

January 24, 1990

Docket Nos. 50-327  
and 50-328

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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: NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT FOR TECHNICAL SPECIFICATION CHANGE 90-05 (TAC 75753, 75754) - SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2

Enclosed is a copy of the "Notice of Consideration of Issuance of Amendment" related to your January 12, 1990 request to modify the requirements on the containment ice condenser in the Sequoyah Nuclear Plant, Units 1 and 2, Technical Specifications. By February 23, 1990 any person whose interest may be affected by the proposed amendments may file a request for a hearing on the issuance of the amendments. The Notice has been forwarded to the Office of the Federal Register for publication.

Sincerely,

Original signed by

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

Enclosure:  
As Stated

cc w/enclosure:  
See next page

OFC	:NRR:VA/PM	:TVA:AD/P	:	:	:	:
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UNITED STATES NUCLEAR REGULATORY COMMISSIONTENNESSEE VALLEY AUTHORITYDOCKET NOS. 50-327 AND 50-328NOTICE 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 amendments to Facility Operating License Nos. DPR-77 and DPR-79, issued to the Tennessee Valley Authority (TVA or the licensee), for the operation of the Sequoyah Nuclear Plant, Units 1 and 2, located in Hamilton County, Tennessee.

The proposed amendment would modify the requirements on the containment ice condenser in the Sequoyah (SQN) Technical Specifications (TSs). One proposed change would revise Surveillance Requirement (SR) 4.6.5.1.b.2 to extend the 12-month ice weighing interval to 18 months. An associated 12-month SR for ice condenser lower inlet doors (SR 4.6.5.3.1.b) would be extended to coincide with the proposed 18-month interval for weighing ice and to increase the sample size from 25 percent to 100 percent. Additionally, TVA is also proposing to lower the minimum ice basket weight from 1,200 pounds (1b) to 1,155 lb, thus lowering the overall ice condenser weight from 2,333,100 lb to 2,245,320 lb. A one-time TS provision contained in a footnote on each unit is no longer applicable and would also be deleted. Text changes would be made to SRs 4.6.5.1.b, 4.6.5.3.1.b, and 4.6.5.3.2.b to delete requirements regarding

test milestones that were previously completed during the first two years of Sequoyah operation and are thereby no longer applicable.

To support its proposed changes, TVA provided the following information in its submittal:

TVA is requesting an extension of SRs 4.6.5.1.b.2 and 4.6.5.3.1.b to extend weighing of ice and testing of ice condenser lower inlet doors to be coincident with refueling outages. This extension would provide increased plant availability and would allow for more efficient use of manpower. Revised design basis analyses performed by Westinghouse Electric Corporation, using staff-approved modeling enhancements, have shown that the amount of ice required for accident mitigation may be reduced without decreasing safety margins. TVA proposes to incorporate the results of the Westinghouse analyses into the plant design basis.

To preclude a Unit 2 ice weighting outage currently scheduled for March 5, 1990, TVA has requested that NRC act on TVA's proposed changes to the TSs by March 1, 1990. Before issuance of the proposed amendments, 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 amendments would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; (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. 10 CFR 50.91 requires that at the time a licensee requests an amendment, it must provide to the Commission its analyses, using the standards in Section 50.92, on the issue of no significant hazards consideration. Therefore, in accordance with 10 CFR 50.91 and 10 CFR 50.92, the licensee has performed and provided the following analysis:

TVA has evaluated the proposed TS 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[s] will not:

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

TVA proposes to modify the SQN Unit 1 and Unit 2 TSs to revise SR 4.6.5.1.b.2 to allow extension of the 12-month ice-weighing interval to 18 months. TVA is requesting an extension to allow the ice weighing to be conducted coincident with the refueling outages. An associated 12-month SR for ice condenser lower inlet doors (SR 4.6.5.3.1.b) is also being extended to coincide with the 18-month interval for weighing ice.

The ice condenser system is provided to absorb thermal energy release following a LOCA [loss-of-coolant accident] or high energy line break (HELB) and to limit the peak pressure inside containment. The current containment analysis for SQN is based on a minimum of 1,080 lb of ice per basket evenly distributed throughout the ice condenser. The revised containment analysis shows that for the predicted sublimation rate of 15 percent for 18 months, an average basket weight of 993 lb at the end of the 18-month period would ensure containment design pressure is not exceeded.

Based on TVA's evaluation and the revised containment analysis, TVA considers the reduction of ice weight to be acceptable for satisfying the safety function of the ice condenser for the proposed 18-month ice-weighing interval. Based on TVA's findings from the review of historical test data for lower inlet doors along with the expansion of the 25 percent test sample to include testing of all lower inlet doors for opening/closing torque, TVA considers the extended 18-month test interval to be acceptable for satisfying the safety function of these doors. TVA's proposed text change to SRs 4.6.5.1.b, 4.6.5.3.1.b, and 4.6.5.3.2.b is an administrative change that removes previously completed test milestones during the first two years of SQN operation. These requirements are no longer applicable and are being deleted for clarity and to avoid the possibility of confusion. The proposed change[s] therefore [do] not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

TVA's request for an 18-month ice-weighing interval will not result in a new or different kind of accident from that previously analyzed in SQN's Final Safety Analysis Report. SQN's ice condenser serves to limit the peak pressure inside containment following a LOCA. TVA has evaluated the revised containment pressure analysis for SQN and determined that sufficient ice would be present at all times to keep the peak containment pressure below SQN's containment design pressure of 12 pounds per square inch gage (psig).

