



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415**

April 27, 2012

Mr. Paul A. Harden  
Site Vice President  
FirstEnergy Nuclear Operating Company  
Beaver Valley Power Station  
P. O. Box 4, Route 168  
Shippingport, PA 15077-0004

**SUBJECT: BEAVER VALLEY POWER STATION UNIT 1 - NRC INITIAL OPERATOR  
LICENSING EXAMINATION REPORT 05000334/2012301**

Dear Mr. Harden:

On April 16, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed an examination at Beaver Valley Power Station Unit 1. The enclosed report documents the examination findings, which were discussed on April 25, 2012, with Mr. W. Rudolph, Manager, Operations Training, and other members of your staff.

The examination included the evaluation of two applicants for reactor operator licenses, seven applicants for instant senior operator licenses, and one applicant for an upgrade senior operator license. The written and operating examinations were developed using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1. The license examiners determined that all ten of the applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses were issued on April 25, 2012.

No findings were identified during this examination.

In accordance with 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 document system Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams/web-based.html> (the Public Electronic Reading Room).

Sincerely,

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

Mr. Paul A. Harden  
Site Vice President  
FirstEnergy Nuclear Operating Company  
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Sincerely,

/RA/

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

DOCUMENT NAME: G:\DRS\Operations Branch\SILK\Exam FY12-BV1 Apr12(U01846)\BV1 EXAM REPORT.docx  
ADAMS PKG: ML113320121 ADAMS ACCESSION NUMBER: ML12121A019

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NAME	DSilk	DJackson			
DATE	4/26/12	4/27/12			

OFFICIAL RECORD COPY

P. Harden

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Enclosure:

NRC Initial Operator Licensing Examination Report 05000334/2012301  
w/Attachment: Supplemental Information

cc w/encl:

William J. Rudolph, II, Manager, Operations Training

cc w/encl: Distribution via ListServ

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**EXAMINATION REPORT**

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

Dockets: 50-334  
Licenses: DPR-66  
Report : 05000334/2012301  
Licensee: FirstEnergy Nuclear Operating Company (FENOC)  
Facility: Beaver Valley Power Station Unit 1  
Location: Shippingport, PA 15077  
Dates: 4/9-12/2012 (Operating Test Administration)  
4/16/2012 (Written Examination Administration)  
4/20/2012 (Licensee Submitted Post Exam Package)  
4/23/2012 (NRC Examination Grading)  
4/25/2012 (Licenses Issued)

Examiners: D. Silk, Chief Examiner, Operations Branch  
T. Fish, Senior Operations Engineer  
B. Fuller, Operations Engineer  
M. Patel, Operations Engineer

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

Enclosure

## **SUMMARY OF FINDINGS**

ER 05000334/2012301; 4/9/2012 – 4/16/2012; Beaver Valley Power Station, Unit 1; Initial Operator Licensing Examination Report.

NRC examiners evaluated the competency of two applicants for reactor operator licenses, seven applicants for instant senior operator licenses and one applicant for an upgrade senior operator license at Beaver Valley Power Station, Unit 1. The facility licensee developed the examinations using NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1. The written examination was administered by the facility on April 16, 2012. NRC examiners administered the operating tests on April 9-12, 2012. The license examiners determined that all ten of the applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued.

## REPORT DETAILS

### 4. OTHER ACTIVITIES (OA)

#### 4OA5 Other Activities (Initial Operator License Examination)

##### .1 License Applications

###### a. Examination Scope

The examiners reviewed all ten 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 all of the license applications in detail to confirm that they accurately reflected the subject applicant's qualifications. This audit 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 April 16, 2012, the licensee proctored the administration of the written examinations to all ten applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis to the NRC on April 20, 2012.

The NRC examination team administered the various portions of the operating examination to all ten applicants on April 9-12, 2012. The two applicants for reactor operator licenses participated in 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 seven applicants seeking an instant senior operator license participated in two or three 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 one applicant for an upgrade senior operator license participated in one dynamic simulator scenario, a control room and facilities walkthrough test consisting of five system tasks, and an administrative test consisting of five administrative tasks.

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b. Findings

All ten of the applicants passed both the written and operating portions of the examination. For the written examinations, the reactor operator applicants' average score was 87.3 percent and ranged from 86.7 to 88.0 percent, the senior operator applicants' average score was 91.9 percent and ranged from 88.0 to 95.0 percent. The overall written examination average was 91.0 percent.

The NRC examiners completed the final grading of the written examination on April 23, 2012, 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 this written examination will be delayed for two years. The text of the examination questions may be accessed in the ADAMS system under the accession number noted in the attachment after the two year delay.

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 four questions that met these criteria and submitted the analysis to the chief examiner. The licensee did not submit any post-examination question comments.

.3 Initial Licensing Examination Development

a. Examination Scope

The facility licensee developed the examination in accordance with NUREG-1021, Revision 9, Supplement 1. 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 January 17, 2012. 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 February 15, 2012. The chief examiner reviewed the draft examination package against the requirements of NUREG-1021, and provided comments to the licensee on the examination on February 24, 2012. The NRC conducted an onsite validation of the operating examinations and provided further comments during the week of March 12, 2012. The licensee satisfactorily completed comment resolution on March 28, 2012.

b. Findings

The NRC approved the initial examination outlines and advised the licensee to proceed with the examination development.

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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 requirements. Plans for simulator security and applicant control were reviewed and discussed with licensee personnel.

b. Findings

No findings were identified.

During scenario development, an individual crossed the posted security barriers. There was no compromise of exam material as the individual was immediately stopped and escorted out of the simulator. The individual saw no exam material and furthermore, the simulator was in standard training configuration at the time. The individual was coached about reading posted security signs. The licensee immediately informed the chief examiner about this incident. The licensee investigated the details of this incident and recorded the findings in Condition Report CR-2012-00412. The long term corrective action was to install locks on the simulator doors as an additional barrier to prevent inadvertent entries into the simulator in the future.

4OA6 Meetings, including Exit

The chief examiner presented the examination results to Mr. William Rudolph, Manager, Operations Training, and other members of the licensee's staff on April 25, 2012. The licensee acknowledged the findings presented.

Enclosure

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

ATTACHMENTS: SUPPLEMENTAL INFORMATION

Enclosure

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**ATTACHMENT**

**SUPPLEMENTAL INFORMATION**

**KEY POINTS OF CONTACT**

Licensee Personnel

W. Rudolph, Manager, Operations Training  
T. Gaydosik, Supervisor Initial Operator Training  
R. Brooks, Fleet Exam Development Lead  
I. Forbes, Exam Developer  
P. Eisenmann, Exam Developer

**ITEMS OPENED, CLOSED, AND DISCUSSED**

Opened

NONE

Closed

NONE

Discussed

NONE

**ADAMS DOCUMENTS REFERENCED**

Accession No. ML12111A222 – 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. ML12111A239 – FINAL-Operating Exam