

July 6, 1988

Docket No. 50-327

Mr. S. A. White
Senior Vice President, Nuclear Power
Tennessee Valley Authority
6N 38A Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Dear Mr. White:

SUBJECT: SECONDARY WATER CHEMISTRY LICENSE CONDITION DELETION (TACR00134)

Re: Sequoyah Nuclear Plant, Unit 1

The Commission has issued the enclosed Amendment No. 75 to Facility Operating License No. DPR-77 for the Sequoyah Nuclear Plant, Unit 1. This amendment is in response to your application dated May 15, 1987.

The amendment deletes the requirements of license condition 2.C.(10), Water Chemistry Control Program. This change acknowledges that the requirements in the license condition have been accomplished and that the plant secondary water chemistry program should be consistent with the Steam Generator Owner's Group secondary water chemistry guidelines to minimize steam generator tube degradation.

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

Sincerely,

Original Signed by

Suzanne Black, Assistant Director
for Projects
TVA Projects Division
Office of Special Projects

Enclosures:

- 1. Amendment No. 75 to License No. DPR-77
- 2. Safety Evaluation

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Docket No. 50-327

Mr. S. A. White
Manager of Nuclear Power
Tennessee Valley Authority
6N 38A Lookout Place
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BDLiaw
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OGC-ROCKVILLE
[Signature]

TVA:AD/P
SBlack
/ /88



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

July 6, 1988

Docket No. 50-327

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Senior Vice President, Nuclear Power
Tennessee Valley Authority
6N 38A Lookout Place
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Sincerely,

A handwritten signature in cursive script that reads "Suzanne Black".

Suzanne Black, Assistant Director
for Projects
TVA Projects Division
Office of Special Projects

Enclosures:

1. Amendment No. 75 to License No. DPR-77
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. S. A. White
Tennessee Valley Authority

Sequoyah Nuclear Plant

cc:
General Counsel
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E11 B33
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Resident Inspector/Sequoyah NP
c/o U.S. Nuclear Regulatory Commission
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Mr. M. R. Harding
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Dr. Henry Myers, Science Advisor
Committee on Interior
and Insular Affairs
U.S. House of Representatives
Washington, D.C. 20515

Mr. D. L. Williams
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W10 B85
Knoxville, Tennessee 37902

County Judge
Hamilton County Courthouse
Chattanooga, Tennessee 37402



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

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-327

SEQUOYAH NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 75
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 May 15, 1987, 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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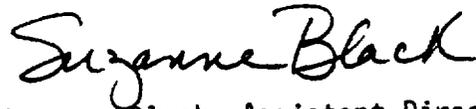
2. Accordingly, the license is amended by changes as indicated in the attachment to this license amendment and paragraph 2.C.(10) of Facility Operating License No. DPR-77 is hereby amended to read as follows:

(10) Water Chemistry Control Program (Section 5.3.2)

This requirement has been deleted.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Suzanne Black, Assistant Director
for Projects
TVA Projects Division
Office of Special Projects

Attachment:

Changes to the Paragraph 2.C.(10)

Date of Issuance: July 6, 1988

ATTACHMENT TO LICENSE AMENDMENT NO.75

FACILITY OPERATING LICENSE NO. DPR-77

DOCKET NO. 50-327

Revise the Facility Operating License by removing the page identified below and inserting the enclosed page. The revised page is identified by the captioned amendment number and contain marginal lines indicating the area of change.

REMOVE

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INSERT

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(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 first 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.

(10) Water Chemistry Control Program (Section 5.3.2)

This requirement has been deleted.

Amendment No. 75

Dated: July 6, 1988

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

After the final ABSCE configuration is determined, TVA must demonstrate 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 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.
- (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 DCR 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.