TVA's request for an 18-month lower inlet door surveillance frequency will not result in a new or different kind of accident from that previously analyzed. Surveillance testing of the lower inlet doors continues to ensure the reactor coolant system fluid released during a LOCA will be diverted through the ice condenser bays for heat removal and that excessive sublimation of the ice bed will not occur because of warm air intrusion.

[The proposed changes, therefore, would not result in a new or different kind of accident from any previously analyzed].

TVA's proposed test change to SRs 4.6.5.1.b, 4.6.5.3.1.b, and 4.6.5.3.2.b is an administrative change that removes previously completed test milestones during the first two years of SQN operation. These requirements are no longer applicable and are being deleted for clarity and to avoid the possibility of confusion. This administrative change would not result in a new or different kind of accident from any previously analyzed.

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

The ice condenser system is provided to absorb thermal energy release following a LOCA and to limit the peak pressure inside containment. The current ice condenser analysis for SQN is based on a minimum of 1,080 lb of ice per basket. The revised containment analysis changes the minimum ice weight assumed in the analysis to 993 lb per basket.

The revised containment analysis shows that using an average basket weight of 1,155 lb and a sublimation allowance of 15 percent, all bays would have an average basket weight of 993 lb at the end of the 18-month interval.

The revised analysis utilizes new mass and energy releases (refer to Westinghouse WCAP-10325-P-A [in TVA's submittal]), which substantially delays ice-bed meltout and limits the initial containment peak pressure to approximately 7.15 psig during the blowdown phase. The ice-bed meltout delay allows the second containment pressure peak, which is driven mainly by the decay heat, to be limited to approximately 10.9 psig, which is below the containment design pressure of 12 psig.

Based on TVA's evaluation and the revised containment analysis, TVA considers the reduction of the average basket weight to be acceptable for satisfying the safety function of the ice condenser for the proposed 18-month interval. TVA's extension of the lower inlet door tests to coincide with the 18-month ice weight interval is considered to be acceptable based on the results of previous tests and TVA's change for expanding the 25 percent test sample to include a 100 percent sample. TVA's proposed text change to SRs 4.6.5.1.b, 4.6.5.3.1.b, and 4.6.5.3.2.b is an administrative change that removes previously completed test milestones during the first two years of SQN operation. These requirements are no longer applicable and are being deleted for clarity and to avoid the possibility of confusion. The proposed change[s], therefore, [do] not involve a significant reduction in the margin of safety.

The staff has reviewed the licensee's no significant hazards consideration determination and agrees with the licensee's analysis. Therefore, based on the above considerations, the Commission has made a proposed determination that the amendment request involves no significant hazards consideration.

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 Regulatory Publications Branch, Division of Freedom of Information and Publication Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and should cite the publication date and page number of this FEDERAL REGISTER notice. Written comments may also be delivered to Room P-223, Phillips Building, 7920 Norfolk Avenue, Bethesda, Maryland from 7:30 a.m. to 4:15 p.m. Copies of written comments received may be examined at the NRC Public Document Room, the Gelman Building, 2120 L Street, N.W., Washington, D.C. The filing of requests for hearing and petitions for leave to intervene is discussed below.

By February 23, 1990, the licensee may file a request for a hearing with respect to issuance of the amendments 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. Request for a hearing and petitions for leave to intervene shall be filed in accordance with the Commission's "Rules of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. Interested persons should consult a current copy of 10 CFR 2.714 which is available at the Commission's Public Document Room, the Gelman Building, 2120 L 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. 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 Panel, 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 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 the 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 prehearing 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, the 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. Each contention must consist of a

specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner shall provide a brief explanation of the bases of the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. Petitioner must provide sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendments under consideration. The contention must be one which, if proven, would entitle the petitioner to relief. 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 a final determination is that the request for amendment 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 request for amendment 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 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, the Gelman Building, 2120 L 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 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

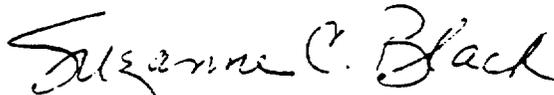
Commission, Washington, D. C. 20555, and to General Counsel, Tennessee Valley Authority, 400 West Summit Hill Drive, E11 B33, Knoxville, Tennessee 37902.

Nontimely filings of the petition 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)(1)(i)-(v) and 2.714(d).

For further details with respect to this action, see the TVA application for amendments dated January 12, 1990 (TS 90-05), which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L 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 18th day of January 1990.

FOR THE NUCLEAR REGULATORY COMMISSION



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

Commission, Washington, D. C. 20555, and to General Counsel, Tennessee Valley Authority, 400 West Summit Hill Drive, E11 B33, Knoxville, Tennessee 37902.

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Dated at Rockville, Maryland, this 18th day of January 1990.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by  
Suzanne C. Black, Assistant Director  
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