UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-390

WATTS BAR NUCLEAR PLANT, UNIT 1

FACILITY OPERATING LICENSE

License No. NPF-90

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:

   A. The application for license filed by the Tennessee Valley Authority (TVA, the licensee) complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's 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 Watts Bar Nuclear Plant, Unit 1 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-91 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 (except as exempted from compliance in Section 2.D below);

   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 Commission's regulations set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.D below);

   E. TVA is technically qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;

   F. TVA has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;

ENCLOSURE 1

NO CHANGES THIS PAGE

9701210332 960110
PDR ADOCK 05000390
P PDR

G. The issuance of this 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 and other costs and considering available alternatives, the issuance of this Facility Operating License No. NPF-90, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied; 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 (except that an exemption to the provisions of 70.24 is granted as described in paragraph 2.D below).

2. Based on the foregoing findings regarding this facility, Facility Operating License NPF-20 (dated November 9, 1995), is superseded by Facility Operating License No. NPF-90, and is hereby issued to the Tennessee Valley Authority to read as follows:

A. This license applies to the Watts Bar Nuclear Plant, Unit 1, a pressurized water reactor and associated equipment (the facility) owned by TVA. The facility is located on the west bank of the Chickamauga Lake on TVA's site in Rhea County, Tennessee, and is described in TVA's Final Safety Analysis Report, as supplemented and amended up to Amendment No. 91 and in the Environmental Report, as supplemented and amended;

B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses:

(1) TVA, pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, use, and operate the facility at the designated location in Rhea County, Tennessee, in accordance with the procedures and limitations set forth in this license;

(2) TVA, pursuant to the Act and 10 CFR Part 70, to receive, possess, and use at any time, special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, and as described in the Final Safety Analysis Report, as supplemented and amended;

(3) TVA, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time, any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;

NO CHANGES THIS PAGE

D. The following exemptions are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. Therefore, these exemptions are granted pursuant to 10 CFR 50.12.

INSERT

Deleted

(1) ~~The facility requires a schedular exemption from 10 CFR 50, Appendix J, Section III.D.2(b)(ii). The justification for this exemption is contained in Section 6.2.6 of Supplements 4 and 19 to the Safety Evaluation Report. The staff's environmental assessment was published on April 18, 1985 (50 FR 15516). Therefore, pursuant to 10 CFR 50.12(a)(1) and 50.12(a)(2)(ii) and (iii), the facility is exempt from the cited requirement and, instead, is required to perform the overall air lock leak test at pressure P_a before establishing containment integrity if air lock maintenance has been performed that could affect the air lock sealing capability. This schedular exemption expires at startup from the first refueling outage.~~

DELETE

(2) The facility was previously granted an exemption from the criticality monitoring requirements of 10 CFR 70.24 (see Special Nuclear Material License No. SNM-1861 dated September 5, 1979). The technical justification is contained in Section 9.1 of Supplement 5 to the Safety Evaluation Report, and the staff's environmental assessment was published on April 18, 1985 (50 FR 15516). The facilty is hereby exempted from the criticality alarm system provisions of 10 CFR 70.24 so far as this section applies to the storage of fuel assemblies held under this license.

(3) The facility requires an exemption from 10 CFR 73.55(c)(10). The justification for this exemption is contained in Section 13.6.9 of Supplement 15 and 20 to the Safety Evaluation Report. The staff's environmental assessment was published on April 25, 1995 (60 FR 20291). Pursuant to 10 CFR 73.5, the facility is exempted from the stated implementation schedule of the surface vehicle bomb rule, and may implement the same as late as February 17, 1996.

(4) The facility was previously granted an exemption from certain requirements of 10 CFR 73.55(d)(5) relating to the returning of picture badges upon exit from the protected areas, such that individuals not employed by TVA who are authorized unescorted access into protected areas can take their badges offsite (see 59 FR 66061, December 22, 1994). The granting of this exemption is hereby affirmed.