

TENNESSEE VALLEY AUTHORITY

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FEB 16 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) UNITS 1 AND 2 - NRC INSPECTION REPORT  
NOS. 50-327, -328/87-65 - RESPONSE TO VIOLATION NOS. 50-327, -328/87-65-01,  
-02, -03, AND UNRESOLVED ITEMS (URIs) 50-327, -328/87-65-04

Enclosed is our response to Kenneth P. Barr's January 14, 1988 letter to  
S. A. White that transmitted the subject Notice of Violation. Enclosures 1,  
2, and 3 provide our response to the Notice of Violation. No commitments are  
made herein.

In the matter of URI 50-327/87-65-04 and -328/87-65-04, where NRC requests  
additional information concerning the apparent interference problem between  
testing and maintenance activities, TVA has revised Administrative Instruction  
(AI) 47, "Conduct of Testing," to address this problem and prevent  
interference by: (1) testing activities now have a test director assuming  
responsibility for operations communication and test status, and (2) a test  
coordinator is presently handling planning of test activities for the Daily  
Work List (DWL) to ensure no interference exists. The DWL is an approved list  
of workable items that ensures the planning process is performed before an  
item is worked.

During the exit, TVA committed to revise the Abnormal Operating Instruction  
(AOI) 27, "Control Room Inaccessibility," to reflect regulatory guides 1.6.8.2  
and 1.6.8. This commitment was fulfilled in revision No. 8 (dated  
November 7, 1987) to AOI-27.

If you have any questions, please telephone M. R. Harding at 615/870-6422.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

*R. Gridley*  
R. Gridley, Director  
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Enclosures  
cc: See page 2

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U.S. Nuclear Regulatory Commission

FEB 16 1988

cc (Enclosures):

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ENCLOSURE 1

Violation 50-327, -328/87-65-01

"10 CFR 50, Appendix B, Criterion XVI, as implemented by TVA's QA Topical Report, TVA-TR-75-1A, Rev. 9, paragraph 17.2.16, requires that significant conditions adverse to quality be promptly identified and corrected. Additionally, the cause of the condition should be determined and corrective measures to preclude repetition must be identified.

10 CFR 50.71.(e).(4) requires that revisions to the FSAR be filed no less frequently than annually and shall reflect all changes to the plant up to a maximum of 6 months prior to the date of filing.

- a. Contrary to the above, CAR 86-04-021 (which documented the fact that TVA had not established adequate controls to ensure the requirements of 10 CFR 50.71 were satisfied) did not ensure that adequate corrective measures were established to prevent recurrence, in that, the transitional design change program implemented by AI-19 and SQEP-13 did not ensure that FSAR updates reflect changes to the facility within 6 months of filing.
- b. Contrary to the corrective action requirements above, resolution of significant test deficiency DN-6 of Post Modification Test PMT-39 (specified on test deficiency report 2-PT-789 concerning unexpected opening of reactor head vent throttle valves) was inadequate, in that, it did not ensure that emergency procedures were revised or personnel trained to minimize impact on above reactor coolant inventory loss.

This is a Severity Level IV violation (Supplement I)."

Admission or Denial of the Alleged Violation

TVA admits both issues cited in parts a and b of the violation.

Reason for the Violation

Part a

TVA made the decision to update the Final Safety Analysis Report (FSAR) after the modification (Engineering Change Notice [ECN]) had been verified complete and closed. TVA committed to close ECNs after verification that the work was complete. The policy of updating the FSAR after closure of the ECNs did not meet the intent of 10 CFR 50.71(e).

Part b

The spurious opening of the solenoid valves was not recorded as a deficiency in postmodification test (PMT) 39. It was documented as a concern, it was determined to have no adverse effect on the test results, and it did not present a safety concern.

Corrective Actions Taken and Results Achieved

Part a

Sequoyah Standard Practice SQA180, "Amending the SQN Updated FSAR," was revised October 30, 1987, to ensure compliance with 10 CFR 50.71(e). Also, Administrative Instruction (AI) 19, part IV, "Plant Modifications-After Licensing," was revised.

SQA180 now requires that post-7,000 series ECNs and design change notices (DCNs) be included in the FSAR update based on field completion status (i.e., system is operable). AI-19 was revised to require Modifications Branch to notify Site Licensing Staff, by memorandum, when post-7,000 series ECNs and DCNs are field complete.

Part b

The concern was evaluated by Division of Nuclear Engineering (DNE), and the valve performance found acceptable. An unreviewed safety question determination (USQD) was written to document this evaluation.

Corrective Steps Taken To Avoid Further Violations

Part a

Condition adverse to quality report (CAQR) No. SQN 88042 was written to document the problem and provide corrective action and trending information. No further action is required.

Part b

Function Restoration Guideline FR-I-3 was revised on page 9 by adding a Caution Note stating that when the reactor head vent block valve is opened, the throttle valve will cycle open and closed. If the throttle valve does not close, then close both block valves. Also, on page 10, a Caution Note was added stating that the reactor head vent throttle valve position indication may not be accurate. The pressurizer relief tank level, pressure, and temperature should be monitored to verify throttle valve position.

