



Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609-2000

March 22, 2010

10 CFR 55.5

Mr. Luis A. Reyes
Regional Administrator
U.S. Nuclear Regulatory Commission
Atlanta Federal Center
61 Forsyth Street S.W.
Suite 23T85
Atlanta, Georgia 30303-8931

Attention: Malcolm T. Widmann

Browns Ferry Nuclear Plant, Units 1, 2, and 3
Facility Operating License Nos. DPR-33, DPR-52, and DPR-68
NRC Docket Nos. 50-259, 50-260, and 50-296

Subject: Submittal of Initial Operator Licensing Examination Outline

In this submittal, the Tennessee Valley Authority is providing all appropriate Examination Standard forms and outlines in accordance with NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1, for the upcoming Browns Ferry Nuclear Plant Units 1, 2, and 3 Initial Operator Licensing Examination.

Enclosed are the examination outlines, supporting the Initial License Examination scheduled for the week of June 7, 2010.

In accordance with NUREG-1021, Revision 9, Supplement 1, Section ES-201, "Initial Operator Licensing Examination Process," please ensure that these materials are withheld from public disclosure until after the examinations are administered.

Mr. Luis A. Reyes
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March 22, 2010

Should you have any questions regarding this matter, please contact
Mr. Daniel Zielinski, at (256) 729-2783.

Respectfully,

A handwritten signature in black ink, appearing to read "Keith J. Polson". The signature is fluid and cursive, with the first name "Keith" being the most prominent.

K. J. Polson
Vice President

Enclosure: Examination Outlines Supporting the Initial License Examination Scheduled
for the Week of June 7, 2010

cc: (w/o Enclosure)

NRC Chief, Operations Branch, Division of Reactor Safety - Region II
NRC Senior Resident Inspector - Browns Ferry Nuclear Plant

Enclosure

**Tennessee Valley Authority
Browns Ferry Nuclear Plant
Units 1, 2, and 3**

**Examination Outlines Supporting the Initial License Examination
Scheduled for the Week of June 7, 2010**

(See Attached)

Facility:		Date of Examination:		
Item	Task Description	Initials		
		a	b*	c#
1. W R I T T E N	a. Verify that the outline(s) fit(s) the appropriate model, in accordance with ES-401.	02	KB	
	b. Assess whether the outline was systematically and randomly prepared in accordance with Section D.1 of ES-401 and whether all K/A categories are appropriately sampled.	02	KB	
	c. Assess whether the outline over-emphasizes any systems, evolutions, or generic topics.	02	KB	
	d. Assess whether the justifications for deselected or rejected K/A statements are appropriate.	02	KB	
2. S I M U L A T O R	a. Using Form ES-301-5, verify that the proposed scenario sets cover the required number of normal evolutions, instrument and component failures, technical specifications, and major transients.	02	KB	
	b. Assess whether there are enough scenario sets (and spares) to test the projected number and mix of applicants in accordance with the expected crew composition and rotation schedule without compromising exam integrity, and ensure that each applicant can be tested using at least one new or significantly modified scenario, that no scenarios are duplicated from the applicants' audit test(s), and that scenarios will not be repeated on subsequent days.	02	KB	
	c. To the extent possible, assess whether the outline(s) conform(s) with the qualitative and quantitative criteria specified on Form ES-301-4 and described in Appendix D.	02	KB	
3. W / T	a. Verify that the systems walk-through outline meets the criteria specified on Form ES-301-2: (1) the outline(s) contain(s) the required number of control room and in-plant tasks distributed among the safety functions as specified on the form (2) task repetition from the last two NRC examinations is within the limits specified on the form (3) no tasks are duplicated from the applicants' audit test(s) (4) the number of new or modified tasks meets or exceeds the minimums specified on the form (5) the number of alternate path, low-power, emergency, and RCA tasks meet the criteria on the form.	02	KB	
	b. Verify that the administrative outline meets the criteria specified on Form ES-301-1: (1) the tasks are distributed among the topics as specified on the form (2) at least one task is new or significantly modified (3) no more than one task is repeated from the last two NRC licensing examinations	02	KB	
	c. Determine if there are enough different outlines to test the projected number and mix of applicants and ensure that no items are duplicated on subsequent days.	02	KB	
4. G E N E R A L	a. Assess whether plant-specific priorities (including PRA and IPE insights) are covered in the appropriate exam sections.	02	KB	
	b. Assess whether the 10 CFR 55.41/43 and 55.45 sampling is appropriate.	02	KB	
	c. Ensure that K/A importance ratings (except for plant-specific priorities) are at least 2.5.	02	KB	
	d. Check for duplication and overlap among exam sections.	02	KB	
	e. Check the entire exam for balance of coverage.	02	KB	
	f. Assess whether the exam fits the appropriate job level (RO or SRO).	02	KB	
a. Author <u>Daniel Z. Zelinski</u> Printed Name/Signature <u>Daniel Z. Zelinski</u> Date <u>3-17-2010</u> b. Facility Reviewer (*) <u>Keith W. Benefield</u> <u>Keith W. Benefield</u> <u>3-17-10</u> c. NRC Chief Examiner (#) _____ d. NRC Supervisor _____				
Note: # Independent NRC reviewer initial items in Column "c"; chief examiner concurrence required. * Not applicable for NRC-prepared examination outlines				



Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609-2000

April 12, 2010

10 CFR 55.5
10 CFR 55.40(b)(3)

Mr. Luis A. Reyes
Regional Administrator
U.S. Nuclear Regulatory Commission
Marquis One Tower
245 Peachtree Center Avenue, NE
Suite 1200
Atlanta, Georgia 30303-1257

Attention: Malcolm T. Widmann

Browns Ferry Nuclear Plant, Units 1, 2, and 3
Facility Operating License Nos. DPR-33, DPR-52, and DPR-68
NRC Docket Nos. 50-259, 50-260, and 50-296

Reference: Letter from the Nuclear Regulatory Commission to the Tennessee Valley Authority dated February 9, 2010, "Browns Ferry Nuclear Plant - Notification of Licensed Operator Initial Examination"

Subject: **Submittal of Initial Operator Licensing Examinations**

In accordance with the referenced NRC letter dated February 9, 2010, the Tennessee Valley Authority is providing written examinations, operating tests and supporting reference materials in accordance with NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1. The Browns Ferry Nuclear Plant (BFN) Units 1, 2, and 3 Initial Operator Licensing Examination is scheduled for the week of June 7, 2010. In order to meet the examination schedule, BFN was requested by the NRC to furnish this material by April 12, 2010.

Enclosed are the written examinations, operating tests and supporting reference materials for the Reactor Operators and Senior Reactor Operators examination to be given the week of June 7, 2010. The enclosed materials have been approved for use by BFN in accordance with 10 CFR 55.40(b)(3).

Mr. Luis A. Reyes
Page 2
April 12, 2010

In accordance with NUREG-1021, Revision 9, Supplement 1, Section ES-201, "Initial Operator Licensing Examination Process," please ensure that these materials are withheld from public disclosure until after the examinations are administered.

Should you have any questions regarding this matter, please contact Mr. Daniel Zielinski, at (256) 729-2783.

Respectfully,



K. J. Polson
Vice President

Enclosure: Written Examinations, Operating Tests, and Supporting Reference Materials - Operator License Examinations Scheduled for the Week of June 7, 2010

cc: (w/o Enclosure)

NRC Chief, Operations Branch, Division of Reactor Safety - Region II
NRC Senior Resident Inspector - Browns Ferry Nuclear Plant

Enclosure

**Tennessee Valley Authority
Browns Ferry Nuclear Plant
Units 1, 2, and 3**

**Written Examinations, Operating Tests, and Supporting Reference Materials -
Operator License Examinations Scheduled for the Week of June 7, 2010**

This enclosure contains the following:

1. A notebook containing the following:
 - ES-201-3, Examination Security Agreement
 - ES-301-3, Operating Test Quality Checklist
 - ES-301-4, Simulator Scenario Quality Checklist
 - ES-401-6, Written Exam Quality Checklist
 - Three surveillances for the Job Performance Measure examination
2. Iron Key USB drive containing the Operator examination and references

Personally Identifiable Information - Withhold Under 10 CFR 2.390



Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609-2

June 24, 2010

10 CFR 55.5

Mr. Luis A. Reyes
Regional Administrator
U.S. Nuclear Regulatory Commission
Marquis One Tower
245 Peachtree Center Avenue, NE, Suite 1200
Atlanta, Georgia 30303-1257

Attention: Malcolm T. Widmann

Browns Ferry Nuclear Plant
Facility Operating License Nos. DPR-33, DPR-52, and DPR-68
NRC Docket Nos. 50-259, 50-260, and 50-296

Subject: **Reactor Operator and Senior Reactor Operator Initial License
Written Examinations - Post Examination Response**

The Tennessee Valley Authority (TVA) administered the final NRC Written Examination for the Browns Ferry Nuclear Plant (BFN) Reactor Operator (RO) and Senior Reactor Operator (SRO) Initial License Training (ILT) Class 1006 on June 17, 2010. The supporting documentation specified by Section ES-501 of NUREG 1021, Revision 9, Supplement 1, "Operator Licensing Examination Standards for Power Reactors," Post Examination Activities is enclosed. The enclosure content listing is provided at the end of this letter.

