



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

June 7, 2012

Mr. Tom E. Tynan
Vice President
Southern Nuclear Operating Company, Inc.
Vogtle Electric Generating Plant
7821 River Road
Waynesboro, GA 30830

**SUBJECT: VOGTLE ELECTRIC GENERATING PLANT – REACTOR AND SENIOR
REACTOR OPERATOR INITIAL EXAMINATIONS 05000424/2012301 AND
05000425/2012301**

Dear Mr. Tynan:

During the period of March 26 to April 13, 2012, the Nuclear Regulatory Commission (NRC) administered operating tests to employees of your company who had applied for licenses to operate the Vogtle Electric Generating Plant. 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 April 20, 2012.

Eight Reactor Operator (RO) and eight Senior Reactor Operator (SRO) applicants passed both the operating test and written examination. Two RO applicants and two SRO applicants, who were granted waivers for a previously passed operating test, passed the written exam. One SRO applicant failed the operating test, and one SRO applicant failed the written examination. There were two post-examination comments concerning the written examination. These comments, and the NRC resolution of the comments, are summarized in Enclosure 2. A Simulator Fidelity Report is included in this report as Enclosure 3.

The initial RO and SRO written examinations submitted by your staff failed to meet the guidelines for quality contained in NUREG-1021, Operator Licensing Examination Standards for Power Reactors, Revision 9, Supplement 1, as described in the enclosed report.

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) 997-4550.

Sincerely,

/RA/

Malcolm T. Widmann, Chief
Operations Branch 1
Division of Reactor Safety

Docket Nos: 50-424, 50-425
License Nos: NPF-68, NPF-81

Enclosures:

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

cc w/encl: (See page 3)

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cc w/encl: (See page 3)

Distribution w/encl:

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DATE	06/ 5 /2012	06/ 5 /2012	06/ 7 /2012	06/ 5 /2012		
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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T. Tynan

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Letter to Tom E. Tynan from Malcolm T. Widmann dated June 7, 2012

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT – REACTOR AND SENIOR
REACTOR OPERATOR INITIAL EXAMINATIONS 05000424/2012301 AND
05000425/2012301

Distribution w/encls:

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 05000424, 05000425

License Nos.: NPF-68, NPF-81

Report No.: 05000424/2012301 and 05000425/2012301

Licensee: Southern Nuclear Operating Company, Inc.

Facility: Vogtle Electric Generating Plant

Location: 7821 River Road
Waynesboro, GA 30830

Dates: Operating Test – March 26 – April 13, 2012
Written Examination – April 20, 2012

Examiners: M. Bates, Chief Examiner, Senior Operations Engineer
M. Meeks, Chief Examiner – Under Instruction, Senior Operations
Engineer
P. Capehart, Senior Operations Engineer

Approved by: Malcolm T. Widmann, Chief
Operations Branch 1
Division of Reactor Safety

SUMMARY OF FINDINGS

ER 05000424/2012301, 05000425/2012301; March 26 – April 13, 2012, and April 20, 2012; Vogtle Electric Generating Plant Units 1 and 2; Operator License Examinations.

Nuclear Regulatory Commission (NRC) examiners conducted an initial examination in accordance with the guidelines in Revision 9, Supplement 1, 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 Vogtle Electric Generating Plant staff developed both the operating tests and the written examination. The initial Reactor Operator (RO) and Senior Reactor Operator (SRO) written examination submittal did not meet the quality guidelines contained in NUREG-1021.

The NRC administered the operating tests during the period of March 26 to April 13, 2012. Members of the Vogtle Electric Generating Plant training staff administered the written examination on April 20, 2012. Eight RO applicants and six SRO applicants passed both the operating test and written examination, and were issued licenses commensurate with the level of examination administered. Two RO applicants and two SRO applicants, who were granted waivers for a previously passed operating test, passed the written exam and were also issued licenses commensurate with the level of examination administered. One SRO applicant failed the operating test, and one SRO applicant failed the written examination.

Two SRO applicants passed the operating test, but passed the SRO-only portion of the written examination with scores between 70 and 74 percent. Each of these applicants were issued a letter stating that they passed the examination and issuance of their license has been delayed pending any written examination appeals that may impact the licensing decision for their application.

There were two post-examination comments on the written examination.

No findings were identified.

REPORT DETAILS

4. OTHER ACTIVITIES

4OA5 Operator Licensing Examinations

a. Inspection Scope

Members of the Vogtle Electric Generating Plant staff developed both the operating tests and the written examination. All examination material was developed in accordance with the guidelines contained in Revision 9, Supplement 1, of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors." 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 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 examiners evaluated 10 RO applicants and 12 SRO applicants using the guidelines contained in NUREG-1021. The examiners administered the operating tests during the period of March 26 to April 13, 2012. Members of the Vogtle Electric Generating Plant training staff administered the written examination on April 20, 2012. Evaluations of applicants and reviews of associated documentation were performed to determine if the applicants, who applied for licenses to operate the Vogtle Electric Generating Plant, met the requirements specified in 10 CFR Part 55, "Operators' Licenses."

b. Findings

The NRC determined that the licensee's examination submittal was outside the range of acceptable quality specified in NUREG-1021. The initial written examination submittal was outside the range of acceptable quality because more than 20 percent [RO Exam: 21 of 75 and SRO Exam: 7 of 25] of questions sampled for review contained unacceptable flaws. Individual questions were evaluated as unsatisfactory due to questions not meeting the K/A statement contained in the examination outline, questions containing two or more implausible distractors, questions on the SRO examination not written at the SRO license level, and questions containing other unacceptable psychometric flaws.

The NRC determined that the licensee's initial operating test submittal was within the range of acceptability expected for a proposed examination.

