October 6, 1999

Mr. J. A. Scalice
Chief Nuclear Officer and
Executive Vice President
Tennessee Valley Authority
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

SUBJECT: SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS REGARDING FLOOD PROTECTION PLAN (TAC NOS. MA4896 AND MA4897) (TS 98-08)

Dear Mr. Scalice:

The Commission has issued the enclosed Amendment No. 247 to Facility Operating License No. DPR-77 and Amendment No. 238 to Facility Operating License No. DPR-79 for the Sequoyah Nuclear Plant (SQN), Units 1 and 2, respectively. These amendments are in response to your application dated February 26, 1999, which requested approval to remove Technical Specification (TS) 3.7.6, "Flood Protection Plan," and its associated Bases from the SQN TS for Units 1 and 2. This approval enables the Tennessee Valley Authority to relocate the TS 3.7.6 requirements to the SQN Technical Requirements Manual.

A copy of the Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's next biweekly Federal Register notice.

Sincerely,
Original signed by:

Ronald W. Hernan, Sr. Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-327 and 50-328

Enclosures: 1. Amendment No. 247 to License No. DPR-77
2. Amendment No. 238 to License No. DPR-79
3. Safety Evaluation

cc w/enclosures: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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cc w/enclosures: See next page

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-327

SEQUOYAH NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 247
License No. DPR-77

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Tennessee Valley Authority (the licensee) dated February 26, 1999, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-77 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 247 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance, to be implemented no later than 45 days after issuance, including issuance of the applicable Technical Requirements Manual section for use by licensee personnel.

FOR THE NUCLEAR REGULATORY COMMISSION

Sheri R. Peterson, Chief, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: October 6, 1999

ATTACHMENT TO LICENSE AMENDMENT NO. 247

FACILITY OPERATING LICENSE NO. DPR-77

DOCKET NO. 50-327

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE	INSERT
Index Page IX	Index Page IX
3/4 7-15	3/4 7-15
3/4 7-16	--
B 3/4 7-4	B 3/4 7-4

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

3/4.7.6 FLOOD PROTECTION

LIMITING CONDITIONS FOR OPERATION

3.7.6 This specification is deleted.

(Pages 3/4 7-15 and 3/4 7-16 are deleted)

3/4.7.5 ULTIMATE HEAT SINK (UHS)

The limitations on UHS water level and temperature ensure that sufficient cooling capacity is available to either 1) provide normal cooldown of the facility, or 2) to mitigate the effects of accident conditions within acceptable limits. R83

The limitations on the maximum temperature are based on providing a 30 day cooling water supply to safety related equipment without exceeding their design basis temperature and is consistent with the recommendations of Regulatory Guide 1.27, "Ultimate Heat Sink for Nuclear Plants", March 1974. R12

The limitations on minimum water level are based on providing sufficient flow to the ERCW serviced heat loads after a postulated event assuming a time-dependent drawdown of reservoir level. Flow to the major transient heat loads (CCS and CS heat exchangers) is balanced assuming a reservoir level of elevation 670. The time-independent heat loads (ESF room coolers, etc.) are balanced assuming a reservoir level of elevation 639. R83 BR-10

3/4.7.6 FLOOD PROTECTION

This specification is deleted.

3/4.7.7 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

The OPERABILITY of the control room ventilation system ensures that 1) the ambient air temperature does not exceed the allowable temperature for continuous duty rating for the equipment and instrumentation cooled by this system and 2) the control room will remain habitable for operations personnel during and following all credible accident conditions. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rem or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criteria 19 of Appendix "A", 10 CFR 50. ANSI N510-1975 will be used as a procedural guide for surveillance testing.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-328

SEQUOYAH NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 238
License No. DPR-79

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Tennessee Valley Authority (the licensee) dated February 26, 1999, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-79 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 238, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance, to be implemented no later than 45 days after issuance, including issuance of the applicable Technical Requirements Manual section for use by licensee personnel.

FOR THE NUCLEAR REGULATORY COMMISSION

Sheri R. Peterson

Sheri R. Peterson, Chief, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: October 6, 1999

ATTACHMENT TO LICENSE AMENDMENT NO. 238

FACILITY OPERATING LICENSE NO. DPR-79

DOCKET NO. 50-328

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

REMOVE	INSERT
Index Page IX	Index Page IX
3/4 7-15	3/4 7-15
3/4 7-16	--
B 3/4 7-4	B 3/4 7-4

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

3/4.7.6 FLOOD PROTECTION PLAN

LIMITING CONDITION FOR OPERATION

3.7.6 This specification is deleted.

(Pages 3/4 7-15 and 3/4 7-16 are deleted)

3/4.7.5 ULTIMATE HEAT SINK

The limitations on the ultimate heat sink water level and temperature ensure that sufficient cooling capacity is available to either 1) provide normal cooldown of the facility, or 2) to mitigate the effects of accident conditions within acceptable limits. R70

The limitation on maximum temperature is based on providing a 30 day cooling water supply to safety related equipment without exceeding their design basis temperature and is consistent with the recommendations of Regulatory Guide 1.27, "Ultimate Heat Sink for Nuclear Plants", March 1974.

The limitations on minimum water level are based on providing sufficient flow to the ERCW serviced heat loads after a postulated event assuming a time dependent drawdown of reservoir level. Flow to the major transient heat loads (CCS and CS heat exchangers) is balanced assuming a reservoir level of el. 670. The time independent heat loads (ESF room coolers, etc.) are balanced assuming a reservoir level of el. 639. R70 BR-11

3/4.7.6 FLOOD PROTECTION

This specification is deleted.

