August 22, 1995

Mr. Oliver D. Kingsley, Jr.
President, TVA Nuclear and
Chief Nuclear Officer
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. M91984 AND M91985) (TS 94-18)

Dear Mr. Kingsley:

The Commission has issued the enclosed Amendment No. 208 to Facility Operating License No. DPR-77 and Amendment No. 198 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 April 6, 1995.

The amendments revise Surveillance Requirement 4.0.5 by replacing the current Inservice Inspection program and the Inservice Testing program requirements with the requirements stated in the Standard Technical Specifications (NUREG-1431). The amendments also delete Technical Specification 3/4.4.10, "Structural Integrity ASME Code Class 1, 2 and 3 Components," and its related Bases information.

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-3
Division of Reactor Projects - I/I
Office of Nuclear Reactor Regulation

Docket Nos. 50-327 and 50-328

Enclosures:
1. Amendment No. 208 to License No. DPR-77
2. Amendment No. 198 to License No. DPR-79
3. Safety Evaluation

cc w/enclosures: See next page

To receive a copy of this document, indicate in the box:
"C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure
"N" = No copy

OFFICE	PDII-3/LA	E	PDII-3/PM	E			OGC	N	PDII-3/D	C
NAME	BClayton		DLaBarge				EHoller		FHebdon	
DATE	8/2/95		8/2/95				8/14/95		8/22/95	

OFFICIAL RECORD COPY

9508280397 950822
PDR ADOCK 05000327
P PDR

DF01

AMENDMENT NO. 208 FOR SEQUOYAH UNIT NO. 1 - DOCKET NO. 50-327 and
AMENDMENT NO. 198 FOR SEQUOYAH UNIT NO. 2 - DOCKET NO. 50-328
DATED: August 22, 1995

<u>DISTRIBUTION W/ENCLOSURE</u>

Docket Files	
PUBLIC	
SQN Reading File	
S. Varga	O-14-E-4
G. Hill	T-5-C-3(2 per docket)
C. Grimes	O-11-E-22
L. Dudes	
ACRS(4)	
E. Merschoff	RII
M. Lesser	RII

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. 208
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 April 6, 1995, 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) <u>Technical Specifications</u>

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 208, 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

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 22, 1995

cc:
Mr. O. J. Zeringue, Sr. Vice President
Nuclear Operations
Tennessee Valley Authority
3B Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

Dr. Mark O. Medford, Vice President
Engineering & Technical Services
Tennessee Valley Authority
3B Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

Mr. D. E. Nunn, Vice President
New Plant Completion
Tennessee Valley Authority
3B Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

Site Vice President
Sequoyah Nuclear Plant
Tennessee Valley Authority
P.O. Box 2000
Soddy Daisy, TN 37379

General Counsel
Tennessee Valley Authority
ET 11H
400 West Summit Hill Drive
Knoxville, TN 37902

Mr. P. P. Carier, Manager
Corporate Licensing
Tennessee Valley Authority
4G Blue Ridge
1101 Market Street
Chattanooga, TN 37402-2801

Mr. Ralph H. Shell
Site Licensing Manager
Sequoyah Nuclear Plant
Tennessee Valley Authority
P.O. Box 2000
Soddy Daisy, TN 37379

TVA Representative
Tennessee Valley Authority
11921 Rockville Pike
Suite 402
Rockville, MD 20852

Regional Administrator
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW., Suite 2900
Atlanta, GA 30323

Mr. William E. Holland
Senior Resident Inspector
Sequoyah Nuclear Plant
U.S. Nuclear Regulatory Commission
2600 Igou Ferry Road
Soddy Daisy, TN 37379

Mr. Michael H. Mobley, Director
Division of Radiological Health
3rd Floor, L and C Annex
401 Church Street
Nashville, TN 37243-1532

County Judge
Hamilton County Courthouse
Chattanooga, TN 37402-2801

ATTACHMENT TO LICENSE AMENDMENT NO. 208

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
VI	VI
3/4 0-2	3/4 0-2
3/4 0-3	3/4 0-3
3/4 4-27	3/4 4-27
B3/4 0-5	B3/4 0-5
B3/4 4-14	B3/4 4-14

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

SECTION | PAGE

APPLICABILITY

SURVEILLANCE REQUIREMENTS

4.0.1 Surveillance Requirements shall be met during the OPERATIONAL MODES or other conditions specified for individual Limiting Conditions for Operation unless otherwise stated in an individual Surveillance Requirement.

