

Distribution

<u>Docket File</u>	JDonohew
NRC PDR	OGC
Local PDR	JZwolinski
SN Rdg. File	EJordan
ADSP Reading	ACRS(10)
DCrutchfield	GPA/PA
BDLiaw	GPA/CA
RPierson	BWilson
SBlack	LWatson
MSimms	

Mr. Oliver D. Kingsley, Jr.
 Senior Vice President, Nuclear Power
 Tennessee Valley Authority
 6N 38A Lookout Place
 1101 Market Street
 Chattanooga, Tennessee 37402-2801

Dear Mr. Kingsley:

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT
 FOR TWO EXEMPTIONS FROM 10 CFR PART 50, APPENDIX J, SECTION III.D.1(a)
 (TAC 73090, 73091) - SEQUOYAH NUCLEAR PLANT, UNIT 1

Enclosed is a copy of an "Environmental Assessment and Finding of No Significant Impact" related to your requests dated May 1 and 5, 1989, for a temporary and a permanent exemption from Section III.D.1(a) of Appendix J to 10 CFR Part 50 for Sequoyah Nuclear Plant, Unit 1. This pertains to the requirements in Appendix J that (1) the set of three Type A, or containment integrated leak rate, tests shall be performed at approximately equal intervals during each 10-year service period and (2) the third test of each set shall be conducted when the unit is shut down for the 10-year unit inservice inspection (ISI).

In your two requests, you have requested exemptions for Unit 1 to (1) conduct the third test of the first 10-year service period during the Unit 1 Cycle 4 refueling outage and (2) separate the third test of each 10-year service period from the 10-year ISI. The first request is for a temporary exemption for only the upcoming test so that it may be conducted during the Unit 1 Cycle 4 refueling outage instead of during a special outage to conduct the test. The second request is for a permanent exemption so that the third test of each 10-year service period and the 10-year ISI can be scheduled separately.

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

Sincerely,

Suzanne Black, Assistant Director
 for Projects
 TVA Projects Division
 Office of Nuclear Reactor Regulation

DF01
fl

Enclosure:
 Environmental Assessment

cc w/enclosure:
 See next page

8910030242 890922
 PDR ADDCK 05000327
 P PDC

OFC	NRR:TVA/LA	NRR:TVA/PM	UGC	TVA:AD/P
NAME	MSimms <i>mes</i>	JDonohew <i>JD</i>	<i>SB</i>	SBlack <i>SB</i>
DATE	<i>8/30</i> 89	9/1/89	9/14/89	9/22/89

cc w/enclosure:

General Counsel
Tennessee Valley Authority
400 West Summit Hill Drive
ET 11B 33H
Knoxville, Tennessee 37902

Mr. F. L. Moreadith
Vice President, Nuclear Engineering
Tennessee Valley Authority
400 West Summit Hill Drive
WT 12A 12A
Knoxville, Tennessee 37902

Dr. Mark O. Medford
Vice President and Nuclear
Technical Director
Tennessee Valley Authority
6N 38A Lookout Place
Chattanooga, Tennessee 37402-2801

Manager, Nuclear Licensing
and Regulatory Affairs
Tennessee Valley Authority
5N 157B Lookout Place
Chattanooga, Tennessee 37402-2801

Mr. John L. LaPoint
Site Director
Sequoyah Nuclear Plant
Tennessee Valley Authority
P. O. Box 2000
Soddy Daisy, Tennessee 37379

Mr. M. Burzynski
Site Licensing Manager
Sequoyah Nuclear Plant
P. O. Box 2000
Soddy Daisy, Tennessee 37379

County Judge
Hamilton County Courthouse
Chattanooga, Tennessee 37402

Regional Administrator, Region II
U.S. Nuclear Regulatory Commission
101 Marietta Street, N.W.
Atlanta, Georgia 30323

Mr. Kenneth M. Jenison
Senior Resident Inspector
Sequoyah Nuclear Plant
U.S. Nuclear Regulatory Commission
2600 Igou Ferry Road
Soddy Daisy, Tennessee 37379

Mr. Michael H. Mobley, Director
Division of Radiological Health
T.E.R.R.A. Building, 6th Floor
150 9th Avenue North
Nashville, Tennessee 37219-5404

Dr. Henry Myers, Science Advisor
Committee on Interior
and Insular Affairs
U.S. House of Representatives
Washington, D.C. 20515

Tennessee Valley Authority
Rockville Office
11921 Rockville Pike
Suite 402
Rockville, Maryland 20852

UNITED STATES NUCLEAR REGULATORY COMMISSIONTENNESSEE VALLEY AUTHORITYSEQUOYAH NUCLEAR PLANT, UNIT 1DOCKET NO. 50-327ENVIRONMENTAL ASSESSMENT ANDFINDING OF NO SIGNIFICANT IMPACT

