



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

November 15, 2012

Ms. Charlissa C. Smith

Dear Ms. Smith:

In response to your letter received by this office on June 5, 2012, the staff of the U.S. Nuclear Regulatory Commission (NRC) has reconsidered the proposed denial issued to you on May 11, 2012, and reviewed the grading of the operating test administered to you during the period of March 26 to April 13, 2012. Following an independent review of the additional information you supplied, the staff has determined that you did not pass the simulator operating test. The results of our review are enclosed.

In your letter, you also raised concerns regarding the handling of a potential waiver of the Vogtle 2012 operating test based on your previous satisfactory performance on that portion of the examination, and concerns regarding potential bias on part of the NRC examiners. An independent review of these contentions determined that in the discussions between NRC Region II and the facility licensee regarding potential waiver requests, at no time was the facility licensee told they could not or should not submit a waiver request on your behalf. Furthermore, the independent review did not find any evidence of bias by the NRC examiners in administering or evaluating your operating test. The results of our review of these contentions are also enclosed.

Consequently, the proposed denial of your license application is sustained. If you accept the proposed denial and decline to request a hearing within 20 days as discussed below, the proposed denial will become a final denial. You may then reapply for a license in accordance with Title 10, Section 55.35, of the *Code of Federal Regulations* (10 CFR 55.35), subject to the following conditions:

- a. Because this is your second examination failure, you will be required to retake both the written examination and the operating test.
- b. You may reapply for a license 6 months from the date of this letter.

If you do not accept the proposed denial, you may, within 20 days of the date of this letter, request a hearing pursuant to 10 CFR 2.103 (b)(2). Submit your request in writing to the Office of the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Rulemakings and Adjudications Staff, with a copy to the Associate General Counsel for Hearings, Enforcement, and Administration, Office of the General Counsel, at the same address. (Refer to 10 CFR 2.302 for additional filing options and instructions.) If submitting via private courier (e.g., FedEx, UPS), instead of using the Washington, D.C., address, submit your request to: Office of the Secretary, Sixteenth Floor, One White Flint North, 11555 Rockville Pike, Rockville, Maryland, 20852, Attention: Rulemakings and Adjudication Staff.

C. Smith

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Pursuant to 10 CFR 55.35, you may not reapply for a license until your license has been finally denied. Failure on your part to request a hearing within 20 days constitutes a waiver of your right to demand a hearing. For the purpose of reapplication under 10 CFR 55.35, such a waiver renders this letter a notice of final denial of your application, effective as of the date of this letter.

If you have any questions, please contact John McHale, Chief, Operator Licensing and Training Branch, Office of Nuclear Reactor Regulation, at (301)415-3254.

Sincerely,



Ho K. Nieh, Director
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation

Docket No. 55-23694

Enclosures:

1. Summary of Informal Review Results Sustaining Failure of Operating Test
2. Independent Review of Contentions Related to Waiver Process and Examiner Bias

cc w/o enclosures: T. Tynan, Site Vice President, Vogtle Electric Generating Plant
w/enclosures: R. Brown, Training Manager, Vogtle Electric Generating Plant

CERTIFIED MAIL—RETURN RECEIPT REQUESTED

SUMMARY OF INFORMAL REVIEW RESULTS SUSTAINING FAILURE OF OPERATING TEST

This review re-examined the original NRC simulator operating test grading of the applicant (as documented in the applicant's Individual Examination Report), including errors contested by the applicant, as well as errors not contested by the applicant. Review of the non-contested errors was necessary so that final competency and rating factor (RF) scores could be determined. This review was conducted by an independent panel of NRC staff from other NRC regions and headquarters using a multi-step process consisting of:

1. Determining the actual sequence of events which occurred wherever possible. This involved a review of the applicant's contentions, the original NRC grading, and examiner rough notes and timelines made while the scenarios were in progress; and a group interview with the NRC examiners who administered the scenarios.
2. In accordance with NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Rev. 9, Supp.1, Section ES-303 D.1, each simulator operating test performance deficiency was reviewed, taking into account the applicant's contentions and referring to the simulator scenario guides (the ES-D-1 and ES-D-2 forms) used during the examination. An independent determination was then made whether an error occurred.
3. After establishing whether or not errors occurred, the review then identified the root cause(s) of each error, and assigned each error to one or more RFs, in accordance with ES-303 D.1.d.

In order to facilitate the re-grading as requested by applicant, it was necessary for this review to examine all aspects of the applicant's original NRC simulator scenario grading, not just the grading contested by the applicant.