4.0.2 Each Surveillance Requirement shall be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified surveillance interval.

4.0.3 Failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by Specification 4.0.2, shall constitute noncompliance with the OPERABILITY requirements for a Limiting Condition for Operation. The time limits of the ACTION requirements are applicable at the time it is identified that a Surveillance Requirement has not been performed. The ACTION requirements may be delayed for up to 24 hours to permit the completion of the surveillance when the allowable outage time limits of the ACTION requirements are less than 24 hours. Surveillance Requirements do not have to be performed on inoperable equipment.

4.0.4 Entry into an OPERATIONAL MODE or other specified condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation have been performed within the specified surveillance interval or as otherwise specified. This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION requirements.

4.0.5 Surveillance Requirements for inservice inspection and testing of ASME Code Class 1, 2, and 3 components shall be as follows:

Inservice Inspection Program

This program provides controls for inservice inspection of ASME Code Class 1, 2, and 3 components, including applicable supports. The program shall include the following:

a. Provisions that inservice inspection of ASME Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50.55a;

b. The provisions of SR 4.0.2 are applicable to the frequencies for performing inservice inspection activities;

c. Inspection of each reactor coolant pump flywheel per the recommendation of Regulation Position c.4.b of Regulatory Guide 1.14, Revision 1, August 1975; and

d. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any TS.

SURVEILLANCE REQUIREMENTS (Continued)

4.0.5 (Continued)

Inservice Testing Program

This program provides controls for inservice testing of ASME Code Class 1, 2, and 3 components including applicable supports. The program shall include the following:

a. Provisions that inservice testing of ASME Code Class 1, 2, and 3 pumps and valves shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50.55a;

b. Testing frequencies specified in Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as follows:

ASME Boiler and Pressure Vessel Code and applicable Addenda terminology for inservice testing activities	Required frequencies for performing inservice testing activities
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days
Biennially or every 2 years	At least once per 731 days

c. The provisions of SR 4.0.2 are applicable to the above required Frequencies for performing inservice testing activities;

d. The provisions of SR 4.0.3 are applicable to inservice testing and activities; and

e. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any TS.

3/4.4.10 DELETED

4.0.4 This specification establishes the requirement that all applicable surveillances must be met before entry into an OPERATIONAL MODE or other condition of operation specified in the Applicability statement. The purpose of this specification is to ensure that system and component OPERABILITY requirements or parameter limits are met before entry into a MODE or condition for which these systems and components ensure safe operation of the facility. This provision applies to changes in OPERATIONAL MODES or other specified conditions associated with plant shutdown as well as startup.

Under the provisions of this specification, the applicable Surveillance Requirements must be performed within the specified surveillance interval to ensure that the Limiting Conditions for Operations are met during initial plant startup or following a plant outage.

When a shutdown is required to comply with ACTION requirements, the provisions of Specification 4.0.4 do not apply because this would delay placing the facility in a lower MODE of operation.

4.0.5 This specification ensures that inservice inspection of ASME Code Class 1, 2 and 3 components and inservice testing of ASME Code Class 1, 2 and 3 pumps and valves will be performed in accordance with a periodically updated version of Section XI of the ASME Boiler and Pressure Vessel Code and Addenda as required by 10 CFR 50.55a.

This specification includes a clarification of the frequencies for performing the inservice inspection and testing activities required by Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda. This clarification is provided to ensure consistency in surveillance intervals throughout these technical specifications and to remove any ambiguties relative to the frequencies for performing the required inservice inspection and testing activities.

Under the terms of this specification, the more restrictive requirements of the Technical Specifications take precedence over the ASME Boiler and Pressure Vessel Code and applicable Addenda. For example, the requirements of Specification 4.0.4 to perform surveillance activities prior to entry into an OPERATIONAL MODE or other specified applicability condition takes precedence over the ASME Boiler and Pressure Vessel Code provision which allows pumps to be tested up to one week after return to normal operation. And for example, the Technical Specification definition of OPERABLE does not grant a grace period before a device that is not capable of performing its specified function is declared inoperable and takes precedence over the ASME Boiler and Pressure Vessel Code provision which allows a valve to be incapable of performing its specified function for up to 24 hours before being declared inoperable.

