

August 28, 1998

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: ISSUANCE OF TECHNICAL SPECIFICATION AMENDMENTS FOR THE
SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2 (TAC NOS. MA1317 AND
MA1318)(TS 97-04)

Dear Mr. Scalice:

The Commission has issued the enclosed Amendment No. 235 to Facility Operating License No. DPR-77 and Amendment No. 225 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 13, 1998. The amendments revise the SQN Technical Specifications (TS) by relocating the snubber requirements from Section 3.7.9 of the TS, and its bases, to the SQN Technical Requirements Manual. This change does not alter the requirements for operability or surveillance testing of the snubbers. This amendment also deletes License Condition 2.C.(19), for Unit 1 only. This condition is a one-time snubber-related action that was completed and no longer needs to be included in the SQN Operating License. The U.S. Nuclear Regulatory Commission staff has found the proposed changes to be acceptable.

A copy of the Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice. Please direct any questions you or your staff should have to me at 301-415-2010.

Sincerely,

Original signed by:

Ronald W. Hernan, Senior Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-327 and 50-328

Enclosures: 1. Amendment No. 235 to
License No. DPR-77
2. Amendment No. 225 to
License No. DPR-79
3. Safety Evaluation

Distribution (w/enclosure):

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SQN r/f

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L. Plisco, RII

J. Zwolinski (A)

ACRS

OGC

cc w/enclosures: See next page

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**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

WASHINGTON, D.C. 20555-0001

August 28, 1998

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Chief Nuclear Officer and
Executive Vice President
Tennessee Valley Authority
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Sincerely,

A handwritten signature in black ink, reading "Ronald W. Hernan", is written over a horizontal line.

Ronald W. Hernan, Senior Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-327 and 50-328

- Enclosures:
1. Amendment No. 235 to
License No. DPR-77
 2. Amendment No. 225 to
License No. DPR-79
 3. Safety Evaluation

cc w/enclosures: See next page

Mr. J. A. Scalice
Tennessee Valley Authority

cc:

Senior Vice President
Nuclear Operations
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6A Lookout Place
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SEQUOYAH NUCLEAR PLANT

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Senior Resident Inspector
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TN Dept. of Environment & Conservation
Division of Radiological Health
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County Executive
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Chattanooga, TN 37402-2801



**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. 235
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 13, 1998, 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.

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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. 235 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

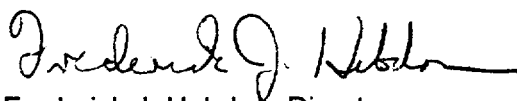
In addition, paragraph 2.C.(19) of Facility Operating License No. DPR-77 is hereby amended to read as follows: *

(19) Mechanical Snubbers

This condition is deleted

3. This license amendment is effective as of its date of issuance, to be implemented no later than 45 days after issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Frederick J. Hebdon, Director
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachments: 1. Page 8 of License
2. Changes to the Technical
Specifications

Date of Issuance: August 28, 1998

* Page 8 of the composite license is attached to reflect this change

(19) Mecchanical Snubbers

This condition is deleted.

(20) Low Temperature Overpressure Protection (Section 5.2.2)

At the first outage of sufficient duration but no later than startup following the second refueling outage, TVA shall install an overpressure mitigation system which meets NRC requirements.

R27

(21) Control Rod Guide Thimble (Section 4.2)

Prior to startup after first refueling, TVA shall submit the details of the inspection program for control rod guide thimble tube wall wear for NRC approval.

(22) TMI Action Plan Full Power Conditions

Each of the following conditions shall be completed to the satisfaction of the NRC by the times indicated:

A. Safety Engineering Group (Section 22.2.I.B.1.2)

Prior to exceeding five percent power, TVA is required to have an onsite Safety Engineering Group. NRC will verify the adequacy of the Safety Engineering Group and its independence.

B. Short-Term Accident Analysis and Procedure Revision (Section 22.2.I.C.1)

Within thirty effective full-power days, TVA shall revise Emergency Operating Procedures and brief the operators on the revision.

C. Control Room Design (Section 22.2.I.D.1)

TVA shall consider the benefits of installing data recording and logging equipment in the control room to correct the deficiencies associated with the trending of important parameters on strip chart recorders used in the control room as part of the Detailed Control Room Design Review. Implementation shall be carried out in accordance with SECY 82-111B.

R27

ATTACHMENT TO LICENSE AMENDMENT NO. 235

FACILITY OPERATING LICENSE NO. DPR-77

DOCKET NO. 50-327

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change.