OVERALL CONCLUSION

This review determined that the applicant exhibited numerous performance problems during her simulator operating test, and that ultimately, she did NOT pass the Simulator Operating Test. Specifically, as result of this review and in accordance with the grading standards contained in ES-303 D.2.b, the applicant received a score of 1.66 in Competency Area 3, "Control Board Operations" based upon the incorrect performance of a critical task during Scenario 7, Event 5, and based upon two non-critical errors during Scenario 7, Event 3, as detailed below:

Rating Factor (RF)	RF Score	Errors from this review (S = scenario number; E = event number)	Brief Error Description
3.a	1	S7 E5: PZR PT-456 failed high, PORV opens	Takes PORV hand switch to open, corrected by Shift Supervisor (SS)
3.b	2	S7 E3: Loss of cooling to letdown heat exchanger	Lack of understanding associated with TIC-130 controller
3.c	2	S7 E3: Loss of cooling to letdown heat exchanger	Incorrectly presses up arrow on TIC-130 controller, corrected by SS

Competency Area 3 Results:

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Senior Reactor Operator Simulator Operating Test Grading Details						
Competencies/ Rating Factors (RFs)	RF Weights	RF Scores	RF Grades	Comp. Grades	Comment Page No.	
3. Control Board Operations						
a. Locate & Manipulate	0.34	1	0.34	1.66	See below	
b. Understanding	0.33	2	0.66			
c. Manual Control	0.33	2	0.66			

In accordance with ES-303 D.2.b, the re-grade of the applicant's simulator operating test resulted in overall unsatisfactory performance based upon: (1) a score of less than 1.80 in Competency 3, "Control Board Operations," and (2) a score of less than 2.0 in Competency 3 combined with a score of less than 1.80 in Competency 4, "Communications". (The independent review agreed with the original errors assessed against the rating factors associated with Competency 4.)

DETAILED REVIEW RESULTS

The independent review mostly agreed with the original grading of the applicant's performance on the simulator operating test; however, the review determined that there were errors associated with the applicant's performance that were linked with additional rating factors beyond those noted in the original grading documentation. Beyond the additional error assigned to Competency 3, "Control Board Manipulations," that is described in more detail below, there were additional errors that were associated with Competency 2, "Procedures," and Competency 5, "Directing Operations."

In lieu of covering each of the applicant's contentions and re-grades in detail, for the sake of brevity we only include a detailed discussion of the independent re-grading of Competency 3, "Control Board Operations" (which resulted in the applicant's examination failure) as detailed below.

Scenario 7, Event 5 (Rating Factor 3.a): Pressurizer Pressure Transmitter (PT-456) Failed High Causing PORV to Open, PORV Block Valve Failed to Automatically Close

This error was not contested by the applicant, and this review determined that the applicant's incorrect action during Scenario 7, Event 5, was related to a critical task.

Expected Action/Response: The applicant, as the Operator at the Controls (OATC) was expected to diagnose a failure of PT-456 and correctly perform the immediate actions of Procedure 18001-C, "Systems Instrumentation Malfunction," Section C, which included: (1) closing the pressurizer spray valves, (2) closing the affected pressurizer PORV, and (3) operating pressurizer heaters as necessary to restore pressurizer pressure.

Applicant Action/Response: The applicant correctly diagnosed that PT-456 failed high, and immediately closed the pressurizer spray valves. However, the applicant incorrectly took the hand switch for the affected pressurizer PORV to OPEN, and pressurizer pressure continued to lower. Approximately 30 seconds later, the applicant was directed by the SS to close the PORV, at which point the applicant correctly closed the PORV. After the scenario and when

asked by the examiner of record to explain her actions, the applicant stated that she had initially manipulated the PORV hand switch in the wrong direction.

Original NRC Grading, Affected Rating Factors (RF) and Scores:

RF 3.a (Control Board Operations—Locate & Manipulate) =1.0 (Contributed to a score of 1.0 along with errors during Scenario 1, Event 7, and Scenario 7, Event 6)

"The applicant demonstrated a weakness in her ability to accurately operate the PORV hand switch."

Applicant's Contentions (quoted verbatim): The applicant did not contest this error.

Analysis:

This review determined that the applicant did incorrectly operate the PORV hand switch, and agreed with the original grading that this error should be assessed to RF 3.a. However, this review also determined that this was an error associated with a critical task in accordance with NUREG-1021, Appendix D, item D.1.a, in that if left uncorrected (as directed by the SS), the applicant would have allowed a small break loss of coolant accident to continue (a degraded fission product barrier), which would have required an automatic reactor trip and safety injection to mitigate. In accordance with the grading standards contained in ES-303 D.2.b, a critical task error results in a score of "1" for rating factor 3.a.

Scenario 7, Event 3 (Rating Factors 3.b and 3.c): Loss of Cooling to Letdown Heat Exchanger (TE-0130 Fails Low)

This review did not agree with the applicant and identified an additional error beyond what was assigned in the original grading. This review assessed errors to RF 3.c per the original grading (Control Board Operations—Manual Control) and RF 3.b (Control Board Operations—Understanding) based upon her performance during this event.

Expected Action/Response: Following the correct diagnosis that TE-0130 had failed low, the applicant as the OATC and while in the vicinity of the affected controller (TIC-130), was expected to recommend or actually take (without direction) manual control of TIC-130. Upon taking manual control, the applicant was expected to depress the "down" arrow on TIC-130 to open valve TCV-0130 and restore auxiliary component cooling water flow to the letdown heat exchanger.