3/4.4.10 DELETED

3/4.4.11 REACTOR COOLANT SYSTEM HEAD VENTS

The function of the RCS head vents is to remove non-condensables or steam from the reactor vessel head. This system is designed to mitigate a possible condition of inadequate core cooling, inadequate natural circulation, or inability to depressurize the RHR System initiated conditions resulting from the accumulation of non-condensable gases in the Reactor Coolant System. The reactor vessel head vent is designed with redundant safety grade vent paths.

3/4.4.12 OVERPRESSURE PROTECTION SYSTEM

The operability of two PORVs or an RCS vent opening of at least three square inches ensures that the RCS will be protected from pressure transients which could exceed the limits of Appendix G to 10 CFR Part 50 when one or more of the RCS cold legs are less than or equal to 350 degrees F. Either PORV has adequate relieving capability to protect the RCS from overpressurization when the transient is limited to either: (1) the start of an idle RCP with a water-solid RCS and a secondary water temperature of the steam generator less than or equal to 50 degrees F above the RCS cold leg temperatures, or (2) the start of a charging pump and its injection into the RCS with letdown isolated.

The maximum allowed PORV setpoint for the low temperature overpressure protection (LTOP) system is derived by analysis which models the performance of the LTOP system assuming various mass input and heat input transients. Operation with the PORV setpoint less than or equal to the maximum setpoint ensures that Appendix G criteria will not be violated with consideration for a maximum pressure overshoot beyond the PORV setpoint which can occur as a result of time delays in signal processing and valve opening, instrument uncertainties, and single failure. To ensure that mass and heat input transients more severe than those assumed cannot occur, technical specifications require tagout or isolation of all but one centrifugal charging pump while in modes 4, 5, and 6 with the reactor vessel head installed and disallow restart of an RCP if a steam bubble does not exist in the pressurizer.

The LTOP system setpoints include a 50 degree F allowance for heat transport effects and a 27 degree F allowance for instrument accuracy. An 800 psig pressure limit protects the PORV piping from the consequences of a possible water hammer caused by the rapid opening times associated with the PORVs.

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. 198
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 April 6, 1995, 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. 198, 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

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 22, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 198

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
VI	VI
3/4 0-2	3/4 0-2
3/4 0-3	3/4 0-3
3/4 4-32	3/4 4-32
B3/4 0-5	B3/4 0-5
B3/4 4-14	B3/4 4-14

INDEX

LIMITING CONDITIONS FOR OPERATION AND SURVEILLANCE REQUIREMENTS

SURVEILLANCE REQUIREMENTS

4.0.1 Surveillance Requirements shall be met during the OPERATIONAL MODES or other conditions specified for individual Limiting Conditions for Operation unless otherwise stated in an individual Surveillance Requirement.

4.0.2 Each Surveillance Requirement shall be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified surveillance interval.

4.0.3 Failure to perform a Surveillance Requirement within the allowed surveillance interval, defined by Specification 4.0.2, shall constitute noncompliance with the OPERABILITY requirements for a Limiting Condition for Operation. The time limits of the ACTION requirements are applicable at the time it is identified that a Surveillance Requirement has not been performed. The ACTION requirements may be delayed for up to 24 hours to permit the completion of the surveillance when the allowable outage time limits of the ACTION requirements are less than 24 hours. Surveillance Requirements do not have to be performed on inoperable equipment.

4.0.4 Entry into an OPERATIONAL MODE or other specified condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation have been performed within the specified surveillance interval or as otherwise specified. This provision shall not prevent passage through or to OPERATIONAL MODES as required to comply with ACTION requirements.

4.0.5 Surveillance Requirements for inservice inspection and testing of ASME Code Class 1, 2, and 3 components shall be applicable as follows:

Inservice Inspection Program

This program provides controls for Inservice inspection of ASME Code Class 1, 2, and 3 components, including applicable supports. The program shall include the following:

a. Provisions that inservice inspection of ASME Code Class 1, 2, and 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50.55a;

b. The provisions of SR 4.0.2 are applicable to the frequencies for performing inservice inspection activities;

c. Inspection of each reactor coolant pump flywheel per the recommendations of Regulation Position c.4.b of Regulatory Guide 1.14, Revision 1, August 1975; and

d. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any TS.

