April 18, 1994

Docket Nos. 50-327
and 50-328

Mr. Oliver D. Kingsley, Jr.
President, TVA Nuclear and
Chief Nuclear Officer
Tennessee Valley Authority
6A Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Dear Mr. Kingsley:

SUBJECT: ISSUANCE OF AMENDMENTS (TAC NOS. M88777 AND M88778) (TS 93-11)

The Commission has issued the enclosed Amendment No. 179 to Facility Operating License No. DPR-77 and Amendment No. 171 to Facility Operating License No. DPR-79 for the Sequoyah Nuclear Plant, Units 1 and 2, respectively. These amendments are in response to your application dated February 7, 1994.

The amendments revise the surveillance requirements associated with the Snubber Service Life Program and the Snubber Visual Inspection Performance and Evaluation Program.

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

Sincerely,

Original signed by

David E. LaBarge, Sr. Project Manager
Project Directorate II-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 179 to License No. DPR-77
2. Amendment No. 171 to License No. DPR-79
3. Safety Evaluation

cc w/enclosures:
See next page

NAME:	PDII-4/LA	PDII-4/PM	EMEB	OGC NLO	PDII-4/D
OFFICE:	BClayton	DLaBarge	JNorberg	MZobler	FHebdon
DATE:	4/17/94	3/28/94	3/29/94	4/6/94	4/18/94

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Subject to changes made
Noted change
4/7/94

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

April 18, 1994

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and 50-328

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David E. LaBarge, Sr. Project Manager
Project Directorate II-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 179 to License No. DPR-77
2. Amendment No. 171 to License No. DPR-79
3. Safety Evaluation

cc w/enclosures:
See next page

AMENDMENT NO. 179 FOR SEQUOYAH UNIT NO. 1 - DOCKET NO. 50-327 and
AMENDMENT NO. 171 FOR SEQUOYAH UNIT NO. 2 - DOCKET NO. 50-328
DATED: April 18, 1994

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OPA	2-G-5
OC/LFDCB	MNBB-9112

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SEQUOYAH NUCLEAR PLANT

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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. 179
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 7, 1994, 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. 179, 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 within 45 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Frederick J. Hebdon, Director
Project Directorate II-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance:
April 18, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 179

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.

REMOVE	INSERT
3/4 7-22	3/4 7-22
3/4 7-24	3/4 7-24
3/4 7-25	3/4 7-25

SURVEILLANCE REQUIREMENTS (Continued)

c. Visual Inspection Performance and Evaluation

Visual inspections shall verify (1) that there are no visible indications of damage or impaired OPERABILTY, (2) bolts attaching the snubber to the foundation or supporting structure are secure, and (3) snubbers attached to sections of safety-related systems that have experienced unexpected potentially damaging transients since the last inspection period shall be evaluated for the possibility of concealed damage and functionally tested, if applicable, to confirm operability.

Snubbers which appear inoperable as a result of visual inspections may be determined OPERABLE for the purpose of establishing the next visual inspection interval, providing that (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers that may be generically susceptible; and (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 4.7.9.e. Hydraulic snubbers with inoperable single or common fluid reservoirs which have uncovered fluid ports shall be declared inoperable.

Also, snubbers which have been made inoperable as the result of unexpected transients, isolated damage or other such random events, when the provisions of 4.7.9.g and 4.7.9.h have been met and any other appropriate corrective action implemented, shall not be counted in determining the next visual inspection interval.

d. Functional Test Schedule, Lot Size, and Composition

During each refueling outage, a representative sample of 10% of the total of the safety-related snubbers in use in the plant shall be functionally tested either in place or in a bench test.

f. Functional Test Failure Analysis and Additional Test Lots (Continued)

If more than two snubbers do not meet the functional test acceptance criteria, an additional lot equal to one-half the original lot size shall be functionally tested for each failed snubber in excess of the two allowed failures. An engineering evaluation shall be made of each failure to meet the functional test acceptance criteria to determine the cause of the failure. The result of this analysis shall be used, if applicable, in selecting snubbers to be tested in the subsequent lot in an effort to determine the operability of other snubbers which may be subject to the same failure mode. (Selection of snubbers for future testing may also be based on the failure analysis.) Testing shall continue until not more than one additional inoperable snubber is found within a subsequent required lot or all snubbers of the original inspection group have been tested, or all suspect snubbers identified by the failure analysis have been tested, as applicable.

