Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402-2801

Oliver D. Kingsley, Jr.
President, TVA Nuclear and Chief Nuclear Officer

November 3, 1995

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of the Application of) Docket Nos. 50-390
Tennessee Valley Authority) 50-391

WATTS BAR NUCLEAR PLANT (WBN) - REQUEST FOR OPERATING LICENSE

The Tennessee Valley Authority (TVA) is pleased to inform you that it has completed the work necessary to load fuel and begin low power operations at WBN Unit 1. The plant has been designed and constructed in accordance with the application, including the Final Safety Analysis Report (FSAR) and other TVA commitments. The final version of the Technical Specifications (TS) accurately reflects the as-built design of Unit 1 as documented in the FSAR. TVA provided certification of the TS in a letter dated August 2, 1995.[1] Activities governing system operability are currently being conducted in accordance with the TS.

The bases for TVA's confidence that WBN Unit 1 is ready for fuel load and operation include the following efforts:

- ***Completion of the actions required for fuel load included in the Watts Bar Nuclear Performance Plan (WBNPP), Volume 4***: The WBNPP, initially submitted to the NRC on May 22, 1989, and supplemented on September 6, 1991, was developed to demonstrate, upon completion, that the plant has been designed and constructed in accordance with applicable regulatory requirements and TVA commitments.

[1] The final photo-ready copy of the TS was submitted to the NRC on October 18, 1995. Changes made to the TS subsequent to the August 2, 1995, letter do not affect the conclusions specified in that letter.

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- ***Performance of a Reasonable Assurance Assessment Review***: This review, conducted by a multi-discipline team over a five-month period, examined WBN's readiness to load fuel and commence operations. The team concluded that upon satisfactory completion of scheduled activities and associated corrective actions, there would be reasonable assurance -- from design, construction, associated records, oversight, and operational perspectives -- of WBN's readiness to load fuel and begin operations.[2] This conclusion was confirmed by TVA's Integrated Design Inspection (IDI) and the second Hot Functional Test (HFT 2).

- ***Conduct of IDI***: The WBN Nuclear Assurance organization conducted an in-depth audit of the auxiliary feedwater system (AFW)--a complex system, representative of other plant systems. The IDI concluded that the design, construction, inspection processes, and corrective action programs associated with the AFW system have been adequately implemented at WBN Unit 1.

- ***Completion of Preoperational Testing***: TVA has completed all startup and preoperational testing at WBN Unit 1. Major tests included the Integrated Testing Sequence (ITS), Integrated Leak Rate Testing (ILRT), Open Vessel Testing (OVT), and the first and second Hot Functional Tests. In particular, HFT 2 was conducted at WBN Unit 1 from July 19 through August 24, 1995, to resolve test deficiencies identified during the first HFT and to provide an opportunity to demonstrate WBN's operational readiness. During HFT 2, site management and Nuclear Assurance conducted comprehensive assessments to determine whether tests were performed in accordance with management expectations and the applicable procedures. Site management and Nuclear Assurance concluded that testing, operations, and support activities were acceptable and that the systems that were tested performed in a satisfactory manner to support the safe operation of the plant during fuel loading and subsequent operations.

On the basis of these and related efforts, TVA has concluded that WBN Unit 1 is prepared to load fuel and begin low power operations. TVA has an application pending before the Commission for a WBN Unit 1 operating license. TVA hereby requests that you complete all steps necessary for the issuance of a 40-year operating license to permit fuel loading and operation at power levels up to five percent of rated power.

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[2] TVA provided the NRC with a copy of the Reasonable Assurance Assessment Report (RAAR) on June 28, 1995.

All information necessary to support this request has been submitted to the NRC Staff.

Sincerely,

O. D. Kingsley, Jr.

Subscribed and sworn to before
me on this 3rd day of November 1995

E. Jeannette Long
Notary Public

My Commission Expires July 1, 1997

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