Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37384-2000

May 14, 2001

TVA-SQN-TS-01-02 10 CFR 50.90

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Gentlemen:

In the Matter of) Docket No. 50-327
Tennessee Valley Authority)

SEQUOYAH NUCLEAR PLANT (SQN) - UNIT 1 - TECHNICAL SPECIFICATION (TS) CHANGE NO. 01-02, "LICENSE CONDITION COMMITMENT CLARIFICATION FOR STEAM GENERATOR DENT INSPECTION"

References:

1. NRC letter to TVA dated June 21, 2000, "Summary - May 15, 2000, Meeting to Discuss TVA's Inspection of Sequoyah Unit 1 Steam Generator Tubes During the Cycle 10 Refueling Outage.

2. TVA letter to NRC dated March 17, 1997, "Sequoyah Nuclear Plant (SQN) - NRC Request for Additional Information - Review of Technical Specification Change 96-05 Regarding Voltage-Based Alternate Repair Criteria for Steam Generator Tubes Sequoyah Units 1 and 2"

3. TVA letter to NRC dated March 12, 1997, "Sequoyah Nuclear Plant (SQN) - NRC Request for Additional Information - Review of Technical Specification Change 96-05 Regarding Voltage-Based Alternate Repair Criteria for Steam Generator Tubes Sequoyah Units 1 and 2"

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4. NRC letter to TVA dated May 10, 2001, "Revised Summary of April 11, 2001, Meeting Regarding Sequoyah Unit 1 Steam Generator Inspection Plan for Cycle 11 Refueling Outage"

In accordance with the provisions of 10 CFR 50.4 and 50.90, TVA is submitting a request for an amendment to SQN Operating License DPR-77 for Unit 1. The proposed amendment provides clarification of a TVA commitment as contained in SQN Unit 1 License Condition 2.C.(9)(d). The commitment is associated with steam generator inspection criteria for identified tubes with dented intersections less than 5 volts. Clarification of TVA's commitment is based on agreements reached during an April 11, 2001 meeting between TVA and NRC staff.

TVA has determined that there are no significant hazards considerations associated with the proposed change and that the change is exempt from environmental review pursuant to the provisions of 10 CFR 51.22(c)(9). The SQN Plant Operations Review Committee and the SQN Nuclear Safety Review Board have reviewed this proposed change and determined that operation of SQN Unit 1, in accordance with the proposed change, will not endanger the health and safety of the public. Additionally, in accordance with 10 CFR 50.91(b)(1), TVA is sending a copy of this letter to the Tennessee State Department of Public Health.

Enclosure 1 to this letter provides the description and evaluation of the proposed change. This includes TVA's determination that the proposed change does not involve a significant hazards consideration, and is exempt from environmental review. Enclosure 2 contains a copy of the License Condition page from Unit 1 marked up to show the proposed change. Enclosure 3 forwards the revised TS page for Unit 1 which incorporates the proposed change. Enclosure 4 contains the TVA commitment clarification.

TVA's proposed amendment supports the upcoming Unit 1 Cycle 11 refueling outage and the associated Unit 1 steam generator inspections scheduled to begin in October 2001. In this regard, TVA is requesting NRC review and approval to support the Unit 1 Cycle 11 refueling outage.

TVA requests that the revision be made effective within 45 days of NRC approval. If you have any questions about

this change, please telephone me at (423) 843-7170 or J. D. Smith at (423) 843-6672.

Sincerely,

Pedro Salas
Licensing and Industry Affairs Manager

Subscribed and sworn to before me
on this 14th day of May

Peggy M. Billingsley
Notary Public

My Commission Expires October 9, 2002

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ENCLOSURE 1

TENNESSEE VALLEY AUTHORITY
SEQUOYAH NUCLEAR PLANT (SQN)
UNIT 1
DOCKET NO. 327

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE NO. 01-02
DESCRIPTION AND EVALUATION OF THE PROPOSED CHANGE

I. DESCRIPTION OF THE PROPOSED CHANGE

TVA is proposing an amendment to SQN Operating License DPR-77 for Unit 1. The proposed amendment provides clarification of SQN Unit 1 License Condition 2.C.(9)(d) and is associated with steam generator (SG) inspection criteria for identified tubes with dented intersections below 5 volts.

The SQN Unit 1 Operating License [License Condition 2.C.(9)(d)] contains TVA's SG inspection commitments that are described in TVA letters to NRC dated March 12, 1997 and March 17, 1997. TVA proposes to modify the application of the License Condition to include clarification of the inspection criteria for SG tubes with dented intersections less than 5 volts. The License Condition is modified by addition of a reference to the enclosed letter.