The discovery of loose or missing attachment fasteners will be evaluated to determine whether the cause may be localized or generic. The result of the evaluation will be used to select other suspect snubbers for verifying the attachment fasteners, as applicable.

Snubbers shall not be subjected to prior maintenance specifically for the purpose of meeting functional test requirements.

g. Functional Test Failure - Attached Component Analysis

For snubber(s) found inoperable, an engineering evaluation shall be performed on the components which are restrained by the snubber(s). The purpose of this engineering evaluation shall be to determine if the components restrained by the snubber(s) were adversely affected by the inoperability of the snubber(s), and in order to ensure that the restrained component remains capable of meeting the designed service.

h. Functional Testing of Repaired and Spare Snubbers

Snubbers which fail the visual inspection or the functional test acceptance criteria shall be repaired or replaced. Replacement snubbers and snubbers which have repairs which might affect the functional test results shall be tested to meet the functional test criteria before installation in the unit. These snubbers shall have met the acceptance criteria subsequent to their most recent service, and the functional test must have been performed within 12 months before being installed in the unit.

i. Snubber Service Life Program

The service life of hydraulic and mechanical snubbers shall be monitored to ensure that the service life is not exceeded between surveillance inspections. The maximum expected service life for various seals, springs, and other critical parts shall be determined and established

SURVEILLANCE REQUIREMENTS (Continued)

i. Snubber Service Life Program (Continued)

based on engineering information and shall be extended or shortened based on monitored test results and failure history. Critical parts shall be replaced so that the maximum service life will not be exceeded during a period when the snubber is required to be OPERABLE. The parts replacements shall be documented and the documentation shall be retained in accordance with Specification 6.10.2.n.

j. Exemption From Visual Inspection or Functional Tests

Permanent or other exemptions from the surveillance program for individual snubbers may be granted by the Commission if a justifiable basis for exemption is presented and if applicable snubber life destructive testing was performed to qualify snubber operability for the applicable design conditions at either the completion of their fabrication or at a subsequent date.

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. 171
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 7, 1994, 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. 171, 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 within 45 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Frederick J. Hebdon, Director
Project Directorate II-4
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance:
April 18, 1994

ATTACHMENT TO LICENSE AMENDMENT NO. 171

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	INSERT
3/4 7-22	3/4 7-22
3/4 7-25	3/4 7-25

SURVEILLANCE REQUIREMENTS

c. Visual Inspection Performance and Evaluation

Visual inspections shall verify (1) that there are no visible indications of damage or impaired OPERABILITY, (2) bolts attaching the snubber to the foundation or supporting structure are secure, and (3) snubbers attached to sections of safety-related systems that have experienced unexpected potentially damaging transients since the last inspection period shall be evaluated for the possibility of concealed damage and functionally tested, if applicable, to confirm operability.

Snubbers which appear inoperable as a result of visual inspections may be determined OPERABLE for the purpose of establishing the next visual inspection interval, providing that (1) the cause of the rejection is clearly established and remedied for that particular snubber and for other snubbers that may be generically susceptible; and (2) the affected snubber is functionally tested in the as-found condition and determined OPERABLE per Specification 4.7.9.e. Hydraulic snubbers with inoperable single or common fluid reservoirs which have uncovered fluid ports shall be declared inoperable.

SURVEILLANCE REQUIREMENTS (Continued)

g. Functional Test Failure - Attached Component Analysis

For snubbers(s) found inoperable, an engineering evaluation shall be performed on the components which are restrained by the snubber(s). The purpose of this engineering evaluation shall be to determine if the components restrained by the snubber(s) were adversely affected by the inoperability of the snubbers(s), and in order to ensure that the restrained component remains capable of meeting the designed service.

h. Functional Testing of Repaired and Spare Snubbers

Snubbers which fail the visual inspection or the functional test acceptance criteria shall be repaired or replaced. Replacement snubbers and snubbers which have repairs which might affect the functional test results shall be tested to meet the funtional test criteria before installation in the unit. These snubbers shall have met the acceptance criteria subsequent to their most recent service, and the functional test must have been performed within 12 months before being installed in the unit.

i. Snubber Service Life Program

The service life of hydraulic and mechanical snubbers shall be monitored to ensure that the service life is not exceeded between surveillance inspections. The maximum expected service life for various seals, springs, and other critical parts shall be determined and established based on engineering information and shall be extended or shortened based on monitored test results and failure history. Critical parts shall be replaced so that the maximum service life will not be exceeded during a period when the snubber is required to be OPERABLE. The parts replacements shall be documented and the documentation shall be retained in accordance with Specification 6.10.2.n.

j. Exemption From Visual Inspection or Functional Tests

Permanent or other exemptions form the surveillance program for individual snubbers may be granted by the Commission if a justifiable basis for exemption is presented and if applicable snubber life destructive testing was performed to qualify snubber operability for the applicable design conditions at either the completion of their fabrication or at a subsequent date.

