JUN 2 6 1973

Docket No. 50-259

Tennessee Valley Authority
ATTN: Mr. James E. Watson
Manager of Power
818 Power Building
Chattanooga, Tennessee 37401

Gentlemen:

Pursuant to the presiding Atomic Safety and Licensing Board's "Order on Applicant's Motion for an Order Authorizing Fuel Loading, Testing and Operation of Unit 1," dated June 15, 1973, the Atomic Energy Commission has issued Facility Operating License No. DPR-33 (copy enclosed) to the Tennessee Valley Authority for the Browns Ferry Nuclear Plant, Unit 1. The license authorizes fuel loading, low-power testing and operation of Unit 1 at power levels not in excess of 2470 megawatts thermal (75 percent of the facility's rated power level of 3293 megawatts thermal), in accordance with the Technical Specifications appended thereto. However, activities under the license are temporarily limited to fuel loading, low-power testing and operation at one (1) percent of the rated power level until certain matters identified by the Directorate of Regulatory Operations have been satisfactorily resolved. Tennessee Valley Authority will be notified when the facility can be operated at power levels not in excess of 2470 megawatts thermal.

A related notice, which has been forwarded to the Office of the Federal Register for filing and publication, is enclosed for your information. You have already been provided a copy of the Atomic Safety and Licensing Board's Order.

Two signed copies of Amendment No. 3 to Indemnity Agreement No. B-52, which covers the activities authorized under License No. DPR-33, are enclosed for your review and acceptance. Please sign and return one copy of the amendment to this office.

Sincerely,

Original Signed by John F. Stolz

Voss A. Moore, Assistant Director Boiling Water Reactors Branch 2 Directorate of Licensing

Enclosures: (see next page)

OFFICE ▶

SURNAME ▶

DATE ▶

Form AEC-318 (Rev. 9-53) AECM 0240

GPO 043-18-81465-1 445-078

Enclosures:

- Facility Operating License DPR-33
 w/Technical Specifications
 (Appendices A and B)
- 2. Federal Register Notice
- 3. Amendment No. 3 to Indemnity (will be sent Agreement No. B-52

cc: Mr. Robert H. Marquis General Counsel 629 New Sprankle Building Knoxville, Tennessee 37919

> Honorable William J. Baxley Attorney General State of Alabama Montgomery, Alabama 36104

Honorable Henry H. Caddell Assistant Attorney General State of Alabama Montgomery, Alabama 36104

Mr. Frank L. Parker
Environmental and Water Resources
Engineering
Vanderbilt University
Nashville, Tennessee 37235

Distribution:

AEC PDR

Local PDR

Docket File

BWR-2 File

RP Reading (w/o Tech Specs) Attorney, OGC (Bob Newton)

Regulatory Operations (3)

N. Dube (w/o Tech Specs)

M. Jinks (w/4 encls.)

V. A. Moore

R. Vollmer (Tech Specs. Only)

C. Hebron, F&M (OL only)

D. Foster, F&M (OL only)

R. Chitwood, F&M

A. Braitman, A&I (w/o Tech Specs)

F. Williams

H. Smith

S. Kari (w/o Tech Specs)

W. Miller, DR:AO (w/o Tech Specs)

R. Clark, EP Project Manager (OL)

BWR Br. Cfs. (w/o Tech Specs)

I. P. Dinitz ACRS (16)

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surname ► HSmith: ew FWilliam	is JFStolz	TRESIDATE		VAMoore VAM
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UNITED STATES ATOMIC ENERGY COMMISSION

WASHINGTON, D.C. 20545

TENNESSEE VALLEY AUTHORITY

(BROWNS FERRY NUCLEAR PLANT, UNIT 1)

DOCKET NO. 50-259

FACILITY OPERATING LICENSE

License No. DPR-33

- 1. The Atomic Energy Commission (the Commission) having found that:
 - A. The application for license filed by the Tennessee Valley Authority (the licensee) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I and all required notifications to other agencies or bodies have been duly made;
 - B. Construction of the Browns Ferry Nuclear Plant, Unit 1 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-29 and the application, as amended, the provisions of the Act and the rules and regulations of the Commission;
 - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - D. There is reasonable assurance: (i) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the rules and regulations of the Commission;
 - E. The licensee is technically and financially qualified to engage in the activities authorized by this operating license in accordance with the rules and regulations of the Commission;
 - F. The licensee has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
 - G. The issuance of this operating license will not be inimical to the common defense and security or to the health and safety of the public;