SURVEILLANCE REQUIREMENTS (Continued)

4.0.5 continued

Inservice Testing Program

This program provides controls for inservice testing of ASME Code Class 1, 2, and 3 components including applicable supports. The program shall include the following:

a. Provisions that inservice testing of ASME Code Class 1, 2, and 3 pumps and valves shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50.55a;

b. Testing frequencies specified In section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as follows:

ASME Boiler and Pressure Vessel Code and applicable Addenda terminology for inservice testing activities	Required Frequencies for performing inservice testing activities
Weekly	At least once per 7 days
Monthly	At least once per 31 days
Quarterly or every 3 months	At least once per 92 days
Semiannually or every 6 months	At least once per 184 days
Every 9 months	At least once per 276 days
Yearly or annually	At least once per 366 days
Biennially or every 2 years	At least once per 731 days

c. The provisions of SR 4.0.2 are applicable to the above required Frequencies for performing inservice testing activities;

d. The provisions of SR 4.0.3 are applicable to inservice testing activities; and

e. Nothing in the ASME Boiler and Pressure Vessel Code shall be construed to supersede the requirements of any TS.

REACTOR COOLANT SYSTEM

3/4.4.10 DELETED

4.0.4 This specification establishes the requirement that all applicable surveillances must be met before entry into an OPERATIONAL MODE or other condition of operation specified in the Applicability statement. The purpose of this specification is to ensure that system and component OPERABILITY requirements or parameter limits are met before entry into a MODE or condition for which these systems and components ensure safe operation of the facility. This provision applies to changes in OPERATIONAL MODES or other specified conditions associated with plant shutdown as well as startup.

Under the provisions of this specification, the applicable Surveillance Requirements must be performed within the specified surveillance interval to ensure that the Limiting Conditions for Operations are met during initial plant startup or following a plant outage.

When a shutdown is required to comply with ACTION requirements, the provisions of Specification 4.0.4 do not apply because this would delay placing the facility in a lower MODE of operation.

4.0.5 This specification ensures that inservice inspection of ASME Code Class 1, 2 and 3 components and inservice testing of ASME Code Class 1, 2 and 3 pumps and valves will be performed in accordance with a periodically updated version of Section XI of the ASME Boiler and Pressure Vessel Code and Addenda as required by 10 CFR 50.55a.

This specification includes a clarification of the frequencies for performing the inservice inspection and testing activities required by Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda. This clarification is provided to ensure consistency in surveillance intervals throughout these Technical Specifications and to remove any ambiguties relative to the frequencies for performing the required inservice inspection and testing activities.

Under the terms of this specification, the more restrictive requirements of the Technical Specifications take precedence over the ASME Boiler and Pressure Vessel Code and applicable Addenda. For example, the requirements of Specification 4.0.4 to perform surveillance activities prior to entry into an OPERATIONAL MODE or other specified applicability condition takes precedence over the ASME Boiler and Pressure Vessel Code provision which allows pumps to be tested up to one week after return to normal operation. And for example, the Technical Specification definition of OPERABLE does not grant a grace period before a device that is not capable of performing its specified function is declared inoperable and takes precedence over the ASME Boiler and Pressure Vessel Code provision which allows a valve to be incapable of performing its specified function for up to 24 hours before being declared inoperable.

PRESSURE/TEMPERATURE LIMITS (Continued)

Following the generation of pressure-temperature curves for both the steady-state and finite heatup rate situations, the final limit curves are produced as follows. A composite curve is constructed based on a point-by-point comparison of the steady-state and finite heatup rate data. At any given temperature, the allowable pressure is taken to be the lesser of the three values taken from the curves under consideration.

The use of the composite curve is necessary to set conservative heatup limitations because it is possible for conditions to exist such that over the course of the heatup ramp the controlling condition switches from the inside to the outside and the pressure limit must at all times be based on analysis of the most critical criterion.

The leak test limit curve shown in Figure 3.4-2 represents the minimum temperature requirements at the leak test pressure specified by applicable codes. The leak test limit curve was determined by methods of Branch Technical Position MTEB 5-2 and 10 CFR 50, Appendix G.

