April 15, 1993

Docket No. 50-328

Tennessee Valley Authority
ATTN: Dr. Mark O. Medford, Vice President
Nuclear Assurance, Licensing & Fuels
3B Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Dear Dr. Medford:

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT FOR AN EXEMPTION FROM APPENDIX J TO 10 CFR PART 50 - SEQUOYAH NUCLEAR PLANT, UNIT 2 (TAC NO. M85310)

Enclosed is the "Environmental Assessment and Finding of No Significant Impact" related to your request for an exemption from the accelerated testing frequency requirements of Section III.A.6(b) to Appendix J of 10 CFR Part 50 for the Sequoyah Nuclear Plant, Unit 2. The request was submitted by letter dated January 7, 1993, and pertains to the requirements in Appendix J for an accelerated test frequency for Type A testing if two consecutive Type A tests fail to meet the acceptance criteria. You have indicated that the exemption is needed to support the Unit 2 Cycle 6 refueling outage. The environmental assessment has been forwarded to the Office of the Federal Register for publication.

Sincerely,

Original signed by

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

Enclosure:
Environmental Assessment

cc w/enclosure
See next page

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UNITED STATES NUCLEAR REGULATORY COMMISSION

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-328

ENVIRONMENTAL ASSESSMENT AND

FINDING OF NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an exemption from the requirements of Section III.A.6(b) of Appendix J to 10 CFR Part 50 to the Tennessee Valley Authority, licensee for the Sequoyah Nuclear Plant, Unit 2. The plant is located at the licensee's site in Hamilton County, Tennessee. The exemption was requested by the licensee in its letter dated January 7, 1993.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action:

The action would exempt the licensee from the provisions in Section III.A.6(b) of Appendix J with respect to the requirement to accelerate the Type A test frequency if there have been two consecutive failures of Appendix J containment Type A tests. If two consecutive Type A tests fail to meet the acceptance criteria of 0.75 La, a Type A test shall be performed at each refueling outage until two consecutive Type A tests meet the acceptance criteria. Thereafter, the test frequency in Section III.D of Appendix J, which requires performing three Type A tests at approximately equal intervals during each 10-year service period, may resume. The relief would relax the

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acceleration of the Type A test frequency and the requirement to perform a Type A test during the Unit 2 Cycle 6 refueling outage scheduled for fall of 1993. If this exemption is granted, the next scheduled Type A test would be performed during the Cycle 7 refueling outage currently scheduled for April 1995. The applicable acceptance criteria for Sequoyah, pursuant to 10 CFR 50, Appendix J, Section III.A.5.(b)(2) is 0.75 times the allowable leakage (La), which results in a limit of 0.1875 percent-per-day.

At Unit 2, the licensee conducted Type A tests during the preoperational testing in 1981, and refueling outages in November 1984 (Cycle 2), March 1989 (Cycle 3), and April 1992 (Cycle 5). The cause of the Cycle 2 and Cycle 3 Type A leak tests exceeding the acceptance criteria of 0.75 La was packing leakage from two outboard root valves on two containment pressure sensing lines. By letter dated August 27, 1990, the staff granted an exemption to the licensee that relieved it of the obligation to perform a test during Cycle 4.

As a result of the Type A test performed during the Cycle 5 refueling outage, the measured leakage rate was again found to exceed the acceptance criteria of 0.75 La. This failure resulted when the leakage from the local leak rate test of valve 2-FCV-61-191 (which is attached to glycol Penetration X-47A) was added into the result of the Type A test that was performed during the outage. The leakage was caused by a small nut that was found under the valve stem nut on the outboard valve, which prevented the valve from going fully closed. (The nut was from unrelated work in the vicinity of the valve). Following removal of the loose nut, lubrication of the valve stem, and cycling of the valve several times, the local leak test was re-performed. No measured leakage was found. It could not be determined which action, removal of the

foreign material that prevented full valve closure or sticking of the valve stem (or both), corrected the problem. Corrective measures that have been adopted to prevent recurrence of the problems include a monthly inspection of the glycol valves for foreign material and monthly lubrication of the valve stems.

The history of the Type A tests conducted at Unit 2 is as follows:

Type A Tests Performed	As-found Leak Rate (% per day)	0.75La Limit (% per day)	1.0La Limit (% per day)	Status
Preop Test	0.14	0.1875	0.25	pass
Cycle 2 (1984)	0.22	0.1875	0.25	fail
Cycle 3 (1989)	0.22	0.1875	0.25	fail
Cycle 5 (1992)	0.42	0.1875	0.25	fail

The Need for the Proposed Action:

The proposed action is required to exempt the licensee from the requirement to conduct a Type A test of its Unit 2 containment in the Unit 2 Cycle 6 refueling outage scheduled to start in September 1993.

Environmental Impacts of the Proposed Action:

With respect to the requested action, exemption from the above requirement would allow the licensee to avoid conducting an unnecessary Type A test at Unit 2 in the upcoming Unit 2 Cycle 6 refueling outage. The test is not needed to assure the integrity of the containment during an accident, which is the purpose of the test. Consequently, neither the probability of accidents nor the radiological releases from accidents will be increased.

With regard to other potential radiological environmental impacts, the proposed exemption does not increase the radiological effluents from the facility and does not increase the occupational exposure at the facility. Therefore, the Commission concludes that there are no significant radiological impacts associated with the proposed exemption.

With regard to potential nonradiological environmental impacts, the proposed exemption involves systems located within the restricted areas as defined in 10 CFR Part 20. It does not affect nonradiological plant effluents and has no other significant nonradiological environmental impacts associated with the proposed exemption.

Therefore, the proposed exemption does not significantly change the conclusions in the licensee's "Final Environmental Statement Related to the Operation of Sequoyah Nuclear Plant Units 1 and 2," (FES) dated February 21, 1974. The Commission concluded that operation of the Sequoyah units will not result in any environmental impacts other than those evaluated in the FES and its letter to the licensee dated September 15, 1981, which granted the facility operating license DPR-79 for Unit 2.

Alternative to the Proposed Action:

Because the staff has concluded that there is no measurable environmental impact associated with the proposed exemption, any alternative to this exemption will have either no significantly different environmental impact or greater environmental impact.

The principal alternative would be to deny the requested exemption. This would not reduce environmental impacts as a result of plant operations.

Alternative Use of Resources:

This action does not involve the use of resources not previously considered in connection with the "Final Environmental Statement Related to the Operation of the Sequoyah Nuclear Plant, Units 1 and 2," dated February 21, 1974.

Agencies and Persons Consulted:

The NRC staff has reviewed the licensee's request. The staff did not consult other agencies or persons.

FINDING OF NO SIGNIFICANT IMPACT:

The Commission has determined not to prepare an environmental impact statement for the proposed exemption.

Based upon the foregoing environmental assessment, we conclude that the proposed action will not have a significant effect on the quality of the human environment.

For details with respect to this action, see the licensee's request for an exemption dated January 7, 1993, which is available for public inspection at the Commission's Public Document Room, Gelman Building, 2120 L Street, N.W., Washington, D.C., and at the Chattanooga-Hamilton County Library, 1101 Broad Street, Chattanooga, Tennessee 37402.

Dated at Rockville, Maryland, this 15th day of April 1993.

FOR THE NUCLEAR REGULATORY COMMISSION

Frederick J. Hebdon

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

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