7590-01

UNITED STATES NUCLEAR REGULATORY COMMISSION

TENNESSEE VALLEY AUTHORITY

SEQUOYAH NUCLEAR PLANT, UNIT 2

DOCKET NO. 50-328

ENVIRONMENTAL ASSESSMENT AND

FINDING OF NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of a one-time schedular exemption from the requirements of Sections III.D.2(a) and III.D.3 of Appendix J to 10 CFR Part 50 to the Tennessee Valley Authority, licensee for the Sequoyah Nuclear Plant (SQN), 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 February 4, 1994.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action:

The action would exempt the licensee from the provisions in Sections III.D.2(a) and III.D.3 of Appendix J to 10 CFR Part 50 with respect to the requirement to perform Primary Containment Type B and Type C local leak rate tests at intervals no greater than 2 years. The exemption would affect Unit 2 only and allow the tests to be delayed until the Cycle 6 refueling outage. This outage is scheduled to start approximately 4 months after the 2-year period ends.

Between March and April 1992, all Type B and Type C local leak rate tests were performed during the SQN Unit 2 Cycle 5 refueling outage. Between March 1, 1993, and October 19, 1993, Unit 2 was shut down due to a steam leak

in the secondary system, and experienced several forced shutdowns since it was restarted. Due to the accumulated length of the shutdowns, TVA has decided to delay start of the Unit 2 Cycle 6 refueling outage until July 1994. As a result, the expiration of the 2-year time interval for the Type B and Type C tests occurs before the outage starts. Therefore, to perform the tests in accordance with the requirement would force the unit to shut down in April 1994. To prevent this, the proposed exemption would allow a one-time deferment of the Appendix J interval requirement from March 1994 until the shutdown in July 1994. The result would an interval of approximately 4 months since the previous test for any component.

This environmental assessment is similar to an environmental assessment processed by the Commission and forwarded by letter dated November 9, 1993. It was published in the Federal Register on November 16, 1993 (58 FR 60470). This action addressed the 10 CFR 50 Appendix J exemption for the Unit 2 refueling outage when it was scheduled to begin in April 1994.

The Need for the Proposed Action:

The proposed action is required to exempt the licensee from the requirement to conduct Type B and Type C containment local leak rate tests on SQN Unit 2 at a 2-year frequency so that the tests can be performed during the Cycle 6 refueling outage that is scheduled to start in July 1994.

Environmental Impacts of the Proposed Action:

With respect to the requested action, exemption from the above requirement would allow the licensee to delay conducting Type B and Type C local leak rate tests at Unit 2 approximately 4 months beyond the scheduled expiration date of the 2-year period. This relatively small increase in the

test interval does not significantly contribute to the total Type B and Type C leakage limits.

The intent of Sections III.D.2(a) and III.D.3 of Appendix J is to ensure that containment leakage is maintained within the prescribed limits. Based on the following information, the exemption will not significantly affect the ability of the individual primary containment components that are subject to Type B or Type C tests to perform this safety function:

1. The valves and components for which the extension of the 2-year interval is being requested have a history of being leak tight and in good condition. The leak-tight condition of these components was last verified by Types B and C local leak rate tests conducted during the Cycle 5 refueling outage in 1992 and, at least for many, by the Type A containment leak rate test conducted on Unit 2 during the same refueling outage. Based on the present containment leakage that accounts for the less than 8.0 percent of the 0.6 percent La limit, the remaining margin is sufficient to ensure any incremental increase in leakage resulting from the extension would not cause unacceptable as-found test results.

2. Based on historical data, any incremental increase in leakage because of the extension will be small. Improved maintenance practices implemented during the Unit 2 Cycle 5 outage, including motor operated valve testing of containment isolation valves, periodic replacement of valve packing, and periodic lubrication of valve stems, provide increased assurance that these components will perform their safety function.

3. Many of the components for which the exemption is requested were included in the Type A test performed in April 1992. This test indicated a containment leak rate of 0.15 percent per day, which is below the 0.1875 percent per day limit.

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 February 4, 1994, 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 7th day of March 1994.

FOR THE NUCLEAR REGULATORY COMMISSION

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