The criticality limit curve shown in Figure 3.4-2 specifies pressure-temperature limits for core operation to provide additional margin during actual power production. The pressure-temperature limits for core operation (except for low power physics tests) require the reactor vessel to be at a temperature equal to or higher than the minimum temperature required for the in-service hydrostatic test, and at least 40 degrees F higher than the minimum pressure-temperature curve for heatup and cooldown. The maximum temperature for the in-service hydrostatic test for the SQN Unit 2 reactor vessel is 274 degrees F. A vertical line at 274 degrees F on the pressure-temperature curve, intersecting a curve 40 degrees F higher than the pressure-temperature limit curve, constitutes the limit for core operation for the reactor vessel.

Finally, the composite curves for the heatup rate data and the cooldown rate data are adjusted for possible errors in the pressure and temperature sensing instruments by the values indicated on the respective curves.

Although the pressurizer operates in temperature ranges above those for which there is reason for concern of non-ductile failure, operating limits are provided to assure compatibility of operation with the fatigue analysis performed in accordance with the ASME Code requirements.

3/4.4.10 DELETED

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 208 TO FACILITY OPERATING LICENSE NO. DPR-77

AND AMENDMENT NO. 198 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 letter dated April 6, 1995, the Tennessee Valley Authority (the licensee) requested changes to the Technical Specifications (TS) for the Sequoyah Nuclear Plant (SQN) Units 1 and 2. The TS changes relate to inservice inspection (ISI) and inservice testing (IST) requirements which are specified in Section 50.55a, "Codes and Standards," of Title 10 of the Code of Federal Regulations (10 CFR).

The American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (the code) is incorporated by reference as the requirements for ISI and IST (as specified in Section XI of the Code). The proposed changes would revise TS surveillance requirement (SR) 4.0.5 in accordance with the recommendations of NUREG-1482, "Guidelines for Inservice Testing at Nuclear Power Plants," and NUREG-1431, "Standard Technical Specifications" (STS). The proposed changes would also relocate TS 3/4.4.10, "Structural Integrity," in accordance with the Commission's Final Policy Statement for relocation of current TS that do not meet the screening criteria for retention.

2.0 BACKGROUND

The Commission's Final Policy Statement on TS improvements defines the scope of the TS and provides the criteria for technical design items to be included in, or relocated out of, the TS document. On July 19, 1995 (60 FR 36953) the NRC published the final rule governing the implementation of this policy via a revision of 10 CFR 50.36, "Technical Specifications," which is to become effective August 18, 1995.

The April 7, 1995, revised version of the STS (NUREG-1431, Rev.1), relocated the IST requirements to the administrative controls section of the TS and deleted a portion of the ISI requirements, retaining the reactor coolant pump (RCP) flywheel inspections in the administrative control section. NUREG-1482, Chapter 6, recommended that licensee's revise their TS to incorporate the revised STS for IST programs.

ENCLOSURE 3

The current 10-year interval for the SQN IST program began July 1, 1981, for Unit 1 and June 1, 1982, for Unit 2. However, due to extended shutdown periods the program was extended as allowed by Section XI of the ASME Code. The current IST program for Unit 1 is based on the requirements of the 1974 Edition through Summer 1975 Addenda of the ASME Code. The current IST program for Unit 2 is based on the requirements of the 1977 Edition through Summer 1978 Addenda of the ASME Code.

The current ISI program for SQN Units 1 and 2 is based on the 1977 Edition through Summer 1978 Addenda of the ASME Code. The 10-year interval for ISI has also been extended due to the extended shutdown periods of the two units.

On July 26, 1995, during a conference call, the licensee stated that the Second 10-year interval programs for both ISI and IST for SQN Units 1 and 2 would begin on December 15, 1995, with both programs based on the requirements of the 1989 Edition of the ASME Code. The TS change will allow the licensee a period of 12 months from the beginning of the interval to identify, submit, and obtain approval of relief requests for impractical code requirements in accordance with 10 CFR 50.55a, paragraphs (f)(5) and (g)(5), for IST and ISI respectively.

3.0 EVALUATION

The licensee's proposed change revises the ISI and IST commitments in the TS, incorporating the recommended STS verbiage. The licensee also deletes section 3/4.4.10, "Structural Integrity," from the Reactor Coolant System chapter.

3.1 Proposed change, SR 4.0.5

3.1.1 The revised version of SR 4.0.5 divides the TS into ISI and IST requirements and incorporates a format change which defines a new surveillance frequency for IST (i.e., "Biennially or every 2 years" - at least once per 731 days). This change is editorial in nature and the staff finds it consistent with the STSs. Therefore, the revision is acceptable.