- H. After weighing the environmental, economic, technical and other benefits of the facility against environmental costs and considering available alternatives, the issuance of Facility Operating License DPR-33, subject to the conditions for the protection of the environment set forth herein, is in accordance with Section A.12 of Appendix D to 10 CFR Part 50, of the Commission's regulations; and
- I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40, and 70, including 10 CFR Sections 30.33, 40.32, 70.23, and 70.31.
- 2. Pursuant to the Atomic Safety and Licensing Board's "Order on Applicant's Motion for an Order Authorizing Fuel Loading, Testing and Operation of Unit 1," dated June 15, 1973, Facility Operating License No. DPR-33 is hereby issued to the Tennessee Valley Authority, in accordance with Sections 50.57(c) and A.12 of Appendix D to 10 CFR Part 50, to read as follows:
 - A. This license applies to the Browns Ferry Nuclear Plant, Unit 1, a boiling water nuclear reactor and associated equipment (the facility), owned by the Tennessee Valley Authority. The facility is located in Limestone County, Alabama, and is described in the "Final Safety Analysis Report" (Amendment 9) as supplemented and amended (Amendments 10 through 50), the licensee's Draft Environmental Statement and supplement thereto dated July 1971, and November 8, 1971, respectively, and the licensee's Final Environmental Statement dated September 1, 1972.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Tennessee Valley Authority:
 - (1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility at the designated location in Limestone County, Alabama, in accordance with the procedures and limitations set forth in this license;
 - (2) Pursuant to the Act and 10 CFR Part 70, "Special Nuclear Material," to receive, possess, and use at any time up to 6000 kilograms of contained uranium 235 in connection with operation of the facility;
 - (3) Pursuant to the Act of 10 CFR Part 30, "Rules of General Applicability to Licensing of Byproduct Material," to receive, possess, and use in connection with operation of the facility:

- a. Any byproduct material with Atomic Numbers 3 through 83, up to 50 millicuries, without restriction as to the chemical or physical form, and not to exceed 10 millicuries per isotope
- b. Cobalt-60, up to 0.8 millicurie in the form of sealed sources, not to exceed 350 microcuries per source
- c. Strontium-90, up to 0.01 millicurie in the form of sealed sources, not to exceed 1.2 microcuries per source
- d. Cesium-137, up to 0.1 millicurie as sealed sources, not to exceed 5 microcuries per source
- e. Sodium-24, up to 500 millicuries without restriction as to chemical or physical form
- f. Hydrogen-3, not to exceed 250 millicuries as foil contained in a detector cell
- g. Americium-241, 1 sealed source of 10 curies in the form of an Americium-Beryllium neutron source, and 1 millicurie in the form of sealed or plated sources
- h. Antimony-124, not to exceed 1200 curies each of 14 Antimony-Beryllium neutron sources
- i. Tritium, two 250 millicurie sources to be used with the Varian gas chromatograph;
- (4) Pursuant to the Act and 10 CFR Part 40, "Licensing of Source Material," to receive, possess, and use 12,250 kilograms of normal uranium in connection with operation of the facility; and
- (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.
- C. This license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to load fuel, conduct low-power testing, and operate the facility short of full power at a power level not to exceed 2470 megawatts thermal (75 percent of the facility's rated power level of 3293 megawatts thermal).

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B attached hereto are hereby incorporated in this license. The licensee shall operate the facility in accordance with these Technical Specifications. No changes shall be made in these Technical Specifications unless authorized by the Commission in accordance with the provisions of Section 50.59 of 10 CFR Part 50.

- (3) In the operation of the facility, the licensee shall, pursuant to the Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500), comply with all applicable thermal water quality standards of the State of Alabama and the United States.
- D. This license is issued without prejudice to subsequent licensing action which may be taken by the Commission with regard to the environmental aspects of the facility. Issuance of this license shall not preclude subsequent adoption of alternatives in facility design or operations of the type that could result from the environmental review required by 10 CFR Part 50, Appendix D.
- E. This license is effective as of the date of issuance and shall expire at midnight on December 26, 1974, unless extended for good cause shown, or upon earlier issuance of a subsequent licensing action.

