UNITED STATES NUCLEAR REGULATORY COMMISSION

TENNESSEE VALLEY AUTHORITY

DOCKET NOS. 50-327 AND 50-328

NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE AND PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION AND OPPORTUNITY FOR HEARING

The U. S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating Licenses Nos. DPR-77 and DPR-79, issued to Tennessee Valley Authority (TVA or the licensee), for operation of the Sequoyah Nuclear Plants, Units 1 and 2, located in Hamilton County, Tennessee.

The Tennessee Valley Authority proposes to modify the Sequoyah (SQN) Units 1 and 2 Technical Specifications (TS). This is TS change 88-21 in the TVA submittal dated June 20, 1988. The proposed changes would revise the limiting condition for operation (LCO) 3.7.5 to increase the maximum allowable ultimate heat sink (UHS) temperature from 83 degrees Fahrenheit (F) to 84.5 degrees F and add a minimum water-level requirement. The wording of LCO 3.7.5 and surveillance requirement (SR) 4.7.5 would be modified to clearly specify that the UHS temperature limit applies to the essential raw cooling water (ERCW) supply water temperature. The action statement and surveillance requirements would also be modified to be consistent with the addition of an LCO for reservoir level. The bases for TS 3.7.5 would be modified to reflect these changes.

In its submittal, TVA provided the following information on its proposed TS change:

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The Tennessee River watershed is currently experiencing an extended drought. The lack of rainfall has significantly decreased the upstream cold water reservoir volumes. This results in decreased river flowrates and increased river temperatures at the site.

Current projects indicate that a maximum river temperature of 84.4 degrees F may be reached this summer at the site. The Chickamauga Dam, located downstream of SQN, forms a reservoir at the site. Therefore, if the temperature of the Tennessee River exceeds 83 degrees F, LCO 3.7.5 would require a forced unit shutdown.

TVA has evaluated the effects of increasing the maximum UHS temperature above 83 degrees F. This evaluation has determined that increasing the maximum UHS temperature to 84.5 degrees F is acceptable.

The mimimum water-level requirement is added to the technical specification in order to support flow balance test changes that take credit for the dynamics of reservoir drawdown after an assumed loss of downstream dam coincident with a loss of coolant accident (LOCA).

Before issuance of the proposed license amendment, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

The Commission has made a proposed determination that the amendment request involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. The basis for this proposed determination is provided by the licensee in its submittal and is given below.

TVA has evaluated the proposed technical specification change and has determined that it does not represent a significant hazards consideration based on criteria established in 10 CFR 50.92(c). Operation of SQN in accordance with the proposed amendment will not:

(1) involve a significant increase in the probability or consequences of an accident previously evaluated.

The function of ERCW as described in FSAR [Sequoyah Final Safety Analysis Report] Section 9.2.2 and the function of the UHS as described in FSAR Section 9.2.5 remain unchanged. The UHS temperature is not assumed to be an initiating cause for FSAR evaluation events. As such, increasing the UHS temperature will not affect the probability of any previously evaluated accidents. The increase in the maximum UHS temperature was found to be acceptable by evaluating the impacts on various systems, components, and analyses. The following were evaluated:

ECCS [emergency core cooling systems]
Other FSAR Chapter 15 accident analyses
Containment subcompartment pressure analysis (FSAR Section 6.2)
Peak containment temperature
Peak containment pressure
Long-term containment cooling
Long-term cooling for pipe breaks outside containment
EQ [Environmental Qualification] temperature profiles

The increase in UHS temperature was found to impact the peak containment pressure analysis and long-term cooling for pipe breaks inside and outside of containment. These impacts, however, are neither significant nor detrimental to the plant for the proposed increase in the UHS temperature limit from 83 degrees F to 84.5 degrees F. Therefore, the consequences of a previously evaluated accident are not significantly increased.

The addition of a minimum UHS reservoir level requirement ensures that plant operation is bounded by the analysis that established ERCW flow rates to the major transient heat load components. The establishment of flows based on time-dependent heat loads merely provides more operational margin without being overly conservative. As such, the proposed specification addition does not increase the probability or consequences of a previously evaluated accident.

The wording changes to Specification 3/4.7.5 are administrative in nature and are made for consistency and clarification. The revisions to the action statement and the SR are made for consistency with the new requirement for UHS reservoir level. The additional wording change is made to clearly specify that the UHS temperature limit applies to the ERCW supply water temperature. The change does not affect the probability or consequences of a previously evaluated accident.

(2) create the possibility of a new or different kind of accident from any previously analyzed.

