

UNITED STATES NUCLEAR REGULATORY COMMISSION REGION II 245 PEACHTREE CENTER AVENUE N.E., SUITE 1200 ATLANTA, GEORGIA 30303-1200

January 19, 2021

Mr. Anthony L. Williams, IV Site Vice President Watts Bar Nuclear Plant Tennessee Valley Authority P.O. Box 2000, ADM 1V-WBN Spring City, TN 37381

SUBJECT: RE-ISSUE – WATTS BAR NUCLEAR PLANT – NRC OPERATOR LICENSE EXAMINATION REPORT 05000390/2020301 AND 05000391/2020301

Dear Mr. Williams:

On October 6, 2020, the US Nuclear Regulatory Commission (NRC) issued the License Examination Report for the Watts Bar Nuclear Plant, ADAMS Accession Number ML20281A562. In reviewing this report, we identified an administrative error regarding the Enterprise Identifier (EPID) number. Specifically, that EPID L-2020-OLL-0032 should be L-2020-OLL-0027. We request that the cover letter and report be replaced with the Enclosures to this letter.

In accordance with Title 10 of the Code of Federal Regulations (10 CFR) 2.390 "Public inspection, exemptions, requests for withholding" of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room, of the Publicly Available Records (PARS) component of NRC's ADAMS; accessible from the NRC Website at https://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Please contact me at 404-997-4551 with any questions you have regarding this letter.

Sincerely,

/**RA**/

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

Docket Nos: 50-390, 50-391 License Nos: NPF-90, NPF-96

Enclosures:

- 1. Report Details
- 2. Simulator Fidelity Report

cc: Distribution via Listserv

SUBJECT: WATTS BAR NUCLEAR PLANT – NRC OPERATOR LICENSE EXAMINATION REPORT 05000390/2020301 AND 05000391/2020301 dated January 19, 2021

DISTIBUTION:

D. Dumbacher, RII G. McCoy, RII

* See previous page for concurrence

🛛 PUBLICLY AVAILABLE 🛛 NON-PUBLICLY AVAILABLE 🗌 SENSITIVE 🖾 NON-SENSITIVE

ADAMS: Yes ACCESSION NUMBER ML21019A578: _ SUNSI REVIEW COMPLETE FORM 665 ATTACHED

OFFICE	RII/DRS/OB1	RII:DRS/OB1	RII:DRS/OB1	
NAME	DEGELSTAD	DDUMBACHER	GMCCOY	
DATE	1/15/2021	1/15/2021	1/ 19 /2021	

OFFICIAL RECORD COPY DOCUMENT NAME: G:\OLEXAMS\WATTS BAR EXAMINATIONS\INITIAL EXAM 2020-301\CORRESPONDENCE\EXAM REPORT\WB 2020-301 EXAM REPORT.REV 1.DOCX



UNITED STATES NUCLEAR REGULATORY COMMISSION REGION II 245 PEACHTREE CENTER AVENUE N.E., SUITE 1200 ATLANTA, GEORGIA 30303-1200

October 06, 2020

Mr. Anthony L. Williams, IV Site Vice President Watts Bar Nuclear Plant Tennessee Valley Authority P.O. Box 2000, ADM 1V-WBN Spring City, TN 37381

SUBJECT: WATTS BAR NUCLEAR PLANT – NRC OPERATOR LICENSE EXAMINATION REPORT 05000390/2020301 AND 05000391/2020301

Dear Mr. Williams:

During the period August 24 – September 1, 2020, the Nuclear Regulatory Commission (NRC) administered operating tests to employees of your company who had applied for licenses to operate the Watts Bar Nuclear 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 September 3, 2020.

Thirteen Senior Reactor Operator (SRO) applicants passed both the operating test and written examination. There were no post-examination comments concerning the operating test. 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.

Sincerely,

/RA/

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

Docket Nos: 50-390, 50-391 License Nos: NPF-90, NPF-96

Enclosures:

- 1. Report Details
- 2. Simulator Fidelity Report

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SUBJECT: WATTS BAR NUCLEAR PLANT – NRC OPERATOR LICENSE EXAMINATION REPORT 05000390/2020301 AND 05000391/2020301 dated October 6, 2020

DISTIBUTION:

D. Dumbacher, RII G. McCoy, RII

* See previous page for concurrence

☐ PUBLICLY AVAILABLE ☐ NON-PUBLICLY AVAILABLE

ADAMS: Yes ACCESSION NUMBER ML20281A562 : _ SUNSI REVIEW COMPLETE FORM 665 ATTACHED

OFFICE	RII:DRS/OB1	RII:DRS/OB1	
NAME	DDUMBACHER	GMCCOY	
DATE	10/ 6 /2020	10/ 6/2019	
E-MAIL COPY?	YES NO	YES NO	

OFFICIAL RECORD COPY DOCUMENT NAME: G:\OLEXAMS\WATTS BAR EXAMINATIONS\INITIAL EXAM 2020-301\CORRESPONDENCE\EXAM REPORT\WB 2020-301 EXAM REPORT.REV 1.DOCX

