TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

May 25, 1982

Director of Nuclear Reactor Regulation
Attention: Ms. E. Adensam, Chief
Licensing Branch No. 4
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Ms. Adensam:

In the Matter of	)	Docket Nos. 50-327
Tennessee Valley Authority	)	50-328

In accordance with 10 CFR Part 50.90, enclosed are 40 copies of proposed revisions to the Sequoyah Nuclear Plant Operating Licenses DPR-77 (Enclosure 1) and DPR-79 (Enclosure 2). The proposed license amendments request changes in the operating license conditions regarding environmental qualification of safety-related electrical equipment (NUREG-0588) and control room design review for each unit. Each enclosure identifies the existing conditions, the proposed changes, and the basis for each change. Enclosure 1 provides the requested changes in the unit 1 operating license, DPR-77; and Enclosure 2 provides the requested changes in the unit 2 operating license, DPR-79.

In accordance with the provisions of 10 CFR Part 170, we have determined the changes to be Class II for unit 1 and Class I for unit 2. These classifications are based on the facts that the amendment is administrative in nature and that the changes apply to two identical units on the same site. The remittance fee of $1,600 is being wired to the Nuclear Regulatory Commission, Attention: Licensing Fee Management Branch.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

D S Kammer

D. S. Kammer
Nuclear Engineer

Sworn to and subscribed before me
this 25th day of May 1982

Bryant M. Lowery
Notary Public
My Commission Expires 4/8/86

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Enclosure (40)
cc: See page 2

Director of Nuclear Reactor Regulation May 25, 1982

cc: U.S. Nuclear Regulatory Commission
Region II
Attn: Mr. James P. O'Reilly, Regional Administrator
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

ENCLOSURE 1

PROPOSED CHANGES TO THE SEQUOYAH NUCLEAR PLANT UNIT 1
OPERATING LICENSE

Item (1) - Environmental Qualification of Safety-Related Electrical Equipment

Existing Conditions

2.C(12).a No later than November 1, 1980, TVA shall submit information to show compliance with the requirements of NUREG-0588, 'Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment,' for safety-related equipment exposed to a harsh environment. Implementation shall be in accordance with NUREG-0588 by June 30, 1982.

2.C(12).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.

2.C(12).c By no later than June 30, 1982, all safety-related electrical equipment in the facility shall be qualified in accordance with the provisions of: Division of Operating Reactors 'Guidelines for Evaluating Environmental Qualification of Class IE Electrical Equipment in Operating Reactors' (DOR Guidelines); or NUREG-0588, 'Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment,' December 1979. Copies of these documents are attached to the Order for Modificaton of License DPR-77 dated November 6, 1980.

Proposed Changes

2.C(12).a No later than November 1, 1980, TVA shall submit information to show compliance with the requirements of NUREG-0588, 'Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment,' for safety-related equipment exposed to a harsh environment. Implementation shall be in accordance with NUREG-0588 by the end of the second refueling outage after March 31, 1982 but not later than November 30, 1985.

2.C(12).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 the end of the second refueling outage after March 31, 1982 but no later than November 30, 1985.

2.C(12).c All safety-related electrical equipment in the facility shall be qualified in accordance with the provisions of: Division of Operating Reactors 'Guidelines for Evaluating Environmental Qualification of Class IE Electrical Equipment in Operating Reactors' (DOR Guidelines); or NUREG-0588, 'Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment,' December 1979, or the requirements of proposed regulation, 10 CFR 50.49, 'Environmental Qualification of Electrical Equipment for Nuclear Power Plants,' by the end of the second refueling outage after March 31, 1982 but no later than November 30, 1985.

Justification

In previous submittals to the NRC to comply with the requirements of NUREG-0588 and with the requirements of 2.C(10).c of the unit 2 operating license for the Sequoyah Nuclear Plant, we have indicated that we would make every reasonable effort to comply with the requirements of NUREG-0588. In the July 7-10, 1981 meeting with NRC on equipment qualification, we indicated concerns with our ability to comply with the deadline and provided examples and reasons. A summary of examples is provided in Attachment 1. These examples are typical of the inability to obtain qualified components by the current deadline.

We, therefore, recommend that the deadline be in accordance with the replacement schedule established by each utility that is reviewed and approved by the NRC but consistent with the implementation schedule provided in the proposed addition (50.49) to the Code of Federal Regulations. The schedule proposed by the new regulation 50.49 has final environmental qualification by the second refueling outage after March 31, 1982 but no later than November 30, 1985. We believe that continued operation of our Sequoyah Nuclear Plant is justified.