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B 3/4 7-7

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-
B 3/4 7-5
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NOTE: Page 6-23 is also affected by the licensee's request; however, page 6-23 was removed in it's entirety by License Amendment 233, dated July 1, 1998.

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PLANT SYSTEMS

3/4.7.9 SNUBBERS

LIMITING CONDITION FOR OPERATION

3.7.9. This specification is deleted.

(Pages 3/4 7-21 through 3/4 7-25 are deleted)

PLANT SYSTEMS

BASES

3/4.7.8 AUXILIARY BUILDING GAS TREATMENT SYSTEM

The OPERABILITY of the auxiliary building gas treatment system ensures that radioactive materials leaking from the ECCS equipment following a LOCA are filtered prior to reaching the environment. The operation of this system and the resultant effect on offsite dosage calculations was assumed in the accident analyses. ANSI N510-1975 will be used as a procedural guide for surveillance testing. Cumulative operation of the system with the heaters on for 10 hours over a 31 day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters.

The minimum vacuum relief flow requirement in TS Surveillance Requirement 4.7.8.d.3 is for test purposes only. It is intended to demonstrate an acceptable level of ABGTS performance margin by simulating an ABSCE boundary breach. The inability to meet the specified minimum test condition under other circumstances does not challenge the operability of the ABGTS.

BR-6

3/4.7.9 SNUBBERS

This specification is deleted.

PLANT SYSTEMS

BASES

This page is deleted

PLANT SYSTEMS

BASES

3/4.7.10 SEALED SOURCE CONTAMINATION

The limitations on removable contamination for sources requiring leak testing, including alpha emitters, is based on 10 CFR 70.39(c) limits for plutonium. This limitation will ensure that leakage from byproduct, source, and special nuclear material sources will not exceed allowable intake values. Sealed sources are classified into three groups according to their use, with surveillance requirements commensurate with the probability of damage to a source in that group. Those sources which are frequently handled are required to be tested more often than those which are not. Sealed sources which are continuously enclosed within a shielded mechanism (i.e., sealed sources within radiation monitoring or boron measuring devices) are considered to be stored and need not be tested unless they are removed from the shielded mechanism.

BR-3

3/4.7.11 FIRE SUPPRESSION SYSTEMS

This Specification is deleted.

R231



**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. 225
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 13, 1998, 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.

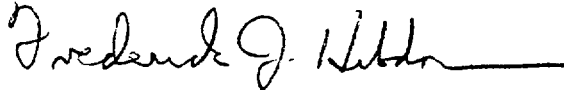
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 2.C.(2) of Facility Operating License No. DPR-79 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 225, 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.

FOR THE NUCLEAR REGULATORY COMMISSION



Frederick J. Hebdon, Director
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: August 28, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 225

FACILITY OPERATING LICENSE NO. DPR-79

DOCKET NO. 50-328

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change.

REMOVE

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NOTE: Page 6-24 is also affected by the licensee's request; however, page 6-24 was removed in it's entirety by License Amendment 223, dated July 1, 1998.

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3/4.8 ELECTRICAL POWER SYSTEMS

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PLANT SYSTEMS

3/4.7.9 SNUBBERS

LIMITING CONDITION FOR OPERATION

3.7.9 This specification is deleted.

(Pages 3/4 7-21 through 3/4 7-25 are deleted)

PLANT SYSTEMS

BASES

3/4.7.8 AUXILIARY BUILDING GAS TREATMENT SYSTEM

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BR-8

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BASES

This page is deleted

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

**SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 235 TO FACILITY OPERATING LICENSE NO. DPR-77
AND AMENDMENT NO. 225 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

The Tennessee Valley Authority (TVA, the licensee) requested amendments to Operating Licenses DPR-77 and DPR-79 for Sequoyah Nuclear Plant (SQN), Units 1 and 2, respectively, in a letter to the U.S. Nuclear Regulatory Commission (NRC) dated February 13, 1998. The amendments would revise the SQN Units 1 and 2 Technical Specifications (TSs) by relocating the mechanical snubber requirements from Section 3.7.9 of the TS, and its bases, to the SQN Technical Requirements Manual (TRM). This change does not alter the requirements for operability or surveillance testing of the snubbers. This amendment also deletes License Condition 2.C.(19), for Unit 1 only. This condition is a one-time snubber-related action that was completed and no longer needs to be included in the SQN Operating License.

