Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37379

April 21, 2000

10 CFR 2.790

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

Gentlemen:

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

SEQUOYAH NUCLEAR PLANT (SQN) - HOLTEC INTERNATIONAL TOPICAL REPORTS

This letter is to request NRC review of two topical reports which support SQN's long-term spent fuel storage program. As discussed with NRC during a June 29, 1999 presentation, this action is being taken as a part of our overall initiative to ensure adequate future spent fuel storage capacity at SQN.

Enclosure 1 provides the Criticality Safety Analysis Topical Report (HI-992349) and Enclosure 2 provides the Boron Dilution Analysis Topical Report (HI-992302). These reports are provided in advance of a SQN technical specification (TS) change request for soluble boron credit.

The criticality safety analysis demonstrates that, for the postulated fuel misplacement accident with the most severe reactivity effect, a soluble boron concentration of 700 parts per million (ppm) is adequate to ensure criticality safety of the fuel storage system. The Sequoyah spent fuel storage pool normally contains 2000 ppm soluble boron which is more than adequate to ensure the continued criticality safety of the storage pool. With 2000 ppm soluble boron even the incredible condition of completely filling the pool with fresh fuel of the maximum reactivity would not result in criticality.

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The boron dilution analysis identifies the potential boron dilution sources and dilution events, the instrumentation available for detection of dilution, and the operating and administrative procedures available for the detection and mitigation of dilution. The analysis also determines the dilution rates, the time to reach any alarm set points, and the time to reach the minimum boron concentration limit established by criticality analysis.

As previously stated, this action is being taken as part of our long-term spent fuel storage program. NRC approval of the enclosed topical reports and the pending TS change is requested prior to March 1, 2001, to facilitate decisions which must be made concerning further modification to the spent fuel pool. These interim actions are being taken while our long-term Independent Spent Fuel Storage Installation plan is being implemented.

The request for soluble boron credit in the SQN spent fuel storage pool is consistent with those previously approved by NRC for other stations such as the South Texas Project, Units 1 and 2 (approved on March 3, 1999) and the Byron and Braidwood Stations (approved on December 4, 1997).

If you have any questions, please call me at (423) 843-7170 or Jim Smith at (423) 843-6672.

Pedro Salas
Licensing and Industry Affairs Manager

Enclosures
cc: See page 3

Enclosures
cc (Enclosures):

Mr. R. W. Hernan, Project Manager
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852-2739

NRC Resident Inspector (w/o Enclosures)
Sequoyah Nuclear Plant
2600 Igou Ferry Road
Soddy-Daisy, Tennessee 37379-3624

Regional Administrator (w/o Enclosures)
U.S. Nuclear Regulatory Commission
Region II
Atlanta Federal Center
61 Forsyth St., SW, Suite 23T85
Atlanta, Georgia 30303-3415