Item (2) - Control Room Design

Existing Condition

Prior to start-up after first refueling, TVA shall complete the detailed Control Room Design Review. As part of this review, TVA shall consider 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.

Proposed Condition

TVA shall complete the detailed control room design review in accordance with the schedule to be specified for operating reactors in NUREG-0700. As part of this review, TVA shall consider 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.

Justification

As stated in the Sequoyah SER, Supplements 2 and 5, we have taken correct actions to improve the operator effectiveness during an upset or accident condition. The NRC concluded that Sequoyah could be safely operated with these improvements. However, we were required to complete the detailed control room review on the same schedule as other licensees with operating plants. Even though NUREG-0700 was officially issued during the fall of 1981, no implementation schedule has yet been defined.

At the time the existing license condition was issued on unit 1 of our Sequoyah Nuclear Plant, this date was thought to be consistent with the expected implementation schedule for the detailed control room review, that would be included in NUREG-0700. Since this schedule has changed significantly, and in order to be consistent with our understanding of the intent to the requirement as stated in the Sequoyah SERs, we propose changing the license condition to coincide with the schedule to be imposed on other licensees of operating reactors. We believe that continued operation of the plant is justified.

ATTACHMENT 1 TO ENCLOSURE 1

Examples of Equipment Not Capable of Meeting the June 30, 1982 Deadline

1. Pressure transmitters (PT) and differential pressure transmitters (DPT), 10-50MA range: Barton appears to be on the only source for qualified instruments capable of meeting TVA's requirements. Qualification is expected in October 1981 and procurement lead time would result in delivery in later 1982. This date could be severely delayed if other utilities tax Barton's production capabilities.

2. Pressure switches, differential pressure switches and flow switches: The ASCO models may have to be totally retested to meet qualification requirements. Completion of qualification testing is not expected until February 1983. Comparable Barton instruments lack adequate seismic qualification and would require modification or further testing. Additionally, suppliers will not test to TVA's specific (extreme) environmental conditions. Procurement delivery dates cannot be expected until 1984.

3. Level switches, flow type: Magnetrol appears to be the only source for qualified instruments; however, the qualification testing is not expected until 1983 and delivery in 1984.

4. 4160/480-V transformers: Procurement of qualified replacement components will require significant lead time and delivery is expected in late 1983.

ENCLOSURE 2

PROPOSED CHANGES TO THE SEQUOYAH NUCLEAR PLANT UNIT 2
OPERATING LICENSE

Item (1) - Environmental Qualification of Safety-Related Equipment, NUREG-0588

Existing Conditions

2.C(10).a No later than June 30, 1982, TVA shall be in compliance with the requirements of NUREG-0588, 'Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment,' for safety-related equipment exposed to a harsh environment.

2.C(10).b 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. 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.

2.C(10).c Within 90 days of receipt of the equipment qualification safety evaluation, the licensee shall either (i) provide missing documentation identified in Sections 3 and 4 of the equipment qualification safety evaluation which will demonstrate compliance of the applicable equipment with NUREG-0588, or (ii) commit to corrective actions which will result in documentation of compliance of applicable equipment with NUREG-0588 no later than June 30, 1982.

Proposed Conditions

2.C(10).a TVA shall be in compliance with the requirements of NUREG-0588, 'Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment,' for safety-related equipment exposed to a harsh environment, or the requirements of the proposed regulation, 10 CFR 50.49, 'Environmental Qualification of Electrical Equipment for Nuclear Power Plants,' by the end of the second refueling outage after March 31, 1982 but no later than November 30, 1985.

2.C(10).b 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. Such records

should be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified to document complete compliance by the date required by the proposed regulation 50.49, 'Environmental Qualification of Electrical Equipment for Nuclear Power Plants.'

2.C(10).c Within 90 days of receipt of the equipment qualification safety evaluation, the licensee shall either (i) provide missing documentation identified in Sections 3 and 4 of the equipment qualification safety evaluation which will demonstrate compliance of the applicable equipment with NUREG-0588, or (ii) commit to corrective actions which will result in documentation of compliance of applicable equipment with NUREG-0588 by the date required the proposed regulation 50.49, 'Environmental Qualification of Electrical Equipment for Nuclear Power Plants.'

Justification

Same as for unit 1.

Item (2) - Control Room Design Review

Existing Condition

Prior to startup after first refueling of unit 1 or unit 2, whichever occurs first, TVA shall complete the detailed Control Room Design Review. As part of this review, TVA shall consider 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.

Proposed Condition

TVA shall complete the detailed control room design review in accordance with the schedule to be specified for operating reactors in NUREG-0700. As part of this review, TVA shall consider 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.

Justification

Same as for unit 1.