The results were seven of eight SRO candidates passed the written examination and three of four RO candidates passed the RO portion of the written examination.

Luis A. Reyes
Page 2
June 24, 2010

Analysis of the examination indicated four questions, numbers 46, 73, 91, and 92, had a 50 percent or greater failure rate. Additionally, there were specific comments posed by the candidates during the post-examination review.

The results of this analysis, where applicable, will be forwarded to the ILT Supervisor for potential inclusion in the appropriate training material.

The enclosures to this letter are considered by TVA to be of a personal nature and, as such, are requested to be withheld from public disclosure in accordance with 10 CFR 2.390(a)(6).

If you have any questions or comments, please telephone Mr. David A. Malinowski at (256) 729-3439.

Respectfully,



K. J. Polson
Vice President

Enclosures:

- Enclosure 1 - Form ES-403-1, Written Examination Grading Quality Check
- Enclosure 2 - Graded Written Examinations (Each Applicant's Original Answer and Examination Cover Sheets) and a Clean Copy of Each Applicant's Answer Sheet
- Enclosure 3 - Master Examination(s) Excerpt Annotated to Indicate Any Changes Made While Administering the Examination – No Changes Were Made
- Enclosure 4 - Questions Asked By and Answers Given to the Applicants During the Written Examination
- Enclosure 5 - Substantive Comments Made By the Applicants Following the Written Examination
- Enclosure 6 - Examination Seating Chart
- Enclosure 7 - Results of Any Written Examination Performance Analysis That Was Performed, With Recommended Substantive Changes

Personally Identifiable Information - Withhold Under 10 CFR 2.390

Enclosure 1

**Browns Ferry Nuclear Plant
Units 1, 2, and 3**

**Reactor Operator and Senior Reactor Operator Initial
License Written Examination - Post Examination Response**

Form ES-403-1, Written Examination Grading Quality Check

(See Attached)

Personally Identifiable Information - Withhold Under 10 CFR 2.390

Enclosure 2

**Browns Ferry Nuclear Plant
Units 1, 2, and 3**

**Reactor Operator and Senior Reactor Operator Initial
License Written Examination - Post Examination Response**

**Graded Written Examinations
(Each Applicant's Original Answer and Examination Cover Sheets)
and a Clean Copy of Each Applicant's Answer Sheet**

(See Attached)

Personally Identifiable Information - Withhold Under 10 CFR 2.390

Enclosure 3

**Browns Ferry Nuclear Plant
Units 1, 2, and 3**

**Reactor Operator and Senior Reactor Operator Initial
License Written Examination - Post Examination Response**

**Master Examination(s) Excerpt Annotated to Indicate Any Changes Made While
Administering the Examination - No Changes Were Made**

(See Attached)

Personally Identifiable Information - Withhold Under 10 CFR 2.390

Enclosure 4

**Browns Ferry Nuclear Plant
Units 1, 2, and 3**

**Reactor Operator and Senior Reactor Operator Initial
License Written Examination - Post Examination Response**

**Questions Asked By and Answers Given to the Applicants
During the Written Examination**

(See Attached)

Personally Identifiable Information - Withhold Under 10 CFR 2.390

Enclosure 5

**Browns Ferry Nuclear Plant
Units 1, 2, and 3**

**Reactor Operator and Senior Reactor Operator Initial
License Written Examination - Post Examination Response**

**Substantive Comments Made By the Applicants
Following the Written Examination**

(See Attached)

Personally Identifiable Information - Withhold Under 10 CFR 2.390

Enclosure 6

**Browns Ferry Nuclear Plant
Units 1, 2, and 3**

**Reactor Operator and Senior Reactor Operator Initial
License Written Examination - Post Examination Response**

Examination Seating Chart

(See Attached)

Personally Identifiable Information - Withhold Under 10 CFR 2.390

Enclosure 7

**Browns Ferry Nuclear Plant
Units 1, 2, and 3**

**Reactor Operator and Senior Reactor Operator Initial
License Written Examination - Post Examination Response**

**Results of Any Written Examination Performance Analysis That Was Performed, With
Recommended Substantive Changes**

(See Attached)

Personally Identifiable Information - Withhold Under 10 CFR 2.390

Enclosure 1

**Browns Ferry Nuclear Plant
Units 1, 2, and 3**

**Reactor Operator and Senior Reactor Operator Initial
License Written Examination - Post Examination Response**

Form ES-403-1, Written Examination Grading Quality Check

(See Attached)