March 14, 2006

Mr. Karl W. Singer
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 - REQUEST FOR ADDITIONAL INFORMATION REGARDING RELIEF REQUESTS FOR THE INSERVICE TEST PROGRAM FOR THE THIRD 10-YEAR INTERVAL (TAC NOS. MC9537 THROUGH MC9554)

Dear Mr. Singer:

By letter dated January 10, 2006, the Tennessee Valley Authority submitted requests for relief for the inservice test program for the third 10-year interval at the Sequoyah Nuclear Plant, Units 1 and 2. The submittal included six requests for relief for the pump test program (RP-1 through RP-6) and three requests for relief for the valve test program (RV-1 through RV-3).

In order to complete our review, we ask that you respond to the enclosed request for additional information (RAI). Based on discussions with your staff, it is our understanding that you plan to respond to the enclosed RAI by approximately April 10, 2006.

If you have any questions about this material, please contact me at 301-415-1364.

Sincerely,

/RA/

Douglas V. Pickett, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-327 and 50-328

Enclosure: Request for Additional Information

cc w/enclosure: See next page

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Mr. Karl W. Singer
Tennessee Valley Authority

SEQUOYAH NUCLEAR PLANT

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REQUEST FOR ADDITIONAL INFORMATION

SEQUOYAH NUCLEAR PLANT, UNITS 1 AND 2

RELIEF REQUESTS FOR THE INSERVICE TEST PROGRAM

THIRD 10-YEAR INTERVAL

DOCKET NOS. 50-327, 50-328

1. Pump Relief Request RP-01

RAI RP-01-01

ISTB-3550 requires that when measuring flow rate, a rate or quantity meter be installed in the pump test circuit. Please address why relief was not requested from the requirements of ISTB-3500.

RAI RP-01-02

Please address the effect of potential flow degradation due to spray nozzle fouling on the quarterly test acceptance criteria and the comprehensive pump test acceptance criteria.

RAI RP-01-03

The relief request states that the physical configuration of this piping is such that no portion of the piping meets the requirements for adequate installation of a permanent flow measuring device. Please provide additional information with regard to the feasibility of installing flow instrumentation or using temporary flow instrumentation (i.e., modifications required, detailed description of piping runs with respect to installation of temporary flow instrumentation). Please discuss in greater detail the feasibility of installing temporary flow instrumentation during the comprehensive pump test.

2. Pump Relief Request RP-02

RAI RP-02-01

ISTB-5121 requires that the parameters shown in Table ISTB-3000-1 be determined and recorded. Flow rate is one of the required parameters in Table ISTB-3000-1 for Group A pumps. Table ISTB-5100-1 identifies the acceptance criteria associated with pump testing. Please address why relief was requested from the requirements of Table ISTB-5100-1 and not from ISTB-5121 or Table ISTB-3000-1.

Enclosure

RAI RP-02-02

The submittal states that the relief request meets the intent of Position 9 in Generic Letter 89-04. Position 9 states in cases where flow can only be established through a non-instrumented minimum-flow path during quarterly testing and a path exists at cold shutdowns or refueling outages to perform a test of the pump under full or substantial flow conditions, the staff has determined that the increased interval is an acceptable alternative to the Code requirements. Please address why testing at substantial flow should not be performed during cold shutdown conditions.

3. Pump Relief Request RP-03

RAI RP-03-01

The Basis for Relief implies that relief is requested for the quarterly pump test based on the instrument accuracies identified in the Basis for Relief. Please verify that the relief is associated with the quarterly pump test only.

4. Pump Relief Request RP-04

RAI RP-04-01

The licensee is requesting generic relief for all pumps identified as smooth running pumps. As a general rule, the staff has not authorized on a generic basis the establishment of minimum vibration reference values. If a licensee intends to submit alternative requests to use minimum reference values, the request should be developed specifically for each pump, address the vibration levels experienced by each pump, include justification addressing the vibration levels experienced by each pump, and include justification addressing how the current IST methodology will detect pump degradation. Please provide the information requested.

RAI RP-04-02

Please describe the vibration monitoring and analysis performed as part of the Predictive Maintenance Program.

5. Pump Relief Request RP-05

RAI RP-05-01

10 CFR 50.55(a)(3)(i) allows the NRC to authorize alternatives if “the proposed alternative would provide an acceptable level of quality and safety.” NUREG 1482, Revision 1 identifies that the NRC will normally approve an alternative pursuant to this provision only if the licensee proposes a method of testing that is equivalent to, or an improvement of the method specified by the code, or if testing will comply or is consistent with later Code editions approved by the NRC in 10 CFR 50.55a(b). It is not apparent that the alternative method of test is equivalent to or an improvement of the method specified by the code. If the reference value is set at 90% of the calibrated range of the instrument, it is not clear if high flow in excess of the instrument range will

be detected so that corrective action will be initiated at greater than 110% of the reference value, as required by Table ISTB-5100-1 of the OM Code. The licensee is requested to clarify if the digital instrument is capable of detecting high flow in excess of 100% of the instrument range. Specifically, clarify if the digital instrument has a high flow alarm or cutoff so that flow in excess of 100% will be detected. If not, explain how high flow is detected so that appropriate corrective action required by Table ISTB-3000-1 can be taken.

6. Pump Relief Request RP-06

RAI RP-06-01

Please confirm that the proposed alternative only applies to quarterly group A pump testing activities and that the frequency response range of the vibration measuring transducers and their readout system shall be from one-third rotational speed to at least 1000 Hz for preservice and comprehensive pump tests.