3/4.7.7 CONTROL ROOM EMERGENCY VENTILATION SYSTEM

The OPERABILITY of the control room ventilation system ensures that 1) the ambient air temperature does not exceed the allowable temperature for continuous duty rating for the equipment and instrumentation cooled by this system and 2) the control room will remain habitable for operations personnel during and following all credible accident conditions. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rem or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criteria 19 of Appendix "A", 10 CFR 50. ANSI N510-1975 will be used as a procedural guide for surveillance testing.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 247 TO FACILITY OPERATING LICENSE NO. DPR-77

AND AMENDMENT NO. 238 TO FACILITY OPERATING LICENSE NO. DPR-79

TENNESSEE VALLEY AUTHORITY

SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-327 AND 50-328

1.0 INTRODUCTION

By application dated February 26, 1999, the Tennessee Valley Authority (TVA, the licensee) proposed amendments to the Technical Specifications (TS) for Sequoyah Nuclear Plant (SQN) Units 1 and 2. The requested changes would relocate TS 3/4.7.6, "Flood Protection Plan," from the SQN TS to the SQN Technical Requirements Manual (TRM). In addition, the appropriate TS Bases sections and index pages would be revised to reflect this change.

2.0 BACKGROUND

SQN's Flood Protection Plan is designed to minimize impact of floods above plant grade on safety-related facilities. Currently, the SQN's TS provide the limiting conditions of operation (LCO) and surveillance requirements to verify the implementation of the Flood Protection Plan to minimize the consequences of floods. The TS also include an LCO for occurrence of a seismic event or recognizable seismic activity in the east Tennessee region. Procedures for predicting rainfall floods, arrangements to warn of upstream dam failure floods, and lead times available and types of action to be taken to meet related safety requirements for both sources of flooding are described therein.

TVA requests the proposed change to remove requirements associated with the Flood Protection from the SQN TS on the basis that they do not meet the criteria in Title 10, Code of Federal Regulations (10 CFR), Section 50.36. TVA's position is that the proposed change is consistent with the U.S. Nuclear Regulatory Commission's (NRC's) "Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors," published in the Federal Register on July 22, 1993 (58 FR 39132). The NRC Final Policy Statement states that TS requirements that do not meet any of the screening criteria for retention may be proposed for removal from the TS and relocated to licensee-controlled documents, such as the Final Safety Analysis Report or TRM. TVA's proposed change would allow revisions to the Flood Protection Plan, in accordance with 10 CFR 50.59, without requiring a license amendment request and adds flexibility to processing necessary changes.

3.0 EVALUATION

The Commission requires that LCOs meeting one or more of the four criteria stated in 10 CFR 50.56(c)(2)(ii) must be included in the plant's TS. The NRC staff has reviewed TVA's proposed TS change and concludes that it is consistent with the guidance in the Commission's Final Policy Statement on Technical Specifications, as discussed above, and with NUREG-1431, Revision 1, "Standard Technical Specifications, Westinghouse Plants," dated April 1995. NUREG-1431 does not include Flood Protection Plan TS requirements because this plan does not meet the criteria in 10 CFR 50.36. In addition, TVA evaluated SQN's current flood protection TS requirements against the criteria of 10 CFR 50.36. The following discussions address the applicability of the 10 CFR 50.36 criteria to SQN's TS for the Flood Protection Plan.

Criterion 1: Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.

SQN's Flood Protection Plan is designed to minimize the impact of floods above plant grade on safety-related facilities. Procedures for predicting rainfall floods, arrangements to warn of upstream-dam-failure floods, and lead times available and types of action to be taken to meet related safety requirements for both sources of flooding are features of the plan. SQN's Flood Protection Plan is not installed instrumentation that is used to detect and indicate, in the control room, a significant abnormal degradation of the reactor coolant pressure boundary. Accordingly, the SQN Flood Protection Plan does not satisfy Criterion 1.

Criterion 2: A process variable, design feature or operating restriction that is an initial condition of a Design Basis Accident (DBA) or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

SQN's Flood Protection Plan is not a process variable that is an initial condition of a DBA or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Therefore, the SQN Flood Protection Plan does not satisfy Criterion 2.

Criterion 3: A structure, system or component that is part of the primary success path and which functions or actuates to mitigate a DBA or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

SQN's Flood Protection Plan is not a structure, system or component that is part of the primary success path for accident mitigation. In addition, the Flood Protection Plan does not function or actuate to mitigate a DBA or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier. Accordingly, the Flood Protection Plan does not satisfy Criterion 3.

Criterion 4: A structure, system or component, which operating experience or probabilistic safety assessment has shown to be significant to public health and safety.

Operational experience and deterministic safety assessment evaluation as identified in the SQN Generic Letter 88-20 response have not shown the SQN Flood Protection Plan to be significant to the public health and safety. Therefore, the Flood Protection Plan does not satisfy Criterion 4.

The proposed relocation of the flood protection requirements to the SQN TRM is acceptable based on the above discussions. Therefore, the staff finds the amendments, as proposed by TVA to be acceptable. The relocated requirements will be controlled in accordance with those established for the TRM. These requirements include appropriate administrative controls and reviews and a 10 CFR 50.59 evaluation which will ensure changes are not implemented that would reduce the functionality of or introduce an unreviewed safety question to SQN's Flood Protection Plan.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Tennessee State official was notified of the proposed issuance of the amendments. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (64 FR 14286). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Richard J. Laufer, NRR

Dated: October 6, 1999

Mr. J. A. Scalice

Tennessee Valley Authority
SEQUOYAH NUCLEAR PLANT

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