



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

October 10, 2018

Mr. Richard Bologna
Site Vice President
First Energy Nuclear Operating Company
Beaver Valley Power Station
P. O. Box 4
Shippingport, PA 15077-0004

SUBJECT: BEAVER VALLEY POWER STATION UNIT 1 – INITIAL OPERATOR
LICENSING EXAMINATION REPORT 05000334/2018301

Dear Mr. Bologna:

On September 21, 2018, the U.S. Nuclear Regulatory Commission (NRC) completed an examination at Beaver Valley Power Station Unit 1. The enclosed examination report documents the examination results, which were discussed on October 10, 2018, with Mr. William Cothen, Manager, Site Training, and others of your staff.

The examination included the evaluation of seven applicants for reactor operator licenses and five applicants for instant 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, except for those who were granted deferrals, satisfied the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 55, and the appropriate licenses were issued on October 10, 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

R. Bologna

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Docket No. 50-334
License No. DPR-66

Enclosure:
Examination Report 05000334/2018301

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SUBJECT: BEAVER VALLEY POWER STATION UNIT 1 – INITIAL OPERATOR
 LICENSING EXAMINATION REPORT 05000334/2018301 DATED
 OCTOBER 10, 2018

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

Docket: 50-334

License: DPR-66

Report: 05000334/2018301

Enterprise Identifier: L-2018-OLL-0023

Licensee: FirstEnergy Nuclear Operating Company (FENOC)

Facility: Beaver Valley Power Station Unit 1

Location: Shippingport, PA 15077

Dates: September 17 – 21, 2018 (Operating Test Administration)
September 26, 2018 (Written Examination Administration)
October 3, 2018 (Licensee Submitted Post Exam Package)
October 4, 2018 (NRC Examination Grading)
October 10, 2018 (Licenses Issued)

Examiners: D. Silk, Chief Examiner, Operations Branch
T. Fish, Senior Operations Engineer
P. Ott, Operations Engineer
M. Patel, Operations Engineer
T. Wingfield, Management and Programs Analyst (Observer)

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

Enclosure

SUMMARY

ER 05000334/2018301; 09/17/2018 – 09/26/2018; Beaver Valley Power Station Unit 1; Initial Operator Licensing Examination Report.

Four NRC examiners evaluated the competency of seven reactor operator applicants and five applicants for instant senior reactor operator licenses at the Beaver Valley Power Station Unit 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 September 17 – 21, 2018. The written examination was administered by the facility on September 26, 2018. The NRC examiners determined that all applicants, except those who were granted deferrals, 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. The audit also focused on the applicants' experience and control manipulations that provided significant reactivity changes.

b. Findings

No findings were identified.

.2 Operator Knowledge and Performance

a. Examination Scope

On September 26, 2018, the licensee proctored the administration of the written examinations to all 12 applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on October 3, 2018.

The NRC examination team administered the various portions of the operating examination to the applicants on September 17 - 21, 2018. The seven applicants seeking a reactor operator license participated in either two or three dynamic simulator scenarios, a control room and facilities walkthrough test consisting of 11 system tasks, and an administrative test consisting of four tasks. The five 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.

b. Findings

All of the applicants passed all parts of the examination. For the written examinations, the overall examination average score was 86.9 percent and ranged from 81.3 to 94.0 percent. The average scores for the reactor operator and senior reactor operation portions of the exam were 87.0 and 86.8 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 October 4, 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 seven 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 November 15, 2017. The facility licensee submitted operating examination outlines on April 19, 2018. 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 July 3, 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 August 20, 2018. The licensee satisfactorily completed comment resolution for the operating test on August 28, 2018, and completed resolution of the written examination comments on September 7, 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.

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.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

The chief examiner presented the examination results to William Cothen, Manager, Site Training, and other members of the licensee on October 10, 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

SUPPLEMENTARY INFORMATION**KEY POINTS OF CONTACT**Licensee Personnel

W. Cothen, Manager Site Training
T. Gaydosik, Fleet Exam Team Lead
P. Eisenman, Exam Developer
M. Klingensmith, Exam Developer

ITEMS OPENED, CLOSED, AND DISCUSSEDOpened

NONE

Closed

NONE

Discussed

NONE

ADAMS DOCUMENTS REFERENCED

Accession No. ML18275A361 – 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. ML18275A363 – 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.)