



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
1600 EAST LAMAR BLVD  
ARLINGTON, TEXAS 76011-4511

March 19, 2013

Mr. Mark E. Reddemann  
Chief Executive Officer  
Energy Northwest  
P.O. Box 968 (Mail Drop 1023)  
Richland, WA 99352-0968

SUBJECT: COLUMBIA GENERATING STATION - NRC EXAMINATION REPORT  
05000397/2013301

Dear Mr. Reddemann:

On February 8, 2013, the U.S. Nuclear Regulatory Commission (NRC) completed an initial operator license examination at Columbia Generating Station. The enclosed report documents the examination results and licensing decisions. The preliminary examination results were discussed on February 8, 2013, with you and other members of your staff. A telephonic exit meeting was conducted on February 28, 2013, with Mr. R. Hayden, Exam Developer, who was provided the NRC licensing decisions.

The examination included the evaluation of five applicants for reactor operator licenses, six applicants for instant senior reactor operator licenses, and two applicants for upgrade senior reactor operator licenses. The license examiners determined that 12 of the 13 applicants satisfied the requirements of 10 CFR Part 55 and the appropriate licenses have been issued. There was one post examination comment submitted by your staff. Enclosure 1 contains details of this report and Enclosure 2 summarizes post examination comment resolution.

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 (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Vince Gaddy, Chief  
Operations Branch  
Division of Reactor Safety

M. Reddemann

- 2 -

Docket: 50-397

License: NPF-21

Enclosures:

1. NRC Examination Report 05000397/2013301
2. NRC Post Examination Comment Resolution

cc: Electronic Distribution for Columbia Generating Station

SUNSI Review Completed: SMG ADAMS: ☒ Yes ☐ No Initials: SMG  
☒ Publicly Available ☐ Non-Publicly Available ☐ Sensitive ☒ Non-Sensitive

**ADAMS ACCESSION NUMBER: ML13078A434**

SOE:OB	SOE:OB	SOE:TTC (TTC)	OE:OB	OE:OB
SGarchow	KClayton	RDeVercelly	CSteely	GApger
/RA/	/RA/	/RA/	/RA/	/RA/
3/13/13	3/13/13	3/14/13	3/13/13	3/14/13
C:PBA	C:OB			
WWalker	VGaddy			
/RA/	/RA/			
3/18/13	3/19/13			

OFFICIAL RECORD COPY T=Telephone E=E-mail F=Fax

**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION IV**

Docket: 50-397

License: NPF-21

Report: 05000397/2013301

Licensee: Energy Northwest

Facility: Columbia Generating Station

Location: Location: P.O. Box 968  
Richland, WA 99352-0968

Dates: February 1 – 8, 2013

Inspectors: S. Garchow, Chief Examiner, Senior Operations Engineer  
K. Clayton, Senior Operations Engineer  
R. DeVercelly, Senior Training Instructor (TTC)  
C. Steely, Operations Engineer  
G. Apger, Operations Engineer

Approved By: Vince Gaddy, Chief  
Operations Branch  
Division of Reactor Safety

## **SUMMARY OF FINDINGS**

ER05000397/2011301; February 1 – 8, 2013; Columbia Generating Station; Initial Operator Licensing Examination Report.

NRC examiners evaluated the competency of five applicants for reactor operator licenses, six applicants for instant senior reactor operator licenses and two applicants for upgrade senior reactor operator license at Columbia Generating Station.

The 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 licensee on February 1, 2013. NRC examiners administered the operating tests during the week of February 4, 2013.

The examiners determined that twelve of the thirteen applicants satisfied the requirements of 10 CFR Part 55, and the appropriate licenses have been issued.

A. NRC-Identified and Self-Revealing Findings

None.

B. Licensee-Identified Violations

None.

## REPORT DETAILS

### 4. OTHER ACTIVITIES (OA)

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

##### .1 License Applications

###### a. Scope

NRC examiners reviewed all license applications submitted to ensure each applicant satisfied relevant license eligibility requirements. Examiners also audited four 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 Examination Development

###### a. Scope

NRC examiners reviewed integrated examination outlines and draft examinations submitted by the licensee against the requirements of NUREG-1021. The NRC examination team conducted an onsite validation of the operating tests.

