



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
245 PEACHTREE CENTER AVENUE NE, SUITE 1200  
ATLANTA, GEORGIA 30303-1257

February 15, 2018

Tennessee Valley Authority  
ATTN: Mr. Anthony L. Williams  
Site Vice President  
Sequoyah Nuclear Plant  
P. O. Box 2000  
Soddy-Daisy, TN 37384-2000

**SUBJECT: SEQUOYAH NUCLEAR PLANT – NRC OPERATOR LICENSE EXAMINATION  
REPORTS 05000327/2017301 AND 05000328/2017301**

Dear Mr. Williams:

During the period December 4 - 12, 2017, the Nuclear Regulatory Commission (NRC) administered operating tests to employees of your company who had applied for licenses to operate the Sequoyah Nuclear Plant, Units 1 and 2. At the conclusion of the tests, the examiners discussed preliminary findings related to the operating tests and the written examination submittal with those members of your staff identified in the enclosed report. The written examination was administered by your staff on December 20, 2017.

All the applicants passed both the operating test and written examination. There was one post-administration comment concerning the written examination. This comment, and the NRC resolution of this comment, is summarized in Enclosure 2. A Simulator Fidelity Report is included in this report as Enclosure 3.

The initial examination submittal was within the range of acceptability expected for a proposed examination. All examination changes agreed upon between the NRC and your staff were made according to NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 11.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosures will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Website at <http://www.nrc.gov/reading-rm.adams.html> (the Public Electronic Reading Room).

If you have any questions concerning this letter, please contact me at (404) 997-4551 (Internet E-mail: [Gerald.McCoy@nrc.gov](mailto:Gerald.McCoy@nrc.gov)).

Sincerely,

*/RA/*

Gerald J. McCoy, Chief  
Operations Branch 1  
Division of Reactor Safety

Docket No.: 50-327, 50-328  
License No. : DRP-77, DRP-79

Enclosures: 1. Report Details  
2. Facility Comments and NRC Resolution  
3. Simulator Fidelity Report

cc: Distribution via Listserv

SUBJECT: SEQUOYAH NUCLEAR PLANT – NRC OPERATOR LICENSE EXAMINATION  
 REPORTS 05000327/2017301 AND 05000328/2017301

Distribution:

N. Lacy, RII  
 G. McCoy, RII

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**U.S. NUCLEAR REGULATORY COMMISSION**

REGION II

Docket Nos.: 05000327, 05000328

License Nos.: DRP-77, DRP-79

Report Nos.: 05000327/2017301 and 05000328/2017301

Licensee: Tennessee Valley Authority

Facility: Sequoyah Nuclear Plant

Location: Soddy-Daisy, TN

Dates: Operating Test – December 4-12, 2017  
Written Examination – December 20, 2017

Examiners: N. Lacy, Chief Examiner, Senior Operations Engineer  
J. Bundy, Operations Engineer  
J. Kellum, Senior Reactor Engineer  
T. Stephen, Operations Engineer

Approved by: Gerald McCoy, Chief  
Operations Branch 1  
Division of Reactor Safety

## **SUMMARY**

ER 05000327/2017301 and 05000328/2017301; December 4-12, 2017 & December 20, 2017; Sequoyah Nuclear Plant; Operator License Examinations.

Nuclear Regulatory Commission (NRC) examiners conducted an initial examination in accordance with the guidelines in Revision 11 of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors." This examination implemented the operator licensing requirements identified in 10 CFR §55.41, §55.43, and §55.45, as applicable.

Members of the Sequoyah Nuclear Plant staff developed both the operating tests and the written examinations. The initial operating tests, written Reactor Operator (RO) examination, and written Senior Reactor Operator (SRO) examination submittals met the quality guidelines contained in NUREG-1021.

The NRC administered the operating tests during the period December 4-12, 2017. Members of the Sequoyah Nuclear Plant training staff administered the written examination on December 20, 2017. There were ten RO and two SRO applicants and all applicants passed both the operating test and written examination. All applicants were issued licenses commensurate with the level of examination administered.

There was one post-examination comment of an editorial nature and no changes were made to the final administered exam.