Applicant Action/Response: The applicant identified the temperature element failure and made the proper diagnosis. However, the applicant, while in the vicinity of TIC-130 during the entire event, never recommended taking manual control of TIC-130, nor did the applicant actually take manual control of TIC-130 until directed by the SS ten minutes after the temperature element failure. Instead of recommending or taking manual control, prior to being directed to take manual control by the SS, the applicant stated: "'The only thing we can do is call C&T [Clearance and Tagging] to get the TE [temperature element] fixed.'" Upon being directed to take manual control by the SS, the applicant depressed the "up" arrow on TIC-130, which did not open TCV-0130. The applicant was corrected by the SS, at which point the applicant depressed the "down" arrow on TIC-130, which opened TCV-0130 and restored cooling water flow to the letdown heat exchanger.

Original NRC Grading, Affected Rating Factors (RF) and Scores:

RF 3.c (Control Board Operations—Manual Control) = 2.0

"The applicant was downgraded in this competency due to not demonstrating the ability to manually control an automatic function."

Applicant's Contentions (quoted verbatim): "The examiner writes that when TE - 130 failed low, that the applicant acknowledged the associated alarms but did not take any actions to take manual control of letdown temperature and also did not recommend to the SRO that she could manually control letdown temperature. The event description does not identify that the applicant acknowledged the alarms and was immediately told to go back to the C panel and monitor reactivity (Note; that in previous NRC administered exams circumstances are established to make the applicant respond to the condition if this is the intent (example, have the UO [Unit Operator] performing actions on the back panels), the NRC examiners could have easily controlled this situation by a simply direction of "WE WOULD LIKE FOR YOU TO RESPOND TO THIS FAILURE WHILE THE UO ASSUMES THE REACTIVITY RESPONSIBILITY", not giving this type of cue or direction could be interpreted by the candidate that the NRC desires that the UO is to perform this function as part of the simulator testing plan.

When the UO was directed to address the alarm and respond to the failure (with no disagreement from the NRC exam team) all the NRC grading and point reduction related to the OATC response would appear not to be appropriate. At that time the applicant was not assigned to diagnose or respond to the failure. The applicant assisted the crew and identified to the SRO that TIC-130 was closed. In determining that the Temperature Element had failed low, the applicants' statement was to notify the SRO that there was no associated AOP entry with the failure and that it could only be fixed by contacting C& T (implying that the actual repair of the component would require maintenance, note to contact C& T and request a work order, condition report, and notify operations management of the problem should have been consistently observed by the NRC testing team). The SRO directed the applicant to open the valve (TI -130) and the applicant did push the up arrow first. The error had no negative impact and was quickly corrected when the down arrow was pressed and the temperature was controlled and monitored for the duration of the scenario. Initial thought was to open the valve but the TIC-130, located in the Control Room is not a direct indication of valve position. It is representative of controlling the temperature by using the up arrow to raise temperature and the down arrow to lower temperature.

After the scenario the examiner did ask questions about the incorrect manipulation, and the applicant explained in detail how the valve works. Applicant identified that the controller is used to control temperature and that you must understand what direction the valve, TI-130, moves based on the how temperature is controlled. If the up arrow is pressed then you are trying to raise temperature, then the valve (TI -130) would close (TI-130 controls the amount of cooling water that goes through the letdown heat exchanger). Because the TE-130 failed the controller thought that temperature lowered and closed the valve to decrease the amount of cooling water that went through the heat exchanger to try to raise temperature. This was all explained to the examiner.

Initially the controller was operated in the wrong direction and there was no impact because the valve was already in the closed position. In addition I would like for the review team to evaluate the categorization of this comments. If the evaluator's main comments was that 'the valve was initially operated in the wrong direction'. Then would it be more appropriate that this be placed under 'Locate and Manipulate' versus 'Manual Control'. This is a similar description to what was described in comment # 19 in which the PORV was operated in the wrong direction (see supporting documents for a copy of the comment). The applicant did manually control the parameter once the valve was open. The applicant trended the program and notified the SRO when the parameter was back in specification.

When reviewing consider the following:

1. The applicant was assigned to monitor Reactivity, UO was designated to diagnose the failure
2. The applicant is the crew member that identified the failure to the SRO
3. Once the valve was turned back over to the applicant, she controlled the parameter until back in spec.
4. Was this comment categorized correctly
5. The valve was already closed, so there were no consequences"

Additional information provided by the applicant:

1. Pages 8-13 of the NRC ES-D-2 forms for Scenario 7, Event 3.
2. Page 19 of the applicant's Individual Examination Report (Form ES-303-1), where the NRC documented her operation of the pressurizer PORV during scenario 7, event 5.
3. A signed statement from the SS on the applicant's crew:

"Charlissa (RO) was the first to recognize that TE-0130 was the failed component. I directed Rodney (UO) to pull and investigate the appropriate ARPs. The statement Charlissa made about contacting C& T was to reinforce the fact that there was no AOP entry to be made (for loss of letdown). This statement was not stand-alone and was taken out of context for the situation. When operating TIC-130 there was no consequential action in pressing the up arrow and the crew immediately self corrected as is the expectation of Operations Training and Operations for the control room team."

