

January 2, 1990

Docket Nos. 50-259, 50-260  
and 50-296

Mr. Oliver D. Kingsley, Jr.  
Senior Vice President, Nuclear Power  
Tennessee Valley Authority  
6N 38A Lookout Place  
1101 Market Street  
Chattanooga, Tennessee 37402-2801

Dear Mr. Kingsley:

SUBJECT: EXEMPTION FROM 10 CFR 55.45(b)(2)(iii) AND (iv) (TAC NOS. 77141,  
77142 AND 77143)

In a letter dated July 13, 1990, the Tennessee Valley Authority (TVA) requested a temporary exemption from the filing requirements of 10 CFR 55.45(b)(2)(iii). Furthermore, TVA requested a temporary exemption from 10 CFR 55.45 (b)(2)(iv) that would allow TVA to continue administering the simulation portion of operating tests on the current Browns Ferry simulator until the new simulator is certified. The NRC staff has reviewed TVA's letter and decided to grant the requested exemptions.

Enclosed is the Exemption granted by the staff to TVA for 10 CFR 55.45(6)(2)(iii) and (iv); it is effective immediately and expires on December 31, 1991.

Sincerely,

*Frederick J. Hebdon*  
Frederick J. Hebdon, Director  
Project Directorate II-4  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosure:  
As stated

cc w/enclosure:  
See next page

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Document Name: BFN EXEMPTION

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Mr. Oliver D. Kingsley, Jr.

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
TENNESSEE VALLEY AUTHORITY	)	Docket Nos. 50-259, 50-260, 50-296
	)	
(Browns Ferry Nuclear Plant Units 1, 2 and 3)	)	

EXEMPTION

I.

The Tennessee Valley Authority (TVA or the licensee) is the holder of Operating License Nos. DPR-33, DPR-52 and DPR-68 which authorize operation of the Browns Ferry Nuclear Plant, Units 1, 2 and 3, respectively. These licenses provide, among other things, that Browns Ferry (BFN), is subject to all rules, regulations, and Orders of the Commission now or hereafter in effect. BFN, Units 1, 2 and 3 are boiling water reactors (BWR) at the licensee's site located near Decatur, Alabama.

The revision to 10 CFR Part 55, "Operators' Licenses," which became effective on May 26, 1987, established requirements for the administration of operating tests on nuclear power plant simulators. These regulations, in conjunction with 10 CFR 50.54(i-1), require facility licensees to use simulation facilities when administering operating tests for initial licensing and requalification. These regulations further require that a certified or NRC-approved simulation facility must be used to administer operating tests after May 26, 1991. By letter dated July 13, 1990, TVA requested an exemption concerning the schedule requirements for certification of a plant-referenced simulator.

II.

The licensee intends to comply with 10 CFR 55.45(b) by certifying a plant-referenced simulator. Section 55.45(b)(2)(iii) of 10 CFR Part 55 requires that facility licensees proposing to use a simulation facility consisting solely of a plant-referenced simulator submit Form NRC-474, "Simulation Facility Certification," no later than 46 months after the effective date of this rule, that is, by March 26, 1991. On July 13, 1990, TVA requested an exemption from this filing requirement to allow for the submittal of NRC Form-474 after March 26, 1991, but no later than December 31, 1991. Additionally, TVA requested an exemption from the requirements of 10 CFR 55.45(b)(2)(iv) to allow the simulation facility portion of the operating tests to be administered on the existing BFN simulator prior to certification of their new simulator.

After assessing the capabilities of the existing BFN simulator pursuant to the requirements for its certification, TVA elected to replace its current simulator software, instructor's station and computer complex and only retain the existing control panels. Although the existing simulator could have been certified with a number of exceptions, the licensee concluded that the best approach to meeting their training and certification needs was to purchase a new simulator. The exemption was requested because the replacement simulator will not be ready for certification by March 26, 1991.

The existing BFN simulator became operational in 1976. The licensee has implemented numerous design changes over the past 13 years to ensure the existing simulator reflected the operating plant. However, after a detailed

analysis, which included a comparison of simulator transient data to best-estimate engineering code data, TVA concluded that major software modifications were warranted which were not practical to implement with the existing computer software and hardware.

TVA proposes to comply with 10 CFR 55.45(b) for BFN by certifying a plant referenced simulator by December 31, 1991. The licensee also proposes to continue to use the existing BFN simulator to administer the simulation facility portion of operating tests until the new simulator is certified. During the proposed exemption period, from May 26, 1991 until certification of the new simulator, three sets of operating tests are scheduled. In May and June of 1991, the 1991 annual operating tests for operator requalification are scheduled. Also in June of 1991, initial licensing examinations are scheduled for 12 candidates: five reactor operators (ROs) and seven senior reactor operators (SROs). In December of 1991, initial licensing examinations are scheduled for 24 candidates: sixteen ROs and eight SROs.

### III.

The Commission has determined, pursuant to 10 CFR 55.11, that this exemption is authorized by law and will not endanger life or property and is otherwise in the public interest. Furthermore, the Commission has determined, pursuant to 10 CFR 50.12(a), that special circumstances of 10 CFR 50.12(a)(2)(v) are applicable in that the exemption would provide only temporary relief from the applicable regulation and the licensee has made good faith efforts to comply with the regulation. This exemption grants a temporary relief period of nine months from the March 1991 date for submittal of the BFN simulation facility certification. Additionally, this exemption allows the

licensee to continue to use the existing BFN simulator for the administration of the simulation facility portion of operating tests scheduled before December 31, 1991 or until the new simulator is certified if this occurs sooner.

Good faith efforts to comply with the regulation were made as follows:

- (1) The existing BFN simulator became ready for training in 1976 and the licensee has kept it up-to-date by installing modifications made to BFN Unit 2.
- (2) In May 1988, TVA completed the engineering specifications for the new simulator.
- (3) In June 1988, TVA solicited competitive proposals in accordance with the requirements of the Federal Acquisition Regulations.
- (4) In December 1988, proposal evaluations were completed. Final negotiations were concluded in February 1989.
- (5) On March 31, 1989, the contract for the new simulator was awarded.
- (6) The new simulator is scheduled to be ready for training in November 1991.

The Commission hereby grants an exemption from the schedular requirements of 10 CFR 55.45(b)(2)(iii) for submittal of NRC Form-474, "Simulation Facility Certification." This exemption is effective until December 31, 1991.

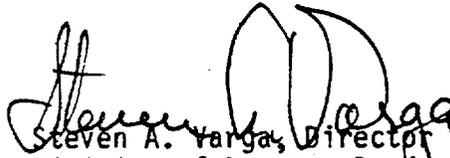
Furthermore, the Commission hereby grants an exemption from the requirement of 10 CFR 55.45(b)(2)(iv) for administration of the simulation facility portion of operating tests only on certified or approved simulation facilities after May 26, 1991. This exemption is effective until receipt of NRC Form-474 but does not include any operating tests after December 31, 1991.

Pursuant to 10 CFR 51.32, the Commission has determined that the issuance of the exemption will have no significant impact on the environment (55 FR 53372, December 28, 1990).

The licensee's exemption request dated July 13, 1990 is available for public inspection at the Commission's Public Document Room, 2120 L Street, N.W., Washington, D.C. and at the Local Public Document Room located at Athens Public Library, South Street, Athens, Alabama 35611.

This exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "Steven A. Yarga". The signature is written in a cursive style with a large, stylized initial "S".

Steven A. Yarga, Director  
Division of Reactor Projects I/II  
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland  
this 19th day of December 1990.

Distribution

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