



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION I  
2100 RENAISSANCE BLVD., SUITE 100  
KING OF PRUSSIA, PA 19406-2713

January 3, 2017

Mr. Marty Richey  
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 - NRC INITIAL OPERATOR  
LICENSING EXAMINATION REPORT 05000334/2016302

Dear Mr. Richey:

On November 9, 2016, 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 December 15, 2016, with Mr. D. Gibson, Site Training Manager, and other members of your staff.

The examination included the evaluation of 12 applicants for reactor operator licenses, and 10 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 10. The license examiners determined that all of the applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses were issued on December 15, 2016.

No findings were identified during this examination.

In accordance with Title 10 of "*Code of Federal Regulation (CFR)*," 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's Agencywide Documents Access Management System (ADAMS). ADAMS is accessible from the NRC website <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

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

M. Richey

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

Enclosure: Examination Report 05000334/2016302  
w/Attachment: Supplementary Information

cc w/encl: Distribution via ListServ

Mr. Marty Richey  
 Site Vice President  
 First Energy Nuclear Operating Company  
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Sincerely,  
 /RA/  
 Donald E. Jackson, Chief  
 Operations Branch  
 Division of Reactor Safety

Distribution: see next page.

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DATE	01/03/17	01/03/17			

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Letter to Mr. Marty Richey from Mr. Donald E. Jackson.

SUBJECT: BEAVER VALLEY POWER STATION, UNIT 1 - NRC INITIAL OPERATOR  
LICENSING EXAMINATION REPORT 05000334/2016302

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## EXAMINATION REPORT

### U.S. NUCLEAR REGULATORY COMMISSION REGION I

Docket: 50-334

License: DPR-66

Report : 05000334/2016302

Licensee: FirstEnergy Nuclear Operating Company (FENOC)

Facility: Beaver Valley Power Station, Unit 1

Location: Shippingport, PA 15077

Dates: October 31 – November 9, 2016 (Operating Test Administration)  
November 14, 2016 (Written Examination Administration)  
November 22, 2016 (Licensee Submitted Post Exam Package)  
November 29, 2016 (NRC Examination Grading Completed)  
December 15, 2016 (Licenses Issued)

Examiners: D. Silk, Chief Examiner, Operations Branch  
T. Fish, Senior Operations Engineer, Operations Branch  
T. Dunn, Operations Engineer, Operations Branch  
M. Patel, Operations Engineer, Operations Branch  
N. Embert, Project Engineer, Technical Support and Assessment Branch  
C. Lally, Project Engineer, Technical Support and Assessment Branch  
R. Crews, Senior Reactor Technology Instructor

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

## SUMMARY

ER 05000334/2016302; 10/31/2016 – 11/14/2016; Beaver Valley Power Station, Unit 1; Initial Operator Licensing Examination Report

Seven NRC examiners evaluated the competency of 12 applicants for reactor operator licenses and 10 applicants for instant senior reactor operator licenses at Beaver Valley Power Station, Unit 1. The facility licensee developed the examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 10. The NRC examiners administered the operating tests on October 31 through November 9, 2016. The written examinations were administered by the facility on November 14, 2016. The NRC examiners determined that all of the applicants satisfied the requirements of 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 22 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 the eligibility of the applicants to confirm that they reflected the subject applicant's qualifications. This audit also focused on control manipulations that provided significant reactivity changes.

###### b. Findings

No findings were identified.

##### .2 Operator Knowledge and Performance

###### a. Examination Scope

On November 14, 2016, the licensee proctored the administration of the written examinations to all 22 applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on November 22, 2016.

The NRC examination team administered the various portions of the operating examination to all 22 applicants from October 31 through November 9, 2016. The 12 applicants for reactor operator licenses participated in two or three dynamic simulator scenarios, in a control room and facilities walkthrough test consisting of 11 system tasks, and an administrative test consisting of four administrative tasks. The 10 applicants seeking an instant senior reactor operator license participated in three dynamic simulator scenarios, a control room and facilities walkthrough test consisting of 10 system tasks, and an administrative test consisting of five administrative tasks.

###### b. Findings

All of the applicants passed all parts of the operating test and the written examination. For the written examinations, the reactor operator applicants' average score was 85.8 percent and ranged from 80.0 to 92.0 percent, the senior operator applicants' average score was 84.3 percent and ranged from 80.0 to 93.0 percent. The overall written examination average was 85.1 percent. The text of the examination questions and the licensee's post-examination comments may be accessed in the ADAMS system under the accession numbers noted in Attachment 1. In accordance with current NRC policy, the release of this written examination, post-examination comments, and the operating test 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 12 questions that met these criteria and submitted the analysis to the chief examiner. This analysis concluded that there were potential generic training program weaknesses that will be tracked by the corrective action program (CR 2016-13494).

The licensee submitted three post-examination question comments on November 22, 2016. The NRC reviewed the facility's post-exam comment submittal package and accepted facility recommendations on Questions 35, 42, and 71. For Questions 35 and 42, one of the distractors in each question was, after-the-fact, also determined to be a correct answer. For Question 71, it was also determined after-the-fact that the designated correct answer was incorrect and one of the distractors was correct. The answer key was changed so that for Question 35 choices "A" and "B" were accepted as correct responses. Question 42 was changed such that choices "B" and "C" were accepted as correct responses. Question 71 was changed so that "C" instead of "A" was the correct response. The text of the examination questions and the licensee's post-examination comments with the NRC resolutions may be accessed in the ADAMS system under the accession numbers noted in the Attachment 1. In accordance with current NRC policy the release of these documents will be delayed for two years.

.3 Initial Licensing Examination Development

a. Examination Scope

The facility licensee developed the examinations in accordance with NUREG-1021, Revision 10. All licensee facility training and operations staff involved in examination preparation and validation were listed on a security agreement. The facility licensee submitted both the written and operating examination outlines on July 29, 2016. 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 August 30, 2016. 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 September 12, 2016. The licensee satisfactorily completed comment resolution on the week of October 24, 2016.

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.

b. Findings

No findings were identified.

.5 Examination Security

a. Examination Scope

The examiners reviewed examination security for examination development and during both the onsite preparation week and examination administration week for compliance with NUREG-1021, Revision 10 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 Mr. D. Gibson, Site Training Manager, and other members of the licensee's management staff on December 15, 2016. The licensee acknowledged the findings presented.

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

ATTACHMENTS: SUPPLEMENTARY INFORMATION

**SUPPLEMENTARY INFORMATION**

**KEY POINTS OF CONTACT**

Licensee Personnel

P. Eisenmann, Staff Nuclear Operations Instructor - Exam Developer  
T. Gaydosik, Fleet Exam Development Lead  
D. Gibson, Manager Site Training  
M. Klingensmith, Staff Nuclear Operations Instructor - Exam Developer  
G. Pelka, Supervisor Licensed Operator Initial Training  
D. Ronnenberg, Superintendent Operations Training  
S. Snook, Shift Manager - Exam Facility Representative

**ITEMS OPENED, CLOSED, AND DISCUSSED**

Opened

NONE

Opened and Closed

NONE

Closed

NONE

Discussed

NONE

**ADAMS DOCUMENTS REFERENCED**

Accession No. ML16342C522 – FINAL-Written Exam  
Accession No. ML16342C521 – FINAL-Operating Exam  
Accession No. ML16342C520 – FINAL-Post Exam Comments, Resolutions, and Technical  
References

Note: In accordance with current NRC policy, these ADAMS records for the public will be  
delayed for two years.