Analysis:

In summary, the applicant requested reconsideration of this apparent error based upon the following factors:

1. The applicant as the OATC was directed by the SS to monitor reactivity during this event.
2. The UO was directed by the SS to address the alarm and respond to the failure, and the NRC examination team did not "steer" this event to the applicant. Therefore, the applicant should not have been downgraded for actions which should have been performed by the UO, especially since the applicant was directed to monitor reactivity.
3. Although not "steered" or "assigned" this event by the examiners, the applicant did assist the crew by identifying that TV-0130 was closed and that the temperature element had failed low.
4. With regard to a statement she made during this event, "The only thing we can do is call C&T [Clearance and Tagging] to get the TE fixed" (from her original grading, page 21 of her Individual Examination Report Form ES-303-1), the applicant explained that this statement was

made to notify the SS that there was no associated AOP (abnormal operating procedure) entry for the failure and that it could only be fixed by contacting C&T.

5. The applicant did acknowledge incorrectly pressing the "up" arrow first on TIC-130, but that this error was quickly corrected by pressing the "down" arrow with no negative impact, in part because TV-0130 was already in the closed position.

6. After the scenario and when asked by the examiner, the applicant correctly explained how TIC-130 and associated valve TV-0130 functioned, including how to operate TIC-130 using the "up" and "down" arrows.

7. Based on a similar error made by the applicant during scenario 7 event 5, where the applicant incorrectly manipulated a pressurizer PORV switch and had to be prompted to take the correct action, it would be more appropriate to assign the applicant's initial incorrect action of pressing the "up" arrow on TIC-130 to RF 3.a (Control Board Operations—Locate & Manipulate).

With respect to each of these factors, the NRC's review determined the following:

1. Unknown. The NRC examiners did not document this direction by the SS to monitor reactivity and could not recall if it occurred, nor did the written statement provided by the SS support this direction. Regardless, the applicant remained in close proximity to TIC-130 during the entire event.

2. Agree in part. The UO was directed by the SS to refer to the annunciator response procedure for this event, and the NRC examiners did not "steer" this event to the applicant. With regard to grading, see the next section, item 2.

3. Agree.

4. It remains unclear what the applicant intended with her statement. See the next section regarding grading, item 2.

5. Agree that the applicant pressed the correct arrow button on her second attempt after being corrected by the SS, and that this was performed quickly with no adverse consequences. Supporting "no negative impact" with the statement that "TV-0130 was already in the closed position" makes no sense, since the purpose of operating the arrow buttons on TIC-130 under the circumstances was to open TV-0130.

6. Agree.

7. Disagree. The manual operation of TIC-130 is clearly associated with taking manual control of an automatic function, since letdown temperature is normally automatically controlled by TIC-130. Thus, any errors in the manual operation of TIC-130 should be assigned to RF 3.c (Control Board Operations—Manual Control). Pressurizer pressure, however, is NOT normally automatically controlled by the pressurizer PORVs, and errors in manually operating the PORVs should be assigned to RF 3.a (Control Board Operations—Locate & Manipulate).

Given the above, how did this review determine that the applicant's performance during this event should be assessed errors for RF 3.c (Control Board Operations—Manual Control) and RF 3.b (Control Board Operations—Understanding)?

1. The applicant did make an error (to which she admitted) by incorrectly pressing the "up" arrow on TIC-130, which was corrected by the SS. Although this review agreed that there were no significant adverse consequences associated with this error, NRC dynamic simulator examinations are graded based on competencies, not consequences, in accordance with NUREG-1021, ES-303 D.2.b: "Keep in mind that the simulator test is generally graded on competencies rather than consequences; every error that reflects on an operator's competence is considered equal unless it is related to the performance of a critical task..." As discussed in item 7 above, this review determined that the applicant's error in the manual operation of TIC-

130 clearly should be assigned to RF 3.c (Control Board Operations—Manual Control), and thus, an error for RF 3.c is justified.

2. With regard to RF 3.b (Control Board Operations—Understanding) this review disagreed with the applicant's argument that following her diagnosis "all the NRC grading and point reduction related to the OATC response would not appear appropriate," i.e., that only the UO (and SS) should be downgraded. Instead, this review determined that an error occurred regarding the applicant's understanding related to control board operations, based upon the following:

- a. This review did not conclusively determine that the applicant was specifically assigned to monitor reactivity during this event. Regardless, the applicant remained in close proximity to TIC-130 during the entire event.
- b. The NRC ES-D-2 forms assigned this event to the OATC.
- c. At any time during this event, the applicant should have taken (without direction) or recommended taking manual control of TIC-130 to open TCV-0130 and restore cooling flow to the letdown heat exchanger. Instead, the applicant was directed by the SS to take manual control 10 minutes after the temperature input had failed low, at which point the applicant incorrectly pressed the "up" arrow.
- d. The action or recommendation to take manual control of TIC-130 does not require checking the annunciator response procedure or other procedures, but simply requires an understanding of the operation of TIC-130 given a failed temperature input. Instead of taking action or making a recommendation for manual control, the applicant provided a misleading statement to the SS that "The only thing we can do is call C&T to get the TE fixed."

