



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

June 5, 2014

Mr. Joseph W. Shea
Vice President, Nuclear Licensing
Tennessee Valley Authority
1101 Market Street, LP 3D-C
Chattanooga, TN 37402-2801

SUBJECT: BROWNS FERRY NUCLEAR PLANT – NRC OPERATOR LICENSE
EXAMINATION REPORT 05000259/2014301, 05000260/2014301, AND
05000296/2014301

Dear Mr. Shea:

During the period April 28 – May 1, 2014, the Nuclear Regulatory Commission (NRC) administered operating tests to employees of your company who had applied for licenses to operate the Browns Ferry 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 May 9, 2014.

All applicants passed both the operating test and written examination. There were no post examination comments. A Simulator Fidelity Report is included in this report as Enclosure 2.

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 9, Supplement 1.

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) 997-4662

Sincerely,

/RA/

Eugene F. Guthrie, Chief
Operations Branch 2
Division of Reactor Safety

Docket Nos: 50-259, 50-260, 50-296
License Nos: DPR-33, DPR-52, DPR-68

Enclosures:

1. Report Details
2. Simulator Fidelity Report

cc: Distribution via Listserv

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PUBLICLY AVAILABLE
 NON-PUBLICLY AVAILABLE
 SENSITIVE
 NON-SENSITIVE
 ADAMS: Yes
 ACCESSION NUMBER: ML14156A462
 SUNSI REVIEW COMPLETE
 FORM 665 ATTACHED

OFFICE	RII:DRS	RII:DRS	RII:DRS	RII:DRS	RII:DRP	RII:DRS
SIGNATURE	BLC2 – EMAIL	DRL2 - EMAIL	GWL1 - EMAIL	JXV3	JHB1	EFG
NAME	BCABALLERO	DLANYI	GLASKA	JVIERA	JBARTLEY	EGUTHRIE
DATE	5/29/2014	5/29/2014	5/29/2014	5/30/2014	5/29/2014	6/5/2014
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: G:\OLEXAMS\BROWNS FERRY EXAMINATIONS\BF 2014-301 INITIAL EXAM (BRUNO)\CORRESPONDENCE\BROWNS FERRY 2014301 FINAL REPORT.DOCX

Letter to Joseph W. Shea from Eugene F. Guthrie dated June 5, 2014.

SUBJECT: BROWNS FERRY NUCLEAR PLANT – NRC OPERATOR LICENSE
EXAMINATION REPORT 05000259/2014301, 05000260/2014301, AND
05000296/2014301

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 50-259, 50-260, and 50-296

License No.: DPR-33, DPR-52, and DPR-68

Report No.: 05000259/2014301, 05000260/2014301, and 05000296/2014301

Licensee: Tennessee Valley Authority (TVA), LLC

Facility: Browns Ferry Nuclear Plant, Units 1, 2, and 3

Location: Athens, AL 35611

Dates: Operating Test – April 28 – May 1, 2014
Written Examination – May 9, 2014

Examiners: Bruno Caballero, Chief Examiner, Senior Operations Engineer
David Lanyi, Operations Engineer
Gerard Laska, Senior Operations Examiner
Joseph Viera, Examiner in training

Approved by: Eugene F. Guthrie, Chief
Operations Branch 2
Division of Reactor Safety

SUMMARY OF FINDINGS

ER 05000259/2014301, 05000260/2014301, 05000296/2014301; operating test April 28 – May 1, 2014 & written exam May 9, 2014; Browns Ferry Nuclear Plant, 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 Browns Ferry Nuclear Plant staff developed both the operating tests and the written examination.

The NRC administered the operating tests during the period April 28 – May 1, 2014. Members of the Browns Ferry Nuclear Plant training staff administered the written examination on May 9, 2014. All applicants passed the operating test and/or written examination, as applicable. All applicants were issued licenses commensurate with the level of examination administered.

There were no post-examination comments.

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 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 (Reactor Operator (RO) and Senior Reactor Operator (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/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 in Revision 9, Supplement 1, of NUREG-1021, "Operator Licensing Examination 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 April 28 – May 1, 2014. The NRC examiners evaluated five RO applicants and two SRO applicants using the guidelines contained in NUREG-1021. Members of the Browns Ferry Nuclear Plant training staff administered the written examination on May 9, 2014. Evaluations of applicants and reviews of associated documentation were performed to determine if the applicants, who applied for licenses to operate the Browns Ferry 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 or conduct of the operating tests.

b. Findings

No findings were identified.

Members of the Browns Ferry Nuclear Plant training staff developed both the operating tests and the written examination. All examination material was developed in accordance with the guidelines contained in 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 the acceptance criteria in NUREG-1021, that the licensee's initial examination submittal was within the range of acceptability expected for a proposed examination.

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

Five RO applicants and two SRO applicants passed both the operating test and written examination. Two SRO applicants, who previously passed an operating test, passed the written examination. Five RO applicants and four SRO applicants were issued licenses.

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 did not submit any post-examination comments. A copy of the final written examination and answer key, with all changes incorporated, may be accessed not earlier than May 5, 2016, in the ADAMS system (ADAMS Accession Number(s) ML14141A519 and ML14142A161).

4OA6 Meetings, Including Exit

Exit Meeting Summary

On May 1, 2014, the NRC examination team discussed generic issues associated with the operating test with Daniel L. Hughes, Senior Operations Manager, and members of the Browns Ferry 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

Daniel L. Hughes, Senior Manager, Operations
 Steve Austin, Site Licensing Engineer
 Eric Bates, Site Licensing Engineer
 Chris Vaughn, Operations Training Manager
 Donald C. Binkley, Jr., Operations Initial Training Supervisor
 Douglas Hakenewerth, Operations Facility Representative

NRC personnel

None

SIMULATOR FIDELITY REPORT

Facility Licensee: Browns Ferry Nuclear Plant

Facility Docket No.: 50-259, 50-260, 50-296

Operating Test Administered: April 28 – May 1, 2014

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>
PER 846183	The Unit 3 simulator lighting was darker than the actual Unit 3 control room lighting.
DCR B1529	The LPCI MG Set Removal Modification was not incorporated on the Unit 3 simulator; e.g., simulator annunciator window 9-8C, W24 (480 V RMOV Bd 3B or 3E Transfer) was not applicable to the actual Unit 3 control room.
PER 879775	PIP-02-03 (BFN Electrical Distribution Diagram) was included in both simulators even though the diagram did not reflect the LPCI MG Set Removal modification.