II. REASON FOR THE PROPOSED CHANGE

TVA's proposed change is needed to provide clarification of SG inspection strategy for less than 5-volt dented intersections on SQN Unit 1. The change is associated with TVA's commitments contained in a TVA letter to NRC dated March 12, 1997, that describes the inspection and sampling of dented intersections less than 5 volts.

Following the SQN Unit 1 SG tube inspections for the Cycle 10 refueling outage (March 2000), TVA met with NRC staff to discuss the results of the Unit 1 Cycle 10 SG inspections (reference NRC letter to TVA dated June 21, 2000). During the meeting, TVA provided clarification of its commitment (commitment contained in a March 12, 1997 letter) regarding inspection and sampling of dents less than 5 volts with a rotating pancake probe. TVA noted in the meeting that the commitment was not intended to apply to dents that were less than 2 volts. For the purpose of clarifying this with the NRC staff, TVA agreed that this commitment would be restated and clarified in a future TVA submittal.

A second meeting was held with NRC staff on April 11, 2001. During the meeting, TVA presented strategy for Unit 1 dent inspection that would define a more conservative "calling" threshold for dented intersections less than 5 volts. Based on the subjectivity associated with interpreting the test data when "calling" low voltage dented intersections, a threshold of 1 volt was established as a conservative threshold.

SQN License Condition 2.C.(9)(d) contains the TVA commitments that define SQN's SG inspection program for Unit 1. These commitments are associated with SQN's voltage based alternate repair criteria and the Unit 1 dent inspection criteria. SQN Unit 1 SGs have specific commitments associated with dent inspection criteria due to the large population of dented intersections in these SGs. A TVA letter dated March 12, 1997, is referenced in License Condition 2.C.(9)(d) and contains a commitment that describes SQN's Unit 1 Dent Sampling Plan for dents less than 5 volts. The commitment language currently does not provide a minimum voltage threshold for dent inspection less than 5 volts. Accordingly, TVA is proposing a change to SQN Unit 1 License Condition 2.C.(9)(d) to include clarification of the commitment to establish a 1 volt minimum threshold for dent inspection less than 5 volts.

III. SAFETY ANALYSIS

The purpose of the SG tube inspection and repair limits is to provide reasonable assurance that tubes accepted for continued service without plugging and repair will exhibit adequate structural and leakage integrity with appropriate allowance for error or variability and for defect growth prior to the next inservice inspection.

TVA's proposed amendment modifies the SQN Unit 1 Operating License [License Condition 2.C.(9)(d)] to clarify a TVA commitment for SG inspection criteria of dented intersections in the less than 5-volt range. TVA's commitment, under the proposed change, would provide a conservative strategy for utilizing a 1-volt "calling" threshold for inspection and sampling dented intersections.

TVA's commitment for inspecting dented intersections greater than or equal to 1 volt will continue to provide an adequate margin of safety for maintaining SG tube structural and leakage integrity with appropriate allowance for error or variability and for defect growth.

IV. NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

TVA has concluded that operation of SQN Unit 1, in accordance with the proposed change to the operating license, does not involve a significant hazards consideration. TVA's conclusion is based on its evaluation, in accordance with 10 CFR 50.91(a)(1), of the three standards set forth in 10 CFR 50.92(c).

TVA's proposed change provides clarification to a TVA commitment regarding Unit 1 steam generator (SG) inspections and the sample plan for dented intersections less than 5 volts. TVA's commitment establishes 1 volt as the "calling" threshold for dented intersections such that hot leg dented intersections greater than or equal to 1 volt receive inspection with a Plus Point probe. TVA's original commitment described in a TVA letter to NRC dated March 12, 1997, did not clearly define the minimum threshold for dented intersections. Accordingly, TVA is revising the SQN Unit 1 Operating License to reference TVA's clarification of the 1-volt threshold.

A. **The proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.**

The proposed change does not alter plant equipment, system design, or operating practices. The clarification of SQN's Unit 1 SG inspection commitment provides a conservative inspection strategy that defines 1 volt as the lower threshold. The 1-volt threshold is based on the subjectivity uncertainties associated with interpreting bobbin coil probe data to distinquish a dent below 1 volt. Given the current capability of eddy current technology, TVA's proposed change will define a reasonable criteria for tube inspection.

TVA's proposed change continues to ensure that structural and leakage integrity of SQN's Unit 1 SG tubes is maintained. Accordingly, the proposed amendment does not result in any increase in the probability or consequences of an accident previously evaluated within the SQN Final Safety Analysis Report.