INDEPENDENT REVIEW OF CONTENTIONS RELATED TO WAIVER PROCESS AND EXAMINER BIAS

SUMMARY

An applicant failed the written portion of the Vogtle 2011 initial license examination but passed the operating test. The facility did not request a waiver of the operating test and the applicant was subsequently reexamined in 2012. The applicant failed the operating test portion of the Vogtle 2012 examination but passed the written examination. After receiving a license denial letter, the applicant contacted the Director, DIRS, contending bias on the part of the examiners. An independent Region II manager was unable to substantiate the applicant's contentions.

BACKGROUND

The Senior Reactor Operator – Instant (SRO-I) applicant, C. Smith, passed the operating test portion of an initial license examination administered in March 2011, at Vogtle, but failed the written test.

The licensee did not request a waiver of the operating test on behalf of the applicant when they submitted the applicant's Form 398 in preparation for the 2012 initial license examination.

Examiners administered the operating test portion of an initial license examination to the applicant in March and April of 2012. The applicant failed the operating test and was notified of the test results in May 2012. In June 2012, the Director, Division of Inspection and Regional Support, received correspondence from the applicant regarding regional examiners' conduct of the examination. In this correspondence, the applicant raised contentions concerning 1) the manner in which examiners conducting the 2012 examinations applied the guidelines of NUREG-1021 concerning operating test waivers and 2) examiner bias. Specific issues raised by the applicant in her correspondence are paraphrased and listed below:

- The applicant does not understand why she had to retake the operating test for the 2012 examination when she passed the 2011 operating test. (Re-take of 2012 operating test)
- The applicant contends that the NRC examiners on the 2012 examination team strongly discouraged the licensee from submitting a waiver of the 2012 operating test on her behalf. (Waiver discussions between examiners and licensee)
- The applicant contends that the examiners on the 2012 examination team were biased and held her to a higher standard of performance as compared to other applicants. (Potential examiner bias)

In response to the applicant's contentions, Region II management decided to conduct an independent management review of the applicant's contentions of bias. The management review was performed by Frank Ehrhardt, an independent Region II manager who has prior operator licensing experience as a Chief Examiner for Westinghouse pressurized water reactors. This manager was also from the Division of Reactor Projects, a division separate from the operator licensing (examiner) branch. The manager performed the following activities in conducting the review:

ENCLOSURE 2

- Interviewed examiners that conducted the 2011 and 2012 Vogtle initial license examinations.
- Obtained and evaluated independent written statements from the examiners that conducted the 2011 and 2012 Vogtle initial license examinations.
- Assessed correspondence between the examiners and the licensee regarding potential waivers for applicants that took the 2012 Vogtle examination.
- Reviewed the operator licensing docket file maintained in Region II for C. Smith. This file includes the applicant's NRC Form 398, "Personal Qualifications Statement: Licensee", Individual Examination Reports (Form ES-301-1) of the applicant's 2011 and 2012 Vogtle initial license examinations, and correspondence between the applicant and the NRC.
- Reviewed Individual Examination Reports of other applicants who took the Vogtle 2012 initial license examination.

Re-take of 2012 operating test

The applicant passed the operating test portion, but failed the written portion of the 2011 initial license examination. NUREG-1021, ES-204, Processing Waivers Requested by Reactor Operator and Senior Reactor Operator Applicants, paragraph C.1.a states that an applicant may request a waiver of a license requirement by checking the appropriate block in Item 4.f on NRC Form 398, "Personal Qualifications Statement: Licensee" and the applicant should also explain the basis for requesting the waiver in Item 17, "Comments." ES-204, paragraph C.2 states that the facility licensee's senior management representative on site must certify the final license application, thereby substantiating the basis for the applicant's waiver request.

The manager reviewed the NRC Form 398 that the licensee submitted on behalf of the applicant in March of 2012. The manager determined that Item 4.f on the applicant's Form 398 was not marked to indicate that a waiver was being requested for an operating test and that no supporting information had been entered for Item 17 to provide justification for a waiver of the operating test. Thus, the reason the applicant was required to retake the operating test in 2012 is because a waiver of the operating test portion of the 2012 examination was not requested in accordance with NUREG-1021.

Waiver discussions between examiners and licensee

ES-204, D.1.a states that "if an applicant failed only one portion of the site-specific initial licensing examination (i.e., either the written examination overall,.....), the region *may* (emphasis added) waive those examination areas that were passed. NUREG-1021 does not provide a standard for examiners to use in making this decision. Thus, examiners are not required to grant a waiver request and their decision is based on judgment.

As described in NUREG-1021, the operating test consists of two portions: 1) a simulator operating test, and 2) a walk-through test comprised of administrative, (simulated) control room, and (simulated) in-plant job performance measures (JPMs). Per NUREG-1021, the walk-through test for an SRO-I applicant consists of 5 administrative, 7 control room, and 3 in-plant JPMs.