No findings were identified.

## REPORT DETAILS

### 4. OTHER ACTIVITIES

#### 4OA5 Operator Licensing Examinations

##### a. Inspection Scope

The NRC evaluated the submitted operating test by combining the scenario events and JPMs in order to determine the percentage of submitted test items that required replacement or significant modification. The NRC also evaluated the submitted written examination questions (RO and SRO questions considered separately) in order to determine the percentage of submitted questions that required replacement or significant modification, or that clearly did not conform with the intent of the approved knowledge and ability (K/A) statement. Any questions that were deleted during the grading process, or for which the answer key had to be changed, were also included in the count of unacceptable questions. The percentage of submitted test items that were unacceptable was compared to the acceptance criteria of NUREG-1021, "Operator Licensing Standards for Power Reactors."

The NRC reviewed the licensee's examination security measures while preparing and administering the examinations in order to ensure compliance with 10 CFR §55.49, "Integrity of examinations and tests."

The NRC administered the operating tests during the period December 4-12, 2017. The NRC examiners evaluated ten RO and two SRO applicants using the guidelines contained in NUREG-1021. Members of the Sequoyah Nuclear Plant training staff administered the written examination on December 20, 2017. Evaluations of applicants and reviews of associated documentation were performed to determine if the applicants, who applied for licenses to operate the Sequoyah Nuclear Plant, Units 1 and 2, met the requirements specified in 10 CFR Part 55, "Operators' Licenses."

The NRC evaluated the performance or fidelity of the simulation facility during the preparation and conduct of the operating tests.

##### b. Findings

No findings were identified.

The NRC developed the written examination sample plan outline. Members of the Sequoyah Nuclear Plant training staff developed both the operating tests and the written examinations. All examination material was developed in accordance with the guidelines contained in Revision 11 of NUREG-1021. The NRC examination team reviewed the proposed examination. Examination changes agreed upon between the NRC and the licensee were made per NUREG-1021 and incorporated into the final version of the examination materials.

The NRC determined, using NUREG-1021, that the licensee's initial examination submittal was within the range of acceptability expected for a proposed examination.

All applicants passed both the operating test and written examination and were issued licenses.

Copies of all individual examination reports were sent to the facility Training Director for evaluation of weaknesses and determination of appropriate remedial training.

The licensee submitted one post-examination comment that was editorial in nature and did not require a change to the final administered written exam. A copy of the final written examinations and answer keys, with all changes incorporated, may be accessed not earlier than December 20, 2019, in the ADAMS system (ADAMS Accession Numbers ML 18045A077 and ML 18045A123).

#### 4OA6 Meetings, Including Exit

##### Exit Meeting Summary

On December 12, 2017, the NRC examination team discussed generic issues associated with the operating test with Mr. Dimopoulos, Sequoyah Operations Director, and members of the Sequoyah Nuclear Plant staff. The examiners asked the licensee if any of the examination material was proprietary. No proprietary information was identified.

#### **KEY POINTS OF CONTACT**

##### Licensee personnel

D. Dimopoulos, Operations Director  
G. Garner, Training Director  
C. Dahlman, Operations Training Manager  
R. Joplin, Corporate Exam Program Manager  
S. Nakamine, Operations Shift Manager  
M. Leeworts, Operations Training Liaison  
J. Ward, ILT Supervisor  
J. Bailey, Exam Room Supervisor/Author  
A. Roddy, ILT Instructor  
S. Smith, Exam Author

## **FACILITY POST-EXAMINATION COMMENTS AND NRC RESOLUTIONS**

A complete text of the licensee's post-examination comment can be found in ADAMS under Accession Number ML 18045A071. The licensee's post-examination comment was associated with one written exam question.

Because the comment was of a minor editorial nature no changes were requested nor made to the final administered written exam.



## SIMULATOR FIDELITY REPORT

Facility Licensee: Sequoyah Nuclear Plant

Facility Docket Nos.: 05000327, 05000328

Operating Test Administered: December 4-12, 2017

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 Inspection Procedure 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 test, examiners observed the following:

<u>Item</u>	<u>Description</u>
None	Not Applicable