

TENNESSEE VALLEY AUTHORITY

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AUG 23 1988

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) - 10 CFR 50.62 DESIGN CHANGES

- References:
1. Letter from TVA to B. J. Youngblood, NRC, dated February 17, 1987, "Sequoyah Nuclear Plant - 10 CFR 50.62 - Plant-Specific Details"
 2. Letter from TVA to NRC dated July 6, 1988, "Sequoyah Nuclear Plant (SQN) - 10 CFR 50.62 - Schedule For Compliance"
 3. Letter from C. E. Rossi, NRC, to L. D. Butterfield, ATWS Subcommittee, dated July 7, 1986, "Acceptance for Referencing of Licensing Topical Report"

TVA previously provided NRC with plant-specific details regarding compliance with 10 CFR 50.62 (reference 1). The schedule for compliance with 10 CFR 50.62 was provided in reference 2. The plant-specific design information was discussed with NRC in a telephone conference call held in May of this year. NRC requested additional information to complete the review of the SQN design. Enclosure 1 contains the additional information requested by NRC for all items except the qualification of safety-related to non-safety-related interfaces.

NRC requested that TVA provide identification of all class 1E to non-class 1E interfaces from the sensor outputs to the final actuation devices. Furthermore, NRC requested that TVA identify the specific methods used for isolation in the anticipated transient without scram mitigation system actuation circuits (AMSAC) design and to establish that these isolators conform to the requirements of isolation devices as specified in appendix A of reference 3. However, because of extensive contract file research and coordination with vendors required to adequately address this item, TVA will supply this information to NRC by September 30, 1988.

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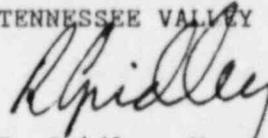
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Summary statements of commitments contained in this submittal are provided in enclosure 2. Please direct questions concerning this issue to B. A. Kimsey at (615) 870-6847.

Very truly yours,

TENNESSEE VALLEY AUTHORITY



R. Gridley, Manager
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Enclosures

cc (Enclosures):

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ENCLOSURE 1

10 CFR 50.62 DESIGN CHANGES

1. Logic power supplies - The AMSAC design will be revised to provide a logic power supply that is independent of reactor protection system (RPS) power. The power supply will be derived from an uninterruptible non-class 1E source.
2. Operating bypass - The C-20 permissive will have no interface with the RPS. The C-20 setpoint of 360 seconds and associated time delay specified in WCAP-10858P-A, revision 1, will be used. It will be armed at 40 percent of nominal power and above (in accordance with revision 1 of WCAP-10858P-A) rather than 70 percent as specified in revision 0 of WCAP-10858P-A.
3. Means for bypassing - Whereas the AMSAC design employs the use of maintenance bypass test switches, it will not be necessary to lift leads, pull fuses, trip breakers, or physically block relays to achieve required maintenance. Maintenance and testing will be accomplished utilizing permanently mounted handswitches.
4. Electrical independence - This item requires identification of all class 1E to non-class 1E interfaces from sensor outputs to final actuation devices. The specific methods for isolation must be identified, and conformance to appendix A of the NRC safety evaluation report (SER) (reference 2) established.

Note: Because of extensive contract file research and vendor coordination required to address this item, TVA's input will be provided to NRC September 30, 1988.

5. Safety-related interface - Electrical interfaces will be reviewed to identify all class 1E to non-class 1E interfaces. The class 1E to non-class 1E isolators will be reviewed to verify their qualification according to AMSAC SER requirements.
6. Testability at power - Sensor to output testing will be required to be performed after installation and every refueling outage. The AMSAC control circuitry will be tested up to and including the associated actuation relays. Existing test procedures will be used to test associated turbine trip circuits and auxiliary feedwater start circuits.
7. Loop accuracy calculations will be prepared for determination of required AMSAC setpoints. This documentation will establish any calibration frequency requirements of less than 18 months.

ENCLOSURE 2

COMMITMENT LIST

1. TVA will revise its AMSAC design to provide a logic power supply that is independent of the RPS. The power supply will be revised to be from an uninterruptible non-class 1E source.
2. TVA will identify all class 1E to non-class 1E interfaces from the sensor outputs to the final actuation devices in the SQN AMSAC design. TVA will also identify the specific methods used for providing isolation between the class 1E and non-class 1E interfaces and verify that these isolation devices conform to the requirements provided in appendix A of the NRC SER regarding the W AMSAC generic design package. This information will be provided to NRC by September 30, 1988.