As described in NUREG-1021, an applicant will receive a competency grade of 3.00 if he or she makes no errors related to the Rating Factors within the Competency. In order to pass the simulator portion of the operating test, an applicant must achieve the following minimum

competency grades, in accordance with ES-303, Section D.2:

- The grade for all competencies is greater than 1.8, or
- The individual grades for all competencies other than Communications are 2.0 or greater and the grade for Communications is less than or equal to 1.8 but greater than 1.0

The applicant's performance will be graded as unsatisfactory if the grade for Communications is 1.0 or the grade for any other competency is 1.8 or less.

The examiner of record graded the applicant on the simulator portion of the 2011 operating test, which she passed, as summarized in the following table.

Competency	Competency Grade
1. Interpretation/Diagnosis	2.50
2. Procedures	2.20
3. Control Board Operations	2.33
4. Communications	2.00
5. Directing Operations	2.80
6. Technical Specifications	3.00

The applicant received an overall grade of satisfactory on the walk-through portion of the 2011 operating test. The applicant received satisfactory grades on all administrative, control room, and in plant JPMs. In order to receive a satisfactory grade on a JPM, the applicant must successfully complete all critical steps required to complete the task, as indicated by the documented performance measures contained in the JPM. Per NUREG-1021, ES- 303, D.3.c, examiners are required to document deficiencies that do not contribute to an operating test failure, for example, weaknesses or errors displayed by the applicant in performing non-critical steps of JPMs. Examiners documented weaknesses in the applicant's performance on 6 of the 15 JPMs.

The manager determined that the Chief Examiner and Examiner of Record for the applicant's 2011 examination assessed the applicants' performance as marginal or borderline and informed the Operator Licensing Branch Chief, shortly after the 2011 examination, that the applicant was not a good candidate to receive a waiver of any future operating test. The Chief Examiner stated that, when assessing whether or not to recommend a waiver of the operating test, he weighed the applicant's performance on the simulator portion of the operating test more heavily than performance on the walkthrough (JPM) portion. His stated rationale for doing so was that the simulator test most closely mimicked the changing, complex situations that the licensed operator would face when acting to protect public health and safety. This reasoning is consistent with ES-301, B.3, "Simulator Operating Test, which states, "This is the most performance-based aspect of the operating test and is used to evaluate the applicant's ability to safely operate the plant's systems under dynamic, integrated conditions." Additionally, although the walk-through and simulator portions of the operating test are graded separately, the Chief Examiner stated he noted similarities in the types of errors made by the applicant when performing both portions of the operating test.

To gauge whether the Chief Examiner's assessment was consistent with Region II norms, the manager reviewed data drawn from the Operator Licensing Tracking System database. The

manager did not find any instances within Region II of an operating test waiver being requested and denied within the last three years (1/1/09 – 6/30/12). The manager did find 33 instances over the last three years when the region granted waivers of the operating test (11 SRO and 22 RO). The manager compared the simulator test competency scores for those individuals who were granted waivers to those of the applicant and determined that the applicant's simulator test competency scores were, overall, significantly lower than any of the scores for those individuals who were granted waivers. The manager also performed an independent review of comments on the applicant's 2011 walk-through (JPM) test. The manager determined that, while the applicant's performance on each JPM was graded as satisfactory, the weaknesses and errors demonstrated by the applicant supported the Chief Examiner's overall impression that the applicant's performance was borderline with respect to her competency as a potentially licensed operator.

The manager concluded that the Chief Examiner's assessment of the applicants' performance with respect to suitability for a waiver was consistent with the guidelines contained in NUREG-1021 as well as past practice within Region II.

The manager determined that the licensee had asked the Chief Examiner for the 2012 examination if Region II would approve an operating test waiver, if one was submitted on behalf of the applicant. The licensee made this inquiry, via e-mail, before submitting the applicant's NRC Form 398 in March of 2012. The manager determined that the Chief Examiner, after consultation with the Operator Licensing Branch Chief, informed the licensee that Region II "would likely deny a waiver request on behalf of the applicant for the operating test portion of the examination." The Chief Examiner stated that, because he was not involved in the 2011 examination, he simply followed the recommendation of the 2011 Chief Examiner and Examiner of Record when responding to the licensee's question. The Chief Examiner's motivation for telling the licensee that the applicant would likely be denied a waiver was so that the licensee could arrange for any necessary remedial training as early as possible if they decided to include the applicant in a future license class.

The Chief Examiner for the 2012 examination stated that the licensee had submitted a preliminary (draft) Form 398 for the applicant, after the e-mail conversations described above, and before submitting the final Form 398 on behalf of the applicant. Additionally, the licensee had checked Item 4.f requesting a waiver of the operating test for the applicant. The Chief Examiner stated that he contacted the licensee and asked if they had changed their mind and intended to submit a request for a waiver of the operating test on behalf of the applicant. The licensee representative responded that they had checked Item 4.f. in error and did not intend to request a waiver of the operating test when they submitted the final Form 398.

The manager determined that none of the examiners conducting the 2011 or 2012 examinations told the licensee they could not or should not submit a waiver request on behalf of the applicant and never communicated directly with the applicant regarding a potential waiver. Additionally, the manager determined that the licensee did not contact the Region II Operator Licensing Branch Chief in order to clarify the reasoning behind, or informally appeal, the Chief Examiners' assessment regarding the likely outcome of a request for a waiver.