Date When Full Compliance Will Be Achieved

Part a

SQN is in full compliance.

Part b

SQN is now in full compliance.

## Enclosure 2

### Violation 50-327, -328/87-65-02

"Technical Specification 4.3.2.1.3 requires that containment spray response time be demonstrated to be within the limit at least once per 18 months. Surveillance Instruction SI-247.900, Engineered Safety Features Response Time Verification, implements this Technical Specification requirement.

Contrary to the above, this surveillance requirement is not being met in that the containment spray pump start interlock is not included as part of the response time for containment spray actuation.

This is a Severity Level IV violation (Supplement I)."

### Admission or Denial of the Alleged Violation

TVA admits the violation as stated.

### Reason for the Violation

TVA agrees with the violation in that the containment spray response time as required by SQN technical specification (TS) surveillance requirement 4.3.2.1.3, "Engineered Safety Feature Response Time," has not been met in response time tests. Previous response time tests failed to time the interlock generated from a containment spray pump (CSP) start that allows the CSP isolation valves FCV-72-2 and FCV-72-3 to actuate to the safeguard position (open). The CSP isolation valves will only open on actuation of solid-state protection system slave relay K644 coincident with CSP running (initiated by CSP auxiliary breaker contacts). The previous valve tests only timed from actuation of slave relay K644 until the valve reached the full open position.

The violation was the result of inadequate surveillance instruction (SI-247.900, "Engineered Safety Features [ESF] Response Time Verification," and Instrument Maintenance Instruction [IMI] 99, "RT 643A & B Response Time Testing Slave Relay K643") that response time tested the CSP isolation valve FCV-72-2; and subsequent reviews failed to identify the time of the CSP breaker to the containment spray header isolation valve as required for the total TS ESF containment spray response time. Another independent review of SI-247.900 revealed an additional deficiency in that the valve stroke time had been inadvertently omitted from the total response time when adding the individual components. The proper combination of response times should be as follows:

(sensor time) + (rack processing time) + (logic time) + (longer of the following two: CSP response time or isolation valve + interlock contact) = Total time.

Corrective Actions Taken And Results Achieved

IMI 99, RT 643A & B, has been revised to time the CSP breaker contacts; and SI-247.900 has been revised to add the pump breaker contact time to the valve stroke time. A review of past data, which was used to allow entry into mode 4, was evaluated (with inclusion of the CSP breaker interlock time obtained from a performance of the revised RT 643A & B); and it was determined that the TS allowable value was never exceeded. Specifically, the CSP breaker interlock was timed at 0.17 second. SI-247.900 has also been revised to ensure the valve stroke time is added to the total response time when adding individual components.

Corrective Steps That Will Be Taken to Avoid Further Violations

In an effort to avoid future violations and to ensure present testing is adequate, a generic review has been performed on all RT-600-series response time tests. No other deficiencies were identified as a result of this review that could adversely affect TS surveillance requirements.

Date When Full Compliance Will Be Achieved

SN is in full compliance. CAQR SQP 871697 was initiated as a result of potential reportable occurrence (PRO) 1-87-396. The CAQR contains evaluations performed on PRO 1-87-396 and corrective actions for the startup of the applicable units.

ENCLOSURE 3

Violation 50-327, -328/87-65-03

"10 CFR 50, Appendix B, Criterion VI, document control, requires that measures shall be established to control the issuance of documents, such as instructions, procedures and drawings, including changes thereto, for all activities affecting quality. These measures shall assure that documents, including changes thereto, are reviewed for adequacy and approved for release by authorized personnel.

Contrary to the requirements above, changes to the primary control room drawings are made by plant modifications engineers with no second party verification to ensure the adequacy or accuracy of the changes to those drawings.

This is a Severity Level V violation (Supplement I)."

Admission or Denial of the Alleged Violation

TVA admits the violation as stated.

Reason for the Violation

TVA did not consider the red-lining of the control room drawings by the implementing manager to require "official" second-party verification because this is not an unapproved design change but only reflects and documents an approved design change that has been appropriately installed.

Corrective Actions Taken and Results Achieved

Because of concerns about the lack of clarity and accuracy in transferring this data (design change) from the as-designed drawings to the control room drawings, TVA has implemented second-party verification actions. TVA has established in AI-19, part IV, appropriate controls to ensure that ECN design changes are accurately transferred to the control room drawings. The shift technical advisors (STAs) are part of Operations stationed in the control room and, in addition to their normal duties, have been assigned the responsibility to verify the accuracy of the transmitted information and to sign off as second-party verification.

Corrective Steps That Will Be Taken To Avoid Further Violations

SQN AI-19, part IV, "Plant Modifications After Licensing," was revised to incorporate the STA as the second-part verification instrument.

Date When Full Compliance Will Be Achieved

SQN is now in compliance.