Eight RO applicants and six SRO applicants passed both the operating test and written examination, and were issued licenses. Two RO applicants and two SRO applicants, who were granted waivers for a previously passed operating test, were also issued licenses. One SRO applicant failed the operating test, and one SRO applicant failed the written examination.

Two SRO applicants passed the operating test, but passed the SRO-only portion of the written examination with scores between 70 and 74 percent. Each of these applicants were issued a letter stating that they passed the examination and issuance of their license has been delayed pending any written examination appeals that may impact the licensing decision for their application.

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

The licensee submitted two post-examination comments. A copy of the final written examination and answer key, with all changes incorporated, and the licensee's post-examination comments may be accessed not earlier than June 2, 2014, in the ADAMS system (ADAMS Accession Number(s): ML121280562, ML121280569, and ML121280573.)

4OA6 Meetings, Including Exit

Exit Meeting Summary

On April 13, 2012, the NRC examination team discussed generic issues associated with the operating test with Mr. Tom E. Tynan, Vice President, and members of the Vogtle Electric Generating Plant staff. The examiners asked the licensee if any of the examination material was proprietary. No proprietary information was identified.

On May 11, 2012, the NRC examination team discussed the final exam results and evaluation of the initial written examination submittal via phone call with Mr. Robert Brown, Plant Training and Emergency Preparedness Manager, and members of the Vogtle Electric Generating Plant staff.

KEY POINTS OF CONTACT

Licensee personnel

T. Tynan, Site Vice President
D. McCary, Operations Manager
T. Parton, Operations Support Superintendent
R. Brown, Training Manager
J. Acree, Operations Training Supervisor
R. Dorman, Operations Shift Manager
T. Harris, Initial Instructor Lead
G. Wainwright, Operations Training Exam Development Lead
M. Henry, Operations Training Coordinator
K. Jenkins, Operations Training Instructor

FACILITY POST-EXAMINATION COMMENTS AND NRC RESOLUTIONS

A complete text of the licensee's post examination comments can be found in ADAMS under Accession Number ML121280573.

Item

RO Question 32, K/A 039K5.08

Comment

The licensee recommends that choices 'C' and 'D' both be accepted as correct answers.

Insufficient information was provided in the stem of the question to determine if 'D' was a potentially correct answer. The bases for answering the question correctly involved determining the core reactivity balance change that would result in a critical control rod height higher than the predicted estimated critical position (ECP). The answer key listed choice 'C' as the correct answer, which would result in a net negative reactivity addition to the core and thus a higher critical rod height. Choice 'C' is correct as written and is not in contention. However, the timeline for the predicted ECP was not made clear in the question stem, and as a result answer choice 'D' could also be correct. The Xenon concentration at 15 hours post-trip will be greater than either full power equilibrium Xenon concentration, or 26 hours post-trip. During exam administration, an initial clarification to applicant question referenced full power equilibrium conditions, and a second clarification referenced a reactivity condition 26 hours post-trip. Both clarifications contributed to reinforce choice 'D' as an additional correct choice for this question.

NRC Resolution

The licensee's recommendation was accepted.

The question stem did not provide enough information for the applicant to unambiguously determine whether answer choice 'D' was correct or not, because the timeline for the predicted ECP was not clearly specified in the question stem. Clarifications provided during the written exam administration reinforced the potential for 'D' to be correct. Applicants were forced to make an assumption as to what time the predicted ECP was calculated for; and it was reasonable to assume that the predicted ECP would have been determined at a time greater than 15 hours post-trip. This reasonable assumption renders 'D' as an additional correct answer.

In accordance with NUREG-1021 section ES-403 D.1.c., because both answer choices 'C' and 'D' are correct and do not contain conflicting information, both are accepted as correct.

Item

SRO Question 96, K/A G 2.4.12

Comment

The licensee recommends that the question be deleted from the examination.

The licensee contends that there is not a correct answer to the question, based upon procedure 91401-C, "ASSEMBLY AND ACCOUNTABILITY," step 5.6.3, which states "All other PA personnel and visitors with no responsibility in the ERO shall exit the PA following use of the exit card reader, and shall report to designated assembly areas. A complete list of assembly areas is provided in Table 1." Table 1 of this procedure specified that the correct assembly area for this group of personnel is inside the Administration Building. Because there is no answer choice that referenced the Administration Building, there is no correct answer.

NRC Resolution

The licensee's recommendation was not accepted.

Question 96 specifically asks about "an on shift Systems Operator" (SO) (*i.e.* a non-licensed operator who is part of the watch team) who does "not hold an ERO position." It is clear from the question that such an individual is a normal watchstander (*e.g.* turbine building watch, nuclear building watch, etc.) who does not hold another specific ERO position, such as Emergency Communicator or Fire Brigade Member. This statement in the question is not the same as stating that the SO does not have any ERO responsibilities; in fact, there is no such thing as an on-shift SO who would have no ERO responsibilities. The statement in the question simply makes it clear that the SO does not hold any additional ERO position besides that of SO.

With the above discussion in mind, procedure 91101-C, "EMERGENCY RESPONSE ORGANIZATION," steps 3.2.1 and 3.2.2 are clear that on-shift personnel would form organizations per Figure 1 and Figure 2 of 91101-C when ALERT emergencies (or higher) are declared. It is clear from Figure 1 and Figure 2 of 91101-C that on-shift System Operators report to the Control Room; and off-shift operators report to the OSC. Therefore, answer choice 'D' is the one and only correct answer to this question.

SIMULATOR FIDELITY REPORT

Facility Licensee: Vogtle Electric Generating Plant

Facility Docket No.: 05000424 and 05000425

Operating Test Administered: March 26 to April 13, 2012.

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.

No simulator fidelity or configuration issues were identified.