The manager concluded that the communication between the Chief Examiner and the licensee regarding a potential waiver request was consistent with the NRC values of openness and efficiency.

Potential examiner bias

The primary objective of the NRC's examinations is to determine whether or not the examinees have sufficiently mastered the knowledge, skills, abilities, and other attributes to perform the job of an RO or an SRO at a specific plant. The NRC's examinations are not intended to distinguish among levels of competency or to identify the most qualified individuals, but to make reliable and valid distinctions at the minimum level of competency that the agency has selected in the interests of public protection. Thus, the NRC's initial licensing examinations are criterion-referenced tests rather than norm-referenced tests.

As described in NUREG-1021, Appendix A, Overview of Generic Examination Concepts, acceptable levels of examination consistency, uniformity, and fairness would be impossible to achieve without quantitative and qualitative acceptance criteria. The examination material used by examiners during licensing examinations is designed to conform to the examination standards outlined in NUREG-1021. The examination standards include quantitative and qualitative criteria necessary for a well-balanced and consistent examination. Conformance to these standards decreases the likelihood that inconsistencies among examination content and administration will jeopardize the validity of the NRC's licensing decision.

Thus, initial examinations are highly pre-scripted, with critical tasks, steps, and key performance elements explicitly determined and documented in advance in consultation with facility training representatives. Therefore, there is little, if any, opportunity to hold any applicant to a higher standard of performance than another.

2012 Exam Administration

The examiners comprising the 2011 Vogtle examination team, their roles, and the portions of the operating test each examiner administered to the applicant are outlined in the table below.

Examiner	Role	Portions of Test Administered
J. Hopkins	Examiner of Record	(All) Simulator Scenarios (pass – 12 total comments) Seven JPMs (all graded satisfactory, 2 with comments)
P. Capehart	Chief Examiner	Six JPMs (all graded satisfactory, 3 with comments)
M. Meeks	Examiner	Two JPMs (both graded satisfactory, one with comments)

The examiners comprising the 2012 Vogtle examination team, their roles, and the portions of the operating test each examiner administered to the applicant are outlined in the table below.

Examiner	Role	Portions of Test Administered
M. Bates	Chief Examiner / Examiner of Record	(All) Simulator Scenarios (fail – 18 total comments) Five JPMs (all graded satisfactory, one with comments)
P. Capehart	Examiner	Two JPMs (both graded satisfactory, no comments)
M. Meeks	Examiner	Eight JPMs (all graded satisfactory, three with comments)

The above tables show that the applicant's examiner of record for the 2012 examination did not participate in the 2011 examination and would have had no opportunity to be biased through direct observation of her performance on the 2011 examination. Put another way, the examiner

who evaluated the applicant's performance on the 2012 simulator test as unsatisfactory was the one member of the examination team who had no opportunity to observe the applicant's performance on the 2011 examination.

The tables also show that the Chief Examiner for the 2011 examination, who directly observed her performance on six JPMs during the 2011 examination and assessed the applicant's performance relative to a request for a waiver, played a relatively small role in examining the applicant in 2012. Finally, the other examiner who participated in the 2012 examination played a small role in examining the applicant in 2011, directly observing the applicant's performance on two JPMs.

The manager also interviewed the Chief Examiner for the 2012 examination, as well as the other examiner who administered the bulk of the applicant's walk-through exam, to determine if they had obtained detailed knowledge of the applicant's performance on the 2011 examination prior to administering the 2012 examination. The manager determined that the Chief Examiner/Examiner of Record for the 2012 examination did not review or read the applicant's 2011 Individual Examination Report. The Chief Examiner stated that it was not necessary for him to review the applicant's 2011 examination results to respond to the licensee's inquiry regarding a potential waiver because he followed the recommendation of the 2011 Chief Examiner. The Chief Examiner also stated that he purposely did not review the applicant's 2011 examination results because he wanted to ensure he remained objective when examining the applicant.

The manager also determined that M. Meeks did not review the applicant's 2011 Individual Examination Report before administering the 2012 examination in order to ensure he remained unbiased. The examiner stated that his expectation regarding the applicant's performance on the 2012 operating test was that she would likely pass because the licensee had recommended her as ready for a license and because she had received additional training and practice on simulator scenarios and JPMs.

In developing a plan to administer the simulator operating test, the Chief Examiner stated that his goals were to minimize the number of scenarios that needed to be developed and administered, minimize the number of scenarios that would require use of a surrogate operator, and, to the extent practicable, ensure that any necessary surrogates were used in the Balance of Plant Position. These goals are consistent with the guidance contained in ES-301. ES-301 provides guidance that permits the examiners to examine an applicant on one additional scenario above the minimum number required if doing so will reduce the use of surrogate operators. When the Chief Examiner applied these guidelines to developing a detailed plan, he determined that the applicant would be evaluated during three simulator scenarios.