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Examination Report

Docket No.:	05000390, 05000391	
License No.:	NPF-90, NPF-96	
Report No.:	05000390/2020301 and 05000391/2020301	
EPID No.:	L-2020-OLL-0027	
Licensee:	Tennessee Valley Authority	
Facility:	Watts Bar Nuclear Plant, Units 1 and 2	
Location:	Spring City, TN	
Dates:	Operating Test – August 24 -September 1, 2020 Written Examination – September 3, 2020	
Examiners:	 D. Dumbacher, Chief Examiner, Senior Operations Engineer M. Meeks, Senior Operations Engineer A. Goldau, Operations Engineer M. Donithan, Operations Engineer 	
Approved by:	Gerald J. McCoy, Chief Operations Branch 1 Division of Reactor Safety	

SUMMARY

ER 05000390/2020301 and 05000391/2020301; operating test August 24 – September 1, 2020 & written exam September 3, 2020; Watts Bar Nuclear Plant, Units 1 and 2; 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 Watts Bar Nuclear Plant staff developed both the operating test and the written examination. The initial operating test, 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 of August 24 - September 1, 2020. Members of the Watts Bar Nuclear Plant training staff administered the written examination on September 3, 2020. Thirteen SRO applicants passed both the operating test and written examination. Eight applicants were issued licenses commensurate with the level of examination administered on September 30, 2020. Although the other five applicants passed their examinations, the associated licenses will not be issued until Watts Bar notifies the NRC in writing that all deferred requirements have been met.

There were no post-examination comments.

No findings were identified.

REPORT DETAILS

3. OTHER ACTIVITIES

4OA5 Operator Licensing Examinations

a. Inspection Scope

The NRC evaluated the submitted operating test by combining the scenario events and job performance measures (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 August 24 – September 1, 2020. NRC examiners evaluated thirteen SRO applicants using the guidelines contained in NUREG-1021. Members of the Watts Bar Nuclear Plant training staff administered the written examination on September 3, 2020. Evaluations of applicants and reviews of associated documentation were performed to determine if the applicants, who applied for licenses to operate the Watts Bar Nuclear Plant, 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 Watts Bar Nuclear Plant training staff developed both the operating test and the written examination. 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 that the licensee's written examination and operating test submittals were within the range of acceptable quality for a proposed examination specified by NUREG-1021.

No issues related to examination security were identified during preparation and administration of the examination.

All applicants passed both the operating test and written examination and on September 30, 2020, eight of the applicants were issued licenses. Although the other five applicants passed their examinations, the associated licenses will not be issued until Watts Bar notifies the NRC in writing that all deferred requirements have been met.

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 no post-examination comments. A copy of the final written RO and SRO examinations and answer key may be accessed not earlier than October 2, 2022 in the ADAMS system (ADAMS Accession Numbers ML20276A151 and ML20276A205).

4OA6 Meetings, Including Exit

Exit Meeting Summary

On August 28, 2020 the NRC examination team discussed generic issues associated with the operating test with A. Williams, Site Vice President, and members of the Watts Bar 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	
Williams, Anthony -	WBN Site Vice President
Rice, Christopher –	WBN Director of Nuclear Plant Operations
McMullin, Matthew –	WBN Director of Nuclear Training
McIlnay, Brian S –	WBN Facility Representative / Shift Manager
Joplin, Russell Wayne –	Program Manager, Corporate Nuclear Exams
Williams, Pedro Arthur Jr -	WBN Operations Training Liaison / Shift Manager
Deschaine, Wesley David -	- NRC Senior Resident
O'Brien, Patrick Clinton –	WBN Initial License Training Supervisor
Gabosch, Timothy –	WBN Exam Project Manager

SIMULATOR FIDELITY REPORT

Facility Licensee: Watts Bar Nuclear Plant

Facility Docket No.: 050000390 and 050000391

Operating Test Administered: August 24 -September 1, 2020

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.

One simulator fidelity and two configuration issues were identified.

One simulator fidelity issue arose when the simulator ICS computer crashed. This caused the plant computer on the simulator to go down for the course of the scenario. The scenario was completed without the use of ICS. The licensee stated that the cause was indeterminate. Condition Report 1641066 was written to capture and correct the issue.

The first configuration issue was that JPM B Initial Condition (IC) was found to have had an error in the code. CR 1638012 was generated to address the issue. With the malfunction inserted, break flow goes to 0 after soon after going to run. There was an error introduced during IC construction that wasn't observed during validation due to the shorter run time but became readily apparent during the examination. All simulator Instructor Station indications were that the malfunction was inserted. The IC for JPM B has been repaired.

The second configuration issue was related to a JPM where a lockout relay indicating light was lit during validation but initially, for the first applicant, was not. This setup issue was corrected for the remaining applicants and did not affect the JPM result for the affected applicant.