3.1.2 The new IST TS requirements also address failure to perform SRs in the allowable interval. This is considered a TS improvement that provides guidance for failure to perform IST within the allowed surveillance interval. Therefore, the revision is acceptable.

3.1.3 The revised IST requirement deletes the reference to snubbers as the testing and inspection requirements are outlined in TS 3/4.7.9. This change is acceptable since the component testing and inspection requirements are found in another section of the TS.

3.1.4 The licensee also proposed a revision to the Bases of SR 4.0.5, deleting the sentence requiring written relief from the Commission under all ISI and IST testing deviations. TVA based this revision on the guidance of the draft NUREG-1482; however, subsequent revisions have incorporated guidance regarding relief from the Commission. If an impracticality is determined within the initial interval or within the first 12 months of a new interval, the licensee follows the requirements in 10 CFR 50.55a(f)(5)(iii) and (iv) or (g)(5)(iii) and (iv). If an impractical requirement is identified during subsequent intervals and not within the first 12 months, the licensee must meet the requirements of 10 CFR 50.55a(f)(5)(iii) or (g)(5)(iii), notify the Commission, submit the information supporting the determination of impracticality and obtain NRC's approval pursuant to (f)(6)(i) or (g)(6)(i), prior to the time that the next test or inspection is required. However, the specification does not allow the licensee to implement alternative testing under paragraphs 50.55a (a)(3)(i) and (ii) until authorized by the Director of the Office of Nuclear Reactor Regulation.

These changes to the licensee's TS are consistent with the intent of the revised STS and the regulatory guidance in NUREG-1482. The ISI and IST requirements are given in 10 CFR 50.55a which the licensee documents via its 10 year interval program requirements. The change is acceptable since the regulatory requirements are delineated in 10 CFR 50.55a and the items remaining in the TS serve to clarify the more restrictive operability requirements maintained by the licensee and provide consistency in surveillance intervals throughout the TS. The change eliminates inconsistencies between the TS and the regulations.

3.2 RELOCATION OF TS 3/4.4.10. "STRUCTURAL INTEGRITY"

The licensee proposed removal of Section 3/4.4.10 from the TS and relocated the associated SR 4.4.10 to the ISI requirements in SR 4.0.5. SR 4.4.10 requires inspection of the Reactor Coolant Pump Flywheel. The revised STS have also removed these requirements from the Reactor Coolant System chapter and relocated the SR regarding the reactor coolant pump flywheel to the administrative controls section of the STS. The licensee has instead relocated this SR to the ISI requirements in SR 4.0.5 since it precludes revising 15 to 20 other references to SR 4.0.5 that are located throughout the SQN TS.

As indicated in the final policy statement (10 CFR 50.36), many requirements may be removed from TS and controlled by other documents. The NRC has determined that the action statements for structural integrity can be removed from TS and put in a controlled document. TVA indicates that these items are included in its ISI program document and covered by SR 4.0.5. The RCP flywheel examination SR is retained because it is not covered under 10 CFR 50.55a requirements, but it may be relocated to SR 4.0.5 for administration of the exam.

The changes proposed by the licensee are acceptable based on the regulatory guidance provided in 10 CFR 50.36, NUREG-1482 and NUREG-1431. The revised TS are consistent with the STS and maintain an acceptable level of quality and safety.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Tennessee State official was notified of the proposed issuance of the amendment. 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 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 (60 FR 20528). Accordingly, the amendment meets 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 amendment.

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.

Principal Contributor: Laura A. Dudes

Dated: August 22, 1995

AMENDMENT NO. 208 FOR SEQUOYAH UNIT NO. 1 - DOCKET NO. 50-327 and
AMENDMENT NO. 198 FOR SEQUOYAH UNIT NO. 2 - DOCKET NO. 50-328
DATED: August 22, 1995

DISTRIBUTION W/ENCLOSURE

Docket Files	
PUBLIC	
SQN Reading File	
S. Varga	0-14-E-4
G. Hill	T-5-C-3(2 per docket)
C. Grimes	0-11-E-22
L. Dudes	
ACRS(4)	
E. Merschoff	RII
M. Lesser	RII