The Chief Examiner stated that he assigned applicants to examiners to ensure that an examiner who had no detailed knowledge of the applicant's performance on the 2011 operating test was assigned as her examiner of record for the 2012 examination. He stated he did this specifically to ensure the applicant would receive an unbiased evaluation. This action is consistent with the guidance contained in NUREG-1021, ES-201, D.1.a concerning personnel restrictions for NRC examiners. ES-201, D.1.a states "The regional office shall not assign an examiner who failed an applicant on an operating test to administer any part of that applicant's retake operating test. Because the applicant did not fail the 2011 operating test, it would have been acceptable to assign any one of the 2012 examiners as the applicant's examiner of record. By assigning himself, the Chief Examiner ensured, to the maximum extent possible, that the applicant received an unbiased evaluation.

The manager concluded that the Chief Examiner of the 2012 examination followed the guidance contained in NUREG-1021 when determining the number of scenarios to administer to the applicant and took measures beyond the guidance specified in NUREG-1021 when assigning himself as the applicant's examiner of record.

2012 Operating Test Grading

NUREG-1021, ES-303, D.2 states "...depending on the applicant's license level, and the following generic guidance, evaluate any deficiencies coded for the simulator test to determine a grade for every available rating factor (RF) and competency. Keep in mind that the simulator test is generally graded based on competencies rather than consequences; every error that reflects on an operator's competence is considered equal unless it is related to the performance of a critical task."

The manager compared the simulator test comments documented in the applicant's Individual Examination Report to comments documented in the Individual Examination Reports of other applicants that took the Vogtle 2012 operating test. The manager observed evidence, based on numerous examples, that examiners applied a similar threshold for documenting behavior that was considered to constitute a weakness or error across all applicants. In many cases, the same weakness or error exhibited by multiple applicants was categorized in the same rating factor in their Individual Examination Reports. The manager observed differences in describing or categorizing some errors, but the differences can be explained either by differences in the root cause for making the error or because applicants were filling different shift positions (e.g. RO vs. BOP) when making the errors.

NUREG-1021, ES-303, D.1.d states, in part "Whenever possible, attempt to identify the root cause of the applicant's deficiencies and code each deficiency with no more than two different rating factors. However, one significant deficiency may be coded with additional rating factors if the error can be shown, consistent with the criteria in D.3.b, to be relevant to each of the cited rating factors." The examiners administering the 2012 examination stated that in applying this guidance in evaluating all of the applicants taking the 2012 examination they decided to assign each deficiency to only the single rating factor that was most closely related to the root cause of the error, even though the guidance allowed for assigning an additional rating factor under normal circumstances.

Prior to issuing the license denial to the applicant, the Chief Examiner obtained independent reviews of the applicant's Individual Examination Report from two senior examiners and one examiner. The purpose of these reviews was to ensure that the applicant's performance was accurately described and characterized and that the examiner's assessment of the applicant's performance complied with the guidelines contained in NUREG-1021. The two senior examiners previously held SRO licenses and also had significant experience developing, administering, and evaluating operating tests as members of licensee training staffs. The other examiner previously held an SRO license. The Chief Examiner stated that he incorporated the majority of the comments made by the reviewers. The manager determined that none of the independent reviewers raised issues related to excessively 'strict' assessments of the applicant's performance or potential bias.

The manager concluded that examiners applied the same threshold for evaluating the applicant's performance, and documenting the applicant's errors, as for other individuals taking the exam. The manager was unable to detect a pattern of bias based on a review of Individual

Examination Reports, statements from examiners, or interviews. The manager concluded that the applicant received lower documented scores on the simulator portion of the operating test, in comparison to other individuals taking the test, because the applicant simply made more errors during the simulator scenarios.

The applicant passed all JPMs administered in 2011 as well as all JPMs administered in 2012. However, in an attempt to uncover any potential bias concerning the administration of the walkthrough test, the manager compared the number of comments made regarding the applicant's performance on JPMs by the examiners conducting both the 2011 and 2012 walk-through examinations. This comparison is summarized in the table below.

	Total Administered	Total Passed	Total Comments
Capehart/Meeks -2011 JPMs	8	8	4
Capehart/Meeks -2012 JPMs	10	10	3

Because the applicant received a satisfactory grade on all 2012 JPMs, and the examiners made fewer comments concerning the applicant's performance in 2012, the manager determined that reviewing the 2012 JPM comments would not provide additional information regarding potential bias. The manager concluded that these examiners did not exhibit bias in grading the applicant's 2012 walk-through exam.

Conclusion

The manager, after conducting an independent review of the applicant's contentions, reached the following conclusions:

- The applicant did not receive a waiver for the operating test portion of the Vogtle 2012 initial license examination because the facility licensee did not request a waiver on behalf of the applicant.
- The applicant's contention that examiners discouraged the facility licensee from requesting a waiver of the operating test portion of the Vogtle 2012 initial license examination is unsubstantiated.
- The applicant's contention of bias by examiners in administering or evaluating her operating test is unsubstantiated.

Furthermore, the manager determined that the applicant was examined fairly, in a normal fashion, in accordance with the guidelines contained in NUREG-0121.