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

October 3, 1994

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

Gentlemen:

In the Matter of ) Docket No. 50-327
Tennessee Valley Authority )

SEQUOYAH NUCLEAR PLANT (SQN) - REQUEST FOR DISCRETIONARY ENFORCEMENT FOR UNIT 1 TECHNICAL SPECIFICATION (TS) 3.8.2.1, ACTION b, FOR VITAL INVERTER 2-I

This letter serves to document the basis for TVA's verbal request on October 2, 1994, for discretionary enforcement for Unit 1 TS 3.8.2.1, Action b, for Vital Inverter 2-I.

During maintenance on Vital Inverter 2-I, problems were encountered with the alternating-current output breaker and a subsequent replacement breaker. As a result, the 24-hour allowed outage time provided by TS 3.8.2.1, Action b, was anticipated to be exceeded by approximately 12 hours. A review of the Unit 1 and common loads potentially affected by the out-of-service 2-I vital inverter indicates that there is no safety consequences to Unit 1 operation (see enclosure for additional details). This request has been PORC (Plant Operations Review Committee) approved.

In order to allow adequate time to complete the installation and testing of Vital Inverter 2-I, 36 hours has been requested in addition to the 24 hours provided by TS 3.8.2.1. Without the additional time, Unit 1 would have begun a shutdown at 0641 Eastern daylight time on October 2, 1994.

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Please direct questions concerning this issue to J. D. Smith at (615) 843-6672.

Sincerely,

O. J. Zeringue
Acting Site Vice President

Enclosure
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ENCLOSURE

Vital Inverter 2-I
Discretionary Enforcement for Technical Specification (TS) 3.8.2.1

Background

During a return to service following routine maintenance on Vital Inverter 2-I, the 225-amp, molded case, alternating-current (ac) output breaker tripped open and then failed to close (note that while it is labeled as an output breaker, the actual components consist of a switch inline with two fuses to protect inverter circuitry). The suspected cause for the failure to close is failure within the operator mechanism. The available onsite replacement breaker subsequently failed during preinstallation testing. A replacement breaker was obtained from Watts Bar Nuclear Plant. The estimated time to replace the breaker and complete the postmaintenance test was 1800 Eastern daylight time (EDT) on October 2, 1994. TS 3.8.2.1, Action b, was entered at 0641 EDT on October 1. This action requires the vital inverter to be returned to service within 24 hours or be in HOT STANDBY within the following 6 hours. Before the failure of the ac output breaker to close, a direct current input breaker was also replaced. The new dc input breaker's auxiliary contacts were not wired the same as the old breaker. Troubleshooting of this problem delayed the inverter return to service by four to five hours. The combination of breaker problems will result in the outage time exceeding the TS allowable.

TS Compliance

TS 3.8.2.1, Action b, allows a vital inverter to be inoperable for up to 24 hours before proceeding to a shutdown condition. The 24-hour period expired at 0641 EDT on October 2. Final postmaintenance testing was estimated to be completed at approximately 1800 EDT on October 2. To allow for adequate time to complete additional inspection and testing of Vital Inverter 2-I, 36 hours was requested in addition to the 24 hours provided by TS 3.8.2.1, to prevent unit shutdown.

Safety Consequences

The affected vital inverter serves the 120-volt (V) ac vital Instrument Power Board (IPB) 2-I. The 2-I IPB was energized to the alternate feed when the 2-I vital inverter was removed from service. The alternate feed is not considered a qualified source only because power is interrupted while the electrical boards are being loaded on the diesel generators in the event of loss of ac.

TVA has reviewed the loads served by the 120-V ac vital IPB 2-I and has identified no components that could impact Unit 1 operation. Although initial reviews identified some components associated with systems common to both units (e.g., essential raw cooling water and component cooling system), further review shows that the specific components will only affect Unit 2 operation given the current plant configuration.

In addition, a nonqualified output breaker has been installed to allow the inverter to remain warm during the extended outage. Should a loss of ac event occur, Operations will close the ac output breaker for Vital Inverter 2-I.

The additional allowed outage time to TS 3.8.2.1 has been determined to be of no safety significance. In addition, the risk associated with shutting Unit 1 down is judged to be greater than the risk associated with the additional unavailability of Vital Inverter 2-I . These risks include the power system transfer associated with unit shutdown and the additional management challenges associated with shutting the unit down.

Accordingly, the discretionary enforcement will not result in a significant increase in the probability or consequences of a previously evaluated accident, will not create the possibility of a new accident, and will not result in a significant reduction in the margin of safety. Also, the action does not involve an unreviewed environmental question because it does not increase any adverse environmental impacts, change effluents or power levels, or result in unreviewed environmental matters.

RHS:JDS:PMB
Enclosure
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