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

December 27, 2000

Mr. J. A. Scalice
Chief Nuclear Officer and
Executive Vice President
Tennessee Valley Authority
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

SUBJECT: SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2 - ISSUANCE OF CORRECTED PAGES FOR AMENDMENT NOS. 265 AND 256 REGARDING BORON CREDIT IN SPENT FUEL POOL (TAC NOS. MA9884 AND MA9885) (TSC 99-17)

Dear Mr. Scalice:

Following the issuance of Amendment No. 265 to Facility Operating License No. DPR-77 and Amendment No. 256 to Facility Operating License No. DPR-79 for the Sequoyah Nuclear Plant (SQN), Units 1 and 2, respectively, your Sequoyah Licensing staff noted minor editorial errors on three pages in each amendment. Bases pages B 3/4 7-12 and B 3/4 7-15 for each unit listed references but the references were not numbered as they should have been. Technical Specification page 5-5a had an inadvertent space in the middle of a sentence. This letter forwards corrected pages for insertion into the amendments. These pages have already been telefaxed to Mr. Zachary Kitts at the Sequoyah site. I apologize for any inconvenience.

Sincerely,

Ronald W. Hernan

Ronald W. Hernan, Senior Project Manager, Section 2
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-327 and 50-328

Enclosures: Corrected amendment pages

cc w/enclosures: See next page

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PLANT SYSTEMS

BASES (continued)

REFERENCES

1. Stanley E. Turner (Holtec International), "Criticality Safety Analyses of Sequoyah Spent Fuel Racks with Alternative Arrangements," HI-992349

2. B. K. Grimes (NRC GL78011), "OT Position for Review and Acceptance of Spent Fuel Storage and Handling Applications", April 14, 1978

3. L. Kopp, "Guidance On The Regulatory Requirements For Criticality Analysis Of Fuel Storage At Light-Water Reactor Power Plants", August 19, 1998

4 UFSAR, Section 4.3.2.7, "Critically of Fuel Assemblies"

5. Double contingency principle of ANSI N16.1-1975, as specified in the April 14, 1978 NRC letter (Section 1.2) and implied in the proposed revision to Regulatory Guide 1.13 (Section 1.4, Appendix A).

6. K. K. Niyogi (Holtec International), "Boron Dilution Analysis," HI-992302

7. FSAR, Section 15.4.5

8. NRC letter to TVA dated August 1, 1990, " Increase Fuel Enrichment to 5.0 Weight Percent (TAC Nos. 76074, 76075, 76774, 76775) (TS 90-12) - Sequoyah Nuclear Plant, Units 1 and 2"

PLANT SYSTEMS

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PLANT SYSTEMS

BASES (continued)

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1. NRC letter to TVA dated April 28, 1993, "Issuance of Amendments (TAC Nos. M83068 and M83069)"

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3. FSAR, Section 15.4.5

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PLANT SYSTEMS

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5.6 FUEL STORAGE

2. Region 2 is designed to accommodate fuel of 4.95±0.05 wt% U-235 initial enrichment burned to at least 30.27 MWD/KgU (assembly average), or fuel of other enrichment with a burnup yielding an equivalent reactivity in the fuel racks. The minimum required assembly average burnup in MWD/KgU and cooling time is given by the equations in Table 5.6-3 in terms of E, where E is the initial enrichment in the axial zone of highest enrichment (wt% U-235). The minimum required burnups are illustrated in Figure 5.6-3 in terms of the initial enrichment and cooling time.

Restrictions in Region 2

The following restrictions apply to the storage of spent fuel in the Region 2 cells:

1) The spent fuel shall conform to the minimum burnup requirements defined by the equations in Table 5.6-3. Linear interpolation between cooling times may be made if desired.

2) For the interface with Region 1 storage cells, fresh fuel in Region 1 shall not be stored adjacent to spent fuel assemblies in the Region 2 storage cells.

3. Region 3 is designed to accommodate fuel of 4.95±0.05 wt% U-235 initial enrichment (or fuel assemblies of any lower reactivity) in a 2-out-of-4 checkerboard arrangement with water-filled cells. The water-filled cells shall not contain any components bearing any fissile material, but may accommodate miscellaneous items or equipment.

Restrictions in Region 3

1) For the interface between Region 1 and Region 3 storage regions, fresh fuel assemblies shall not be stored adjacent to each other.

2) If miscellaneous items or equipment are stored in the water cells of Region 3, the total volume of the miscellaneous items shall be no more than 75% of the storage cell volume.

3) No fuel rods, assemblies, or items containing fissile material shall be stored in the water cells of Region 3.

An empty cell is less reactive than any cell containing fuel and therefore may be used as a Region 1, Region 2, or Region 3 cell in any arrangement.

d. Region 2 array described above may be used in the 15 x 15 storage rack module in the cask loading area of the cask pit.

e. A nominal concentration of 2000 ppm boron in the pool water. This concentration of soluble boron provides a margin sufficient to allow timely detection of a boron dilution accident and corrective action before the minimum concentration (700 ppm) required to protect against the most severe postulated fuel handling accident or before the minimum concentration (300 ppm) required to maintain the storage configuration design basis (k_{eff} less than 0.95) is reached.

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Restrictions in Region 2

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3. Region 3 is designed to accommodate fuel of 4.95±0.05 wt% U-235 initial enrichment (or fuel assemblies of any lower reactivity) in a 2-out-of-4 checkerboard arrangement with water-filled cells. The water-filled cells shall not contain any components bearing any fissile material, but may accommodate miscellaneous items or equipment.

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SEQUOYAH NUCLEAR PLANT

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