FOR THE ATOMIC ENERGY COMMISSION

A. Giambusso, Deputy Director for Reactor Projects

Directorate of Licensing

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Attachments: Technical Specifications -Appendices A and B

Date of Issuance: June 26, 1973

UNITED STATES ATOMIC ENERGY COMMISSION

DOCKET NO. 50-259

TENNESSEE VALLEY AUTHORITY

(BROWNS FERRY NUCLEAR PLANT, UNIT 1)

NOTICE OF ISSUANCE OF A FACILITY OPERATING LICENSE

Notice is hereby given that pursuant to the presiding Atomic Safety and Licensing Board's "Order on Applicant's Motion for an Order Authorizing Fuel Loading, Testing and Operation of Unit 1," dated June 15, 1973, the Atomic Energy Commission (the Commission) has issued Facility Operating License No. DPR-33 to the Tennessee Valley Authority (the licensee) authorizing fuel loading, low-power testing and operation of the Browns Ferry Nuclear Plant, Unit 1, (the facility), at reactor core power levels not in excess of 2470 megawatts (thermal), in accordance with the provisions of the license and the Technical Specifications. However, activities under the license are temporarily being limited to fuel loading, low-power testing, and operation at one (1) percent of the rated power level until certain matters identified by the Directorate of Regulatory Operations have been satisfactorily resolved. The facility is a boiling water nuclear reactor located at the licensee's site in Limestone County, Alabama.

The Director of Regulation has made appropriate findings as required by the Act and the Commission's regulations in 10 CFR Chapter I, which are set forth in the license. The application for the license complies with the requirements of the Atomic Energy Act of 1954, as amended, and the Commission's regulations in 10 CFR Chapter I.

The license is effective as of the date of issuance and shall expire

on December 26, 1974, unless extended for good cause shown or upon the earlier issuance of a superseding operating license.

A copy of (1) the Atomic Safety and Licensing Board's Order, dated June 15, 1973, (2) Facility Operating License No. DPR-33, complete with Technical Specifications (Appendices "A" and "B", (3) the licensee's Draft Environmental Statement dated July 1971, and supplement thereto dated November 8, 1971, (4) the report of the Advisory Committee on Reactor Safeguards, dated September 21, 1972, (5) the Directorate of Licensing's Safety Evaluation dated June 26, 1972, and supplements thereto dated December 21, 1972, and June 22, 1973, (6) the Final Safety Analysis Report and amendments thereto, and (7) the licensee's Final Environmental Statement dated September 1, 1972, are available for public inspection at the Commission's Public Document Room at 1717 H Street, N.W., Washington, D.C. 20545, and the Athens Public Library, South and Forrest, Athens, Alabama 35611. Single copies of items (2) and (5) may be obtained upon request addressed to the United States Atomic Energy Commission, Washington, D.C. 20545, Attention: Deputy Director for Reactor Projects, Directorate of Licensing.

Dated at Bethesda, Maryland, this 26th day of June, 1973.

FOR THE ATOMIC ENERGY COMMISSION

John F. Stolz, Chief

Moiling Water Reactors Branch No. 2

Directorate of Licensing

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APPLICANT Tennessee Valley Authority	DOCKET NO. 50-259
FACILITY Browns Ferry Nuclear Plant, Unit 1	
PROJECT MANAGER F. (Mike) Williams	
LICENSING ASSISTANT Hazel Smith	DATE
Notice of Consideration of Issuance of License: Published in FEDERAL REGISTER (37 FR 19394) Action Date OR	9-20-72 10-21-72
Initial Decision or Order	6-15-73
Safety Review:	6-26-72
L Safety Evaluation	9-21-72
ACRS Letter Environmental Review:	9-1-72
Final Environmental Statement	9-23-72
Published in FEDERAL REGISTER (37 FR 20052)	
Antitrust Review: OAI Concurrences	'N/A
Notifications Required by Act & Commission Rules*: State Official Local Official Water Quality Certification: Submittal by Applicant Transmitted to EPA	10-15-70 12-11-70 N/A N/A
License Fee: Amount: \$359,650 Paid	6-14-73
Indemnity Agreement: OAI Concurrence	6-22-73
Status of Outstanding Construction Items Checked w/RO	6-15-73
Regulatory Operations Final Report: (If Available)	6-22-73 -
Technical Specifications: RP Concurrence EP Concurrence	6-22-73 6-20-73
Public Announcement (to be released): (If Available)	undated
Issuance Package: OGC Concurrence 1. License 2. FEDERAL REGISTER Notice 3. Letter to Applicant 4. Information Report	6-22-73 6-22-73 6-22-73 6-26-73

Revised: MAY 7 1973

[★] Date Initial Application Forwarded