2.0 BACKGROUND

TVA requested the proposed change to remove requirements from the SQN TSs that do not meet the criteria in 10 CFR 50.36 for specifications that are required to be contained in the TSs. In the Commission's Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors, published in the Federal Register, Page 39132, Volume 58, Number 139, the NRC stated that TSs that do not meet any of the screening criteria for retention may be proposed for removal from the TSs and relocated to licensee-controlled documents, such as the Final Safety Analysis Report or TRM. This change will allow revisions to the snubber requirements in accordance with 10 CFR 50.59 without requiring a license amendment request and adds flexibility to processing necessary changes.

The License Condition deletion for Unit 1 is proposed to remove requirements from the SQN License that are no longer necessary. The License Condition states the following:

Within 12 months after issuance of the license, TVA shall provide a Technical Specification listing of mechanical snubbers. In the interim, TVA will conduct a comprehensive mechanical snubber inspection program implemented by plant instructions.

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3.0 EVALUATION

Snubbers are active devices used for supporting piping system transients, such as water hammer, pipe failure, or a seismic event. The restraining action of the snubbers ensures that the initiating event failure does not propagate to other parts of the failed system or to other safety systems. Snubbers also allow normal thermal expansion of piping and nozzles to eliminate excessive thermal stresses during startup and shutdown.

The current SQN TSs requirements provide actions for inoperability and surveillances to verify the operability of safety-related snubbers. The current action for an inoperable snubber is to replace or return the snubber to operable status within 72 hours and perform an engineering evaluation of the attached component. The attached system is declared inoperable if the 72 hours expires or the evaluation indicates that the system is inoperable. The current surveillances provide requirements for an augmented inservice inspection program including visual and functional tests. This specification also contains program allowances for inspection interval, lot size, inspection evaluation, lot composition, acceptance criteria, failure analysis, attached component analysis, service life, and exceptions from visual or functional tests.

Current TS Bases discussions contain the basis for requiring snubbers, the basis for the allowed snubber outage time, and clarifications regarding the application of the snubber surveillance requirements.

The proposed changes are consistent with the Westinghouse plant Improved Standard TSs (NUREG-1431) and 10 CFR 50.36. NUREG-1431 does not include requirements for verification of snubber operability and the criteria in 10 CFR 50.36 for features required to be retained in TSs do not apply to the SQN snubbers, as discussed below. NRC's Final Policy Statement recommends that TSs that do not meet the screening criteria for retention may be relocated to a licensee-controlled document. The following discussions address the applicability to the 10 CFR 50.36 criteria:

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.

The snubbers are not installed instrumentation nor do they have the ability to detect abnormal degradation of the reactor coolant pressure boundary. Therefore, the SQN safety-related snubbers do 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.

The snubbers are a design feature that is associated with maintaining the integrity of safety-related piping systems during accident transients. However, the snubbers are not explicitly considered in the accident analysis and are not considered a required initial condition for a DBA or Transient to maintain the integrity of a fission product barrier. The availability of the snubbers is assured based on the performance of periodic inspections and testing. Therefore, the SQN snubbers do 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.

Safety-related snubbers are design features that function during accidents or transients to prevent the propagation of an event to systems that are part of the primary success path for accident mitigation. However, snubbers are not explicitly considered in the accident analysis, but are a structural design feature whose operation is assured by an inspection program. The SQN snubbers are not a primary success path for accident mitigation; therefore, they do 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 or probabilistic safety assessment have not shown the SQN snubbers to be significant to the public health and safety. Therefore, the snubbers do not satisfy Criterion 4.

The proposed relocation of the snubber requirements to the SQN TRM is acceptable based on the above discussions. The TRM has been incorporated into the Final Safety Analysis Report by reference and the relocated requirements will be controlled in accordance with 10 CFR 50.59 to ensure changes are not implemented that would reduce the functionality or testing of the snubbers without prior NRC review. TVA has approved the SQN TRM, which includes these requirements for the snubbers.

The deletion of License Condition 2.C.(19) for Unit 1 is an editorial change that will not impact the function of SQN safety-related features. The action to provide a listing of mechanical snubbers and an interim inspection program was satisfied previously such that this condition is no longer applicable to SQN and the current requirements for safe operation. The snubber listing was added to the SQN Unit 1 TSs in August 1981 but was later removed by Amendment No. 39, dated June 20, 1985 in response to NRC Generic Letter 84-13.

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 amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendment involves 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 amendment involves no significant hazards consideration, and there has been no public comment on such finding (63 FR 17235, dated April 8, 1998). 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: August 28, 1998