The U. S. Nuclear Regulatory Commission (the Commission) is considering issuance of two exemptions, one temporary and one permanent, from the requirements of Section III.D.1(a) of Appendix J to 10 CFR Part 50 to the Tennessee Valley Authority (the licensee) for the Sequoyah Nuclear Plant, Unit 1. The unit is located at the licensee's site in Hamilton County, Tennessee. The temporary and permanent exemptions were requested by the licensee in its letters dated May 1 and 5, 1989, respectively.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action: The temporary and permanent exemptions would allow the licensee relief from the provisions of Section III.D.1(a) of Appendix J that require that (1) the set of three Type A, or containment integrated leak rate, tests shall be performed at approximately equal intervals during each 10-year service period and (2) the third test of each set shall be conducted when the unit is shutdown for the 10-year unit inservice inspection (ISI). In the two requests, the licensee has requested temporary and permanent

exemptions for Unit 1 to (1) conduct the third test of the first 10-year service period during the Unit 1 Cycle 4 refueling outage and (2) separate the third test of each 10-year service period from the 10-year ISI. The first request is for a temporary exemption for only the upcoming test so that it may be conducted during the Unit 1 Cycle 4 refueling outage instead of during a special outage to conduct the test. The second request is for a permanent exemption so that the third test of each 10-year service period and the 10-year ISI can be scheduled separately.

For the temporary exemption, Appendix J to 10 CFR Part 50 requires that a set of three tests shall be performed at approximately equal intervals during each 10-year service period. The NRC staff has determined that the "approximately equal interval" is 40 ± 10 months. The licensee is requesting a temporary exemption to allow the third test for Unit 1 in its first 10-year service period to be conducted at an interval greater than 50 months from the second test. The additional interval while the unit is operating until it shuts down for its Cycle 4 refueling outage is no more than three months.

The measured overall leak rate for the first test for Unit 1 was 0.09429 percent per day. Unit 1 entered its Cycle 3 refueling outage on August 22, 1985, and the second test of the first 10-year service period was conducted on December 15, 1985. The measured overall leak rate for the second test was 0.05388 percent per day. Both the first test and the second test were significantly less than the maximum allowable leak rate of 0.25 percent per day for Unit 1.

Unit 1 was in an extended shutdown from August 22, 1985 until its restart in November 1988. In this shutdown, TVA stated that no modifications were made

on the containment boundary. In addition, the local leak tests on all penetration and valves requiring Appendix J Type B and Type C testing were acceptably completed. The surfaces of the containment liner and shield building were inspected for abnormal degradation before the restart of Unit 1 and none was observed. The leak rate for the test in December 1985 should not degrade beyond the maximum allowed leak rate in the not more than three months of additional plant operation beyond the 50 months allowed, before the shut down of Unit 1 to conduct the third test.

For the permanent exemption, Appendix J to 10 CFR Part 50 requires that the third test of each 10-year service period shall be conducted when the unit is shut down for the 10-year ISI. The licensee is requesting an exemption to permanently decouple the third test from the 10-year ISI. The third test for Unit 1 for the first 10-year service period is scheduled for the Unit 1 Cycle 4 refueling outage for the unit. The 10-year ISI is not related to the integrity of the containment pressure boundary and is currently scheduled in accordance with Section XI of the American Society of Mechanical Engineers (ASME) Code and with 10 CFR 50.55a(g)(4) for 1994. The first 10-year ISI for Unit 1 is, therefore, scheduled for a future refueling outage other than the Unit 1 Cycle 4 refueling outage. Each future 10-year ISI will, therefore, be scheduled for a different outage than the outage for the third test of any 10-year service period.

The Need for the Proposed Action: The proposed temporary and permanent exemptions are required to permit the licensee to (1) conduct the third test for Unit 1 during a scheduled Unit 1 refueling outage instead of during a forced

outage and (2) uncouple the third test during a 10-year service period from the 10-year ISI.

Environmental Impacts of the Proposed Action: With respect to the requested temporary and permanent exemptions, the relief from the above requirements of Appendix J would permit the licensee to conduct the third test in the Unit 1 Cycle 4 refueling outage. With regard to potential radiological environmental impacts, the proposed temporary and permanent exemptions would not allow the licensee to operate Unit 1 longer than allowed by the operating license for the unit. Neither the probability of accidents nor the radiological releases from accidents will be increased. The proposed temporary and permanent exemptions do not increase the radiological effluents from the facility and do not increase the occupational exposure at the facility. Therefore, the Commission concludes that there are no significant radiological impacts associated with the proposed temporary and permanent exemptions.

With regard to potential nonradiological environmental impacts, the proposed temporary and permanent exemptions involve systems located within the restricted areas as defined in 10 CFR Part 20. They do not affect nonradiological plant effluents and have no other environmental impact. Therefore, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed temporary and permanent exemptions.

Therefore, the proposed temporary and permanent exemptions do 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 in its letter to the licensee dated September 17, 1980 which granted the Facility Operating License DPR-77 for Unit 1.

Alternative to the Proposed Action: Because the staff has concluded that there is no measurable environmental impact associated with the proposed temporary and permanent exemptions, any alternative to these exemptions will have either no significantly different environmental impact or greater environmental impact.

The principal alternative would be to deny the requested temporary and permanent exemptions. This would not reduce environmental impacts as a result of Unit 1 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 requests that support the proposed temporary and permanent exemptions. The NRC 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 temporary and permanent exemptions.

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 the two exemptions dated May 1 and 5, 1989, 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
Bicentennial Library, 1001 Broad Street, Chattanooga, Tennessee 37402.

Dated at Rockville, Maryland, this 22nd day of September 1989.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in cursive script that reads "Suzanne Black".

Suzanne Black, Assistant Director
for Projects
TVA Projects Division
Office of Nuclear Reactor Regulation