examination validator made a comment related to the initial exam content during a licensed operator requalification training session that he was attending. Although the individual did not mention any specifics, someone could have inferred that some part of the initial examination was related to the requalification topic that was being discussed during the requalification training session. The licensee then promptly informed the NRC. Although no details of the initial exam were mentioned, the NRC directed the licensee to replace a job performance measure that was associated with the requalification training topic of that day.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

The chief examiner presented the examination results to Mr. D. Ritter, Training Manager, and other members of the licensee on March 22, 2018. The licensee acknowledged the findings presented.

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

Attachments:

1. Supplementary Information
2. Simulator Fidelity Report

SUPPLEMENTARY INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

C. Adams, Training Supervisor

S. Riley, Exam Developer

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

NONE

Closed

NONE

Discussed

NONE

ADAMS DOCUMENTS REFERENCED

Accession No. ML18081A250 – 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 and a half years.)

Accession No. ML18081A256 – 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 and a half years.)

Facility Licensee: NextEra – Seabrook
 Facility Docket No.: 50-433
 Operating Test Administered 2/26/2018-
 on: 3/1/2018

This form is to be used only to report observations. These observations do not constitute audit or inspection findings and, without further verification and review in accordance with IP 71111.11, are not indicative of noncompliance with 10 CFR 55.46. No licensee action is required in response to these observations.

While conducting the simulator portion of the operating tests, examiners observed the following items:

Item	Description
1	Accumulator pressure response during venting. (2254051-01)
2	CRDM Temperature Indication. (2254051-02)
3	Evaluate Response to Charging Pump Trip. (2254051-03)
4	Evaluate Response for FRV with failure of SG Pressure Instrument. (2254051-04)