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

SAFETY EVALUATION BY THE OFFICE OF SPECIAL PROJECTS

SUPPORTING AMENDMENT NO. 75 TO FACILITY OPERATING LICENSE NO. DPR-77

TENNESSEE VALLEY AUTHORITY

SEQUOYAH NUCLEAR PLANT, UNIT 1

DOCKET NO. 50-327

1.0 INTRODUCTION

In its letter dated May 15, 1987, the Tennessee Valley Authority (TVA) requested that the requirements of license condition 2.C.(10), Water Chemistry Control Program, be deleted from the license for Sequoyah Unit 1. These requirements were discussed in Section 5.3.2 of Supplement No. 2 dated August 1980 to the Safety Evaluation Report related to the operation of the unit. The license condition was an alternate to Branch Technical Position MTEB 5-3 and incorporated staff requirements for corrective actions by TVA for condenser leaks. It constituted an acceptable basis for satisfying the pertinent sections of the requirements of General Design Criteria 14 of Appendix A to 10 CFR Part 50 with respect to interactions between condenser in-leakage and degradation of steam generation tubes.

The license condition 2.C.(10) states the following:

Prior to exceeding five percent power, TVA shall incorporate the following provisions into the secondary water chemistry control program:

1. The Hotwell pump discharge sample point along with continuous cation conductivity monitoring will be used as the control point for confirming a condenser leak and for initiating corrective action to locate and repair the leak
2. Impurity-time operating limits for feedwater should be incorporated into the water chemistry program. The limits use feedwater pH and cation conductivity impurity-time limit values the same as used for steam generator blowdown limits.

2.0 EVALUATION

In its letter dated May 15, 1987, TVA stated that license condition 2.C.(10) required certain provisions be incorporated into the Sequoyah secondary water chemistry program. These were accomplished as discussed in TVA letter dated August 13, 1980. However, TVA stated that the site program now does not follow the action levels identical to those outlined in that 1980 letter. As stated in Section 10.3.5.3, Chemistry Control, of the Sequoyah Final Safety Analysis Report, the impurity-time operating limits and action levels are consistent

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with the Steam Generator Owner's Group (SGOG) Electric Power Research Institute (EPRI) Report, "PWR Secondary Water Chemistry Guidelines", Revision 1, June 1984 and will incorporate "subsequent revisions as they are deemed appropriate." TVA stated by phone on June 24, 1988 that it is presently reviewing revision 2 of the EPRI guidelines. These limits and action levels are to minimize steam generator tube degradation.

TVA stated that the SGOG guidelines were prepared by the Steam Generator Owner's Group Water Chemistry Guidelines Committee and represent a consensus opinion of a significant portion of the industry for state-of-the-art secondary water chemistry control. It further stated that Technical Specification (TS) 6.8.5.C requires a program for Unit 1 for monitoring secondary water chemistry to inhibit steam generator tube degradation. The Sequoyah secondary limits and associated action levels are based on the SGOG guidelines and are incorporated into plant procedures. These procedures, as an integral part of the Sequoyah secondary water chemistry program, help ensure that steam generator corrosion and fouling have been effectively controlled. Therefore, because these limits and action levels are in conflict with license condition 2.C.(10), TVA concluded that the license condition should be deleted.

The staff has reviewed the letter from TVA dated August 13, 1980, and agrees that the letter shows that TVA met the requirements of the license condition. Since then, TVA has revised the Sequoyah secondary water chemistry program.

In NRC Inspection 84-16, the operational history of the Sequoyah secondary water system and the efforts taken to maximize the effectiveness of this system were reviewed. The inspection was conducted on July 9-13, 1984, and the inspection report was issued on August 7, 1984. Section 5.b (Page 8) of the report discussed the scope and adequacy of TVA's secondary water chemistry program. The report stated that TVA had developed a program that implemented the requirements of TS 6.8.5.C, incorporated the guidelines of the SGOG and the EPRI, and took into consideration the nuclear steam supply system (NSSS) vendor's recommendations. The staff concluded in the report that TVA had developed an effective and acceptable secondary water chemistry program.

Based on the above, the staff concludes that the proposed deletion of license condition 2.C.(10) is acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

These amendments involve a change to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The 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 these amendments involve no significant hazards consideration and there has been no public comment on such finding. 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 nor environmental assessment need be prepared in connection with the issuance of these amendments.

4.0 CONCLUSION

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of these amendments will not be inimical to the common defense and security nor to the health and safety of the public.

Principal Contributor: J. Donohew

Dated: July 6, 1988