###### b. Findings

NRC examiners provided outline, draft examination and post-validation comments to the licensee. The licensee satisfactorily completed comment resolution prior to examination administration.

NRC examiners determined the written examinations and operating tests initially submitted by the licensee were within the range of acceptability expected for a proposed examination.

##### .3 Operator Knowledge and Performance

###### a. Scope

On February 1, 2013, the licensee proctored the administration of the written examinations to all 13 applicants. The licensee staff graded the written examinations, analyzed the results, and presented their analysis and post examination comments to the NRC on February 12, 2013.

The NRC examination team administered the various portions of the operating tests to all applicants on February 4 – 8, 2013.

b. Findings

No findings were identified.

Twelve of the 13 applicants passed the written examination and all parts of the operating test. The final written examinations and post examination analysis and comments may be accessed in the ADAMS system under the accession numbers noted in the attachment.

The examination team noted four generic weaknesses associated with applicant performance on the dynamic scenario, simulator JPM, and in-plant JPM sections of the operating tests. The applicants displayed a weakness in diagnosing integrated system response, annunciator prioritization, Emergency Operating Procedure implementation, and the instant senior operators had difficulty in locating some components in the plant and on control room back panels. Copies of all individual examination reports were sent to the facility Training Manager for evaluation and determination of appropriate remedial training.

.4 Simulation Facility Performance

a. Scope

The NRC examiners observed simulator performance with regard to plant fidelity during examination validation and administration.

b. Findings

No findings were identified.

.5 Examination Security

a. Scope

The NRC examiners reviewed examination security for examination development during both the onsite preparation week and examination administration week for compliance with 10 CFR 55.49 and NUREG-1021. 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 preliminary examination results to Messrs. M. Reddemann, Chief Executive Officer, G. Gettel, Vice-President Operations, C. Moon, Training Manager, and other members of the staff on February 8, 2013. A telephonic

exit was conducted on February 28, 2013 between Mr. Steve Garchow, Chief Examiner, and Mr. Ron Hayden, Exam Developer.

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

ATTACHMENT: SUPPLEMENTAL INFORMATION



## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### **Licensee Personnel**

R. Hayden, Exam Developer  
C. Maxwell, Operations Training Instructor

#### **NRC Personnel**

J. Groom, Senior Resident Inspector  
M. Hayes, Resident Inspector

### **ADAMS DOCUMENTS REFERENCED**

Accession No. ML13057A530 - FINAL WRITTEN EXAMS  
Accession No. ML13057A536 - FINAL OPERATING TEST  
Accession No. ML13056A520 - POST EXAM ANALYSIS-COMMENTS

### NRC Resolution to the Columbia Generating Station Post Examination Comment

A complete text of the licensee's post examination analysis and comments can be found in ADAMS under Accession Number ML13056A520.

#### **SRO QUESTION # 86**

**COMMENT:** The licensee recommended accepting distractor 'A' as correct instead of distractor 'B'. This question involved providing the applicant with a set of plant conditions, including the loss of normal reactor building ventilation. The applicant was then asked what procedure to use in order to recover from the loss of reactor building ventilation. The basis for the change is that the original correct answer was to use the normal system reactor building ventilation operating procedure, SOP-VHAC/RB-RESTART-QC. From the information in the stem, the normal ventilation was lost during the calibration of reactor building ventilation related instrumentation. Also provided in the stem was the "SEC PRESS DIFF PRESS HI" alarm has annunciated which is an entry condition to the Secondary Containment Emergency Operating Procedure. Because there is no information in the stem that the cause of the reactor building ventilation trip was due to the testing, the operators would be expected to go to using the Standby Gas Treatment System (SGTS). This would make distractor 'A' the correct answer.

**NRC RESOLUTION:** This question was based on an actual plant event at Columbia Generating Station when the normal reactor building ventilation was lost due to a calibration error while calibrating reactor building instrumentation. In the actual event, the control room crew was immediately made aware of the calibration error and that the error had been corrected. Based on this knowledge, the control room crew restarted the normal reactor building fans.

However, on the written exam, while the questions' stem did state the ventilation instruments were being calibrated, it did not include a statement as to the cause of the trip or that the cause had been corrected. Not knowing the cause or the status of the normal reactor building ventilation would force the control room crew to start the SGTS. Therefore, the NRC agrees the correct answer is 'A' and not 'B'.