DCS 014

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

April 15, 1985

Docket No. 50-390

Mr. H. G. Parris
Manager of Power
Tennessee Valley Authority
500A Chestnut Street, Tower II
Chattanooga, Tennessee 37401

Dear Mr. Parris:

Subject: Environmental Assessment

Enclosed for your information is a copy of the "Notice of Environmental Assessment and Finding of No Significant Impact" related to your December 3, 1984, and February 16, 1985, requests for exemptions from certain requirements for airlock leakage tests and for installation of a criticality monitor in the fuel storage area prior to placement of fuel in the area.

The Notice has been forwarded to the Office of the Federal Register for publication.

Sincerely,

Elinor G. Adensam

Elinor G. Adensam, Chief
Licensing Branch No. 4
Division of Licensing

Enclosure:
As stated

cc: See next page

DESIGNATED ORIGINAL

Certified By

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PDR ADOCK 05000390
A PDR

WATTS BAR

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UNITED STATES NUCLEAR REGULATORY COMMISSION

TENNESSEE VALLEY AUTHORITY

WATTS BAR NUCLEAR PLANT, UNIT 1

DOCKET NO. 50-390

NOTICE OF ENVIRONMENTAL ASSESSMENT

AND FINDING OF NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of partial exemptions from the requirements of Appendix J to 10 CFR Part 50 and Paragraph 70.24 to 10 CFR Part 70 to the Tennessee Valley Authority (the licensee) for the Watts Bar Nuclear Plant, Unit 1, located at the licensee's site in Rhea County, Tennessee.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Actions: The proposed actions would provide partial exemptions from certain Commission regulations. The first exemption would relieve the licensee from the requirement of conducting a full pressure airlock leakage test, pursuant to paragraph III.D.2(b)(ii) of Appendix J to 10 CFR Part 50, whenever airlocks are opened during periods when containment integrity is not required. Licensees would rely, instead, on the seal leakage test described in paragraph III.D.2(b)(iii) when the reactor is in cold shutdown (mode 5) or refueling (mode 6) and when no maintenance has been performed on the airlock. The second exemption would relieve the licensee, until irradiated fuel is placed into the fuel storage area, from the requirement to have a criticality monitor installed in the fuel storage area.

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The licensee's request for exemptions and the bases therefor, are contained in letters dated December 3, 1984, and February 16, 1985.

The Need for the Proposed Actions: As described in the staff's Safety Evaluation Report, Supplement 4, for the Watts Bar Nuclear Plant, performance of the leakage rate tests required by paragraph III.D.2(b)(ii) of 10 CFR Part 50, Appendix J, takes at least 6 hours per airlock. Exemption from type B leakage rate tests on airlocks opened during a period when containment integrity is not required and when no maintenance has been performed on the airlock would provide the licensee with greater plant availability over the lifetime of the plant.

The second exemption, as described in the licensee's February 16, 1985, submittal, would allow the licensee to delay installation and operation of a criticality monitor until irradiated fuel is placed into the fuel storage area. Because there is currently non-irradiated fuel on site, the licensee would be required to maintain a criticality monitor without the requested exemption. This would result in an unnecessary hardship without a compensating increase in the level of safety.

Environmental Impacts of Proposed Actions: The first proposed exemption would permit the substitution of an airlock seal leakage test (paragraph III.D.2(b)(iii) of Appendix J, 10 CFR Part 50) for the full pressure airlock test otherwise required by paragraph III.D.2(b)(ii) when the airlock is opened while the reactor is in a cold shutdown or refueling mode. If the tests required by III.D.2(b)(i) and (iii) are current, no maintenance having been performed on the airlock and with it properly sealed, this exemption will not affect containment integrity and does not affect the risk of facility accidents. Thus, post-accident radiological releases will not be greater than previously

determined nor does the proposed relief otherwise affect radiological plant effluents, nor result in any significant occupational exposure. Likewise, the relief does not affect non-radiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant radiological or non-radiological environmental impacts associated with the proposed exemption.

The second proposed exemption allows the licensee to have non-irradiated fuel in the fuel storage area without having a criticality alarm system. By letter dated September 5, 1979, the staff granted this exemption for the specified date of the Special Nuclear Materials (SNM) license. Since this license, and its exemptions, expires upon issuance of the operating license, the licensee has requested the exemption be incorporated into the Watts Bar Unit 1 operating license upon its issuance. The staff has determined that the bases supporting this exemption in the SNM license are applicable to the operating license. Therefore, this exemption will not affect containment integrity and does not affect the risk of facility accidents. Thus, post-accident releases will not be greater than previously determined, nor does the proposed relief otherwise affect radiological plant effluents, or result in any significant occupational exposure. Likewise, the relief does not affect non-radiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant radiological or non-radiological environmental impacts associated with the proposed exemption.

Alternative to the Proposed Actions: Because we have concluded that there is no measurable environmental impact associated with the proposed exemptions, any alternatives to the exemptions will have either no environmental impact or greater environmental impact.

The principal alternative would be to deny the requested exemptions. Such action would not reduce environmental impact of Watts Bar Unit 1 operations and would result in reduced operational flexibility and/or unwarranted delays in power ascension.

Alternative Use of Resources: These actions do not involve the use of resources not previously considered in connection with the "Final Environmental Statement Related to Operation of Watts Bar Nuclear Plant, Units 1 and 2," dated December 1978.

Agencies and Persons Consulted: The NRC staff reviewed the licensee's requests that support the proposed exemptions. The NRC staff did not consult other agencies or persons.

FINDING OF NO SIGNIFICANT IMPACT

Based upon the foregoing environmental assessment, we conclude that the proposed actions will not have a significant effect on the quality of the human environment. Accordingly, the Commission has determined not to prepare an environmental impact statement for the proposed exemptions.

For further details with respect to the actions, see the licensee's requests for the exemptions dated December 3, 1984, and February 16, 1985, which are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D. C., and at the Chattanooga-Hamilton County Bicentennial Library, 1001 Broad Street, Chattanooga, Tennessee 37401.

Dated at Bethesda, Maryland, this 12th day of April 1985.

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas M. Novak, Assistant Director
for Licensing
Division of Licensing