B. **The proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.**

SQN limits SG tube leakage between the primary coolant system and the secondary coolant system to 150 gallons per day per SG. This leakage limit ensures that tube cracks have an adequate margin of

safety to withstand the loads imposed during normal operation and by postulated accidents. In addition, inservice inspections are performed in accordance with Regulatory Guide 1.83, Revision 1, "Inservice Inspection of Pressurized Water Reactor Steam Generator Tubes," to ensure that structural integrity of SG tubes is maintained during the plant operation cycle.

The proposed change does not modify plant equipment, system design, or operating practices. The clarification of SQN's Unit 1 SG inspection commitment provides an inspection strategy that defines a minimum "calling" threshold for dent inspection. The 1-volt threshold is an inspection strategy based on the subjectivity associated with interpreting bobbin coil probe data below 1 volt for dented intersections. TVA's proposed change will continue to provide conservative inspection criteria that maintains structural and leakage integrity of SQN's Unit 1 SG tubes.

Based on the above, the proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

C. **The proposed amendment does not involve a significant reduction in a margin of safety.**

TVA's proposed clarification of the 1-volt threshold will continue to provide a conservative inspection criteria that will ensure that SG tube structural and leakage integrity is maintained. Accordingly, the margin of safety is not reduced.

V. ENVIRONMENTAL IMPACT CONSIDERATION

The proposed change does not involve a significant hazards consideration, a significant change in the types of or significant increase in the amounts of any effluents that may be released offsite, or a significant increase in individual or cumulative occupational radiation exposure. Therefore, the proposed change meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), an environmental assessment of the proposed change is not required.

ENCLOSURE 2

TENNESSEE VALLEY AUTHORITY
SEQUOYAH PLANT (SQN)
UNIT 1

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE 01-02
MARKED PAGES

I. AFFECTED PAGE LIST

Page 5, Unit 1 Operating License

II. MARKED PAGES

Page 5, Unit 1 Operating License.

(9) Steam Generator Inspection (Section 5.3.1)

(a) Prior to March 1, 1981, TVA shall provide to the NRC the results of its tests to determine the feasibility of using a steam generator camera device.

(b) Prior to start-up after the frist refueling, TVA must install inspection ports in each steam generator if the results of the camera device inspection are not satisfactory to the NRC;

(c) Prior to start-up after the first refueling, TVA will plug Row 1 of the steam generator tubes, if required by NRC.

(d) By May 20, 1997, TVA shall establish a steam generator inspection program that is in accordance with the commitments listed in Enclosure 2 to the TVA letter to the Commission on this subject dated March 12, 1997, as modified by TVA letter dated March 17, 1997, and May ___, 2001. s

(10) Water Chemistry Control Program (Section 5.3.2)

This requirement has been deleted.

(11) Negative Pressure in the Auxiliary Building Secondary Containment Enclosure (ABSCE) (Section 6.2.3)

After the final ABSCE configuration is determined, TVA must demonstate to the satisfaction of the NRC that a negative pressure of 0.25 inches of water gauge can be maintained in the spent fuel storage area and in the esf pump room.

(12) Environmental Qualification (Section 7.2.2)

(a) No late than November 1, 1980, TVA shall submit information to show compliance with the requirement of NUREG-0588, "Interim Staff Position on Environmental Qualification of Safety-Related Elecctrical Equipment," for safety-related equipment exposed to a harsh environment. Implementation shall be in accordance with NUREG-0588 by June 30, 1982.

(b) By no later than December 1, 1980, complete and auditable records must be available and maintained at a central location which describe the environmental qualification method used for all safety-related electrical equipment in sufficient detail to document the degree of compliance with the DOR Guidelines or NUREG-0588. Thereafter, such records should be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified to document complete compliance by June 30, 1982.

ENCLOSURE 3

TENNESSEE VALLEY AUTHORITY
SEQUOYAH PLANT (SQN)
UNIT 1

PROPOSED TECHNICAL SPECIFICATION (TS) CHANGE 01-02
TYPED PAGES

TYPED PAGE

Page 5, Unit 1 Operating License

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ENCLOSURE 4

TENNESSEE VALLEY AUTHORITY
SEQUOYAH PLANT (SQN)
UNIT 1

TVA COMMITMENT CLARIFICATION

Unit 1 Dent Sampling Plan for dents less than 5 volts

TVA will sample, with rotating pancake coil, hot leg dents 1 to 5 volts up to and including the 7th tube support plate during the Unit 1 Cycle 11 refueling outage.