The proposed increase in the maximum allowable UHS temperature is made to accommodate elevated river temperature at the SQN site. These elevated river temperatures are the result of an extended drought in the Tennessee River watershed. The performamce of the UHS and ERCW has been analyzed and found to be acceptable at the increased maximum temperature. Because the UHS and ERCW still perform their intended function and these functions remain unchanged, the probability of a new or different kind of accident from any previously analyzed is not created.

The addition of a mimumum UHS reservoir level ensures that plant operation is bounded by analyses performed to establish ERCW flow rates to transient heat load equipment. Adequate performance of the heat exchangers is ensured. The addition of the specification will not create the possibility of a new or different accident.

The wording changes to Specification 3/4.7.5 are administrative in nature and are made for consistency and clarification. The revisions to the action statement and the SR are made for consistency with the new requirement for UHS reservoir level. The additional wording change is made to clearly specify that the UHS temperature limit applies to the ERCW supply water temperature. As such, the proposed change will not create the possibility of a new or different accident.

(3) involve a significant reduction in a margin of safety.

The proposed increase in the UHS maximum temperature has only minor impacts on the peak containment pressure analysis and long-term cooling for pipe breaks outside containment. The peak containment pressure increases by approximately 0.14 $lb/in^2$[psi]g and remains below the containment design pressure of 12 $lb/in^2$[psi]g. The ESF room cooler performance remains acceptable and maintains the 100-day average room temperature below EQ limits. As such, the increase in the UHS temperature limit does not significantly reduce the margin of safety.

The addition of a minimum UHS reservoir level ensures that the ERCW flow rates to the CCS and CS heat exchangers meet or exceed the values assumed in the peak containment pressure analysis as performed for this change. This establishes a level of operational margin for performance of the heat exchangers. The margin of safety is not significantly reduced by the proposed change.

The wording changes to Specification 3/4.7.5 are administrative in nature and are made for consistency and clarification. The revisions to the action statement and the SR are made for consistency with the new requirement for UHS reservoir level. The additional wording change is made to clearly specify that the UHS temperature limit applies to the ERCW supply water temperature. The proposed change does not reduce the margin of safety.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination. The Commission will not normally make a final determination unless it receives a request for a hearing.

Written comments may be submitted by mail to the Rules and Procedures Branch, Division of Rules and Records, Office of Administration and Resources Management, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and should cite the publication date and page number of the FEDERAL REGISTER notice. Written comments may also be delivered to Room 4000, Maryland National Bank Building, 7735 Old Georgetown Road, Bethesda, Maryland, from 8:15 a.m. to 5:00 p.m. Copies of written comments received may be examined at the NRC Public Document Room, 1717 H Street, NW, Washington, DC. The filing of requests for hearing and petitions for leave to intervene is discussed below.

By August 1, 1988 , the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written petition for leave to intervene. Requests for a hearing and petitions for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceeding" in 10 CFR Part 2. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel,

will rule on the request and/or petition and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR Section 2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to fifteen (15) days prior to the first pre-hearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter, and the bases for each contention set forth with reasonable specificity. Contentions shall be limited to matters

within the scope of the amendment under consideration. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held.

If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

If the final determination is that the amendment request involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

Normally, the Commission will not issue the amendment until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result, for example, in derating or shutdown of the facility, the Commission may issue the license amendment before the expiration of the 30-day notice period, provided that its final determination is that the amendment involves no significant hazards consideration. The final determination will consider all public and State comments received. Should the Commission take this

action, it will publish a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Docketing and Service Branch, or may be delivered to the Commission's Public Document Room, 1717 H Street, N.W. Washington, D.C., by the above date. Where petitions are filed during the last ten (10) days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union at 1(800) 325-6000 (in Missouri 1(800)342-6700). The Western Union operator should be given Datagram Identification Number 3737 and the following message addressed to Suzanne C. Black: petitioner's name and telephone number; date petition was mailed; plant name; and publication date and page number of this FEDERAL REGISTER notice. A copy of the petition should also be sent to the Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and to General Counsel, Tennessee Valley Authority, 400 West Summit Hill Drive, E11 B33, Knoxville, Tennessee 37902, attorney for the licensee.

Nontimely filings for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the Atomic Safety and Licensing Board designated to rule on the petition and/or requests, that the petitioner has made a substantial showing of good cause for the granting of a late petition and/or request. That determination will be based upon a balancing of the factors specified in 10 CFR 2.714(a)(i)-(v) and 2.714(d).

For further details with respect to this action, see the application for amendment dated June 20, 1988, which is available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C, 20555, and at the Local Public Document Room located at the Chattanooga-Hamilton County Library, 1001 Broad Street, Chattanooga, Tennessee 37402.

Dated at Rockville, Maryland this 24th day of June 1988.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed by David H. Moran

David H. Moran, Acting Assistant Director
for Projects
TVA Projects Division
Office of Special Projects

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