

November 2, 1994

Mr. Oliver D. Kingsley, Jr.  
President, TVA Nuclear and  
Chief Nuclear Officer  
Tennessee Valley Authority  
6A Lookout Place  
1101 Market Street  
Chattanooga, TN 37402-2801

SUBJECT: CORRECTION TO AMENDMENT NO. 189 (TAC NO. M90318) (TS 94-14)

Dear Mr. Kingsley:

By letter dated October 20, 1994, the Commission issued Amendment No. 189 to Facility Operating License No. DPR-77 for the Sequoyah Nuclear Plant, Unit 1. The amendment was in response to your application dated September 8, 1994.

The amendment incorporated clarifications regarding the evaluation of steam generator tube defects by separating the portion of the steam generator tube starting at the end of the tube up to the start of the tube-to-tubesheet weld from the remainder of the tube for the purposes of sample selection and repair when defects are found in this section of a steam generator tube.

Following issuance, it was determined that existing information at the bottom of Page B 3/4 4-3 was inadvertently deleted when the amendment change was added to the page. A corrected page is attached. We regret any inconvenience this may have caused.

Sincerely,

Original signed by

David E. LaBarge, Sr. Project Manager  
Project Directorate II-4  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket No. 50-327

Enclosure: Corrected page B 3/4 4-3

cc w/enclosure: See next page

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## SEQUOYAH NUCLEAR PLANT

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## REACTOR COOLANT SYSTEM

### BASES

The plant is expected to be operated in a manner such that the secondary coolant will be maintained within those chemistry limits found to result in negligible corrosion of the steam generator tubes. If the secondary coolant chemistry is not maintained within these limits, localized corrosion may likely result in stress corrosion cracking. The extent of cracking during plant operation would be limited by the limitation of steam generator tube leakage between the primary coolant system and the secondary coolant system (primary-to-secondary leakage = 500 gallons per day per steam generator). Cracks having a primary-to-secondary leakage less than this limit during operation will have an adequate margin of safety to withstand the loads imposed during normal operation and by postulated accidents. Operating plants have demonstrated that primary-to-secondary leakage of 500 gallons per day per steam generator can readily be detected by radiation monitors of steam generator blowdown. Leakage in excess of this limit will require plant shutdown and an unscheduled inspection, during which the leaking tubes will be located and plugged.

Wastage-type defects are unlikely with proper chemistry treatment of the secondary coolant. However, even if a defect should develop in service, it will be found during scheduled inservice steam generator tube examinations. Plugging will be required for all tubes with imperfections exceeding the plugging limit of 40% of the tube nominal wall thickness. The portion of the tube that the plugging limit does not apply to is the portion of the tube that is not within the RCS pressure boundary (tube end up to the start of the tube-to-tubesheet weld). The tube end to tube-to-tubesheet weld portion of the tube does not affect structural integrity of the steam generator tubes and therefore indications found in this portion of the tube will be excluded from the Result and Action Required for tube inspections. It is expected that any indications that extend from this region will be detected during the scheduled tube inspections. Steam generator tube inspections of operating plants have demonstrated the capability to reliably detect degradation that has penetrated 20% of the original tube wall thickness.

Whenever the results of any steam generator tubing inservice inspection fall into Category C-3, these results will be promptly reported to the Commission pursuant to Specification 6.6.1 prior to resumption of plant operation. Such cases will be considered by the Commission on a case-by-case basis and may result in a requirement for analysis, laboratory examinations, tests, additional eddy-current inspection, and revision of the Technical Specifications, if necessary.

#### 3/4.4.6 REACTOR COOLANT SYSTEM LEAKAGE

##### 3/4.4.6.1 LEAKAGE DETECTION SYSTEMS

The RCS leakage detection systems required by this specification are provided to monitor and detect leakage from the Reactor Coolant Pressure Boundary. These detection systems are consistent with the recommendations of Regulatory Guide 1.45, "Reactor Coolant Pressure Boundary Leakage Detection Systems," May 1973.