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

ENCLOSURE 3

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 179 TO FACILITY OPERATING LICENSE NO. DPR-77

AND AMENDMENT NO. 171 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 7, 1994, the Tennessee Valley Authority (the licensee) proposed amendments to the Technical Specifications (TS) for Sequoyah Nuclear Plant (SQN) Units 1 and 2. The requested changes would replace the wording in Surveillance Requirement (SR) 4.7.9.i, "Snubber Service Life Program," with that from the Westinghouse Electric Corporation Standard TS, Revision 4a. In addition, the wording in SR 4.7.9.c, "Snubber Visual Inspection Performance and Evaluation," that is inconsistent with Generic Letter (GL) 90-09, would be deleted.

2.0 EVALUATION

SR 4.7.9.i presently requires: (1) the seal service life of hydraulic snubbers be monitored to ensure that the seals do not fail between surveillance inspections; (2) the maximum expected service life for the various seals, seal materials, and applications, be estimated based on engineering information; (3) the seals be replaced so that the maximum expected service life does not expire during the period when the snubber is required to be operable; (4) any mechanical snubber drag force increase more than 50 percent over the previously measured values must be evaluated as an indication of impending failure of the snubber; and (5) seal replacements and evaluations must be documented and the documentation retained.

The licensee has proposed rewording this SR to be consistent with the Westinghouse Standard TS, Revision 4a, regarding the Snubber Service Life Program. One result would be to more clearly specify the seal components to be included in the service life program by replacing the words "seal materials, and applications" with "springs, and other critical parts." Because the wording more clearly describes the components, the proposed change is acceptable.

A second result would be elimination of the requirement to perform an engineering evaluation if a snubber drag force increases by more than 50 percent above the previously measured value. The licensee stated that the requirement is unnecessary for snubbers with a relatively small drag force

measured during a test. This is because a small increase in drag force found during the next test, even if it is greater than 50 percent of the previous value, may still be well within the acceptable range when it is compared with the rated load of the snubber. The current Sequoyah procedures have defined snubber failure as any measured drag force of 5 percent or greater of rated load, with some exceptions for lower-rated snubbers. When a drag force of 4 percent or greater is measured, an engineering evaluation is necessary. As such, a program for predicting snubber failure has been established that is consistent with the Standard TS regarding snubber functional testing criteria. The staff finds the proposed change to be acceptable.

A third result would be to more clearly specify that engineering information will be used to shorten or extend the maximum expected service life based on the test results and failure history. Critical parts will be replaced so that the snubber service life will not be exceeded during the period when the snubber is required to be operable. Since this is consistent with the Standard TS, it is acceptable.

The proposed change to SR 4.7.9.c, "Snubber Visual Inspection Performance and Evaluation," would revise the SR to be more consistent with GL 90-09, "Alternative Requirements for Snubber Visual Inspection Intervals and Corrective Actions," dated December 11, 1990. The change would remove the term "if applicable" for performing the functional test in its as-found condition for snubbers that appear to be unacceptable as a result of a visual inspection, thereby requiring a functional test of any with visual defects. This proposed change is consistent with the GL and is, therefore, acceptable.

The change to SR 4.7.9.c would also remove the prescriptive test guidance concerning snubbers with uncovered fluid ports. Presently, the SR requires that tests of these snubbers be performed by starting with the piston in the as-found setting and then extending the piston rod in the extension mode direction. However, once the fluid port is uncovered, the snubber is considered to be inoperable (per Specification 4.7.9.c) and the appropriate compensatory measures must be taken. Therefore, the requirement to perform the test is not appropriate. For this reason and its consistency with GL 90-09, the proposed change is acceptable.

In summary, the proposed change incorporates requirements and revises wording to be consistent with Revision 4a of the Standard TS and GL 90-09 for the Snubber Service Life Program, SR 4.7.9.i, and the Snubber Visual Inspection Performance and Evaluation Program, SR 4.7.9.c. The staff finds the proposed changes to be acceptable.

3.0 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.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a surveillance requirement. 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 (59 FR 12367). 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.

5.0 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: David E. LaBarge

Dated: April 18, 1994