



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

March 30, 1994

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) - INSPECTION REPORT NOS. 50-327, 328/94-04 -  
REPLY TO NOTICE OF VIOLATIONS (NOVs) 50-327, 328/94-04-01, -02, AND -03

Enclosure 1 is TVA's reply to Ellis W. Merschoff's letter to Mark O. Medford dated February 28, 1994, which transmitted the subject NOVs. The first violation is for inadequate corrective action to prevent repetition of configuration control issues. The second violation is associated with procedures that were either inadequate or not followed. The third violation is associated with a failure to perform a safety evaluation after the discovery that smoke detectors installed in the plant were determined to be unsuitable for the application. Commitments are included in Enclosure 2.

If you have any questions concerning this submittal, please telephone J. W. Proffitt at (615) 843-6651.

Sincerely,

Ken Powers  
Site Vice President  
Sequoyah Nuclear Plant

Enclosures

cc: See page 2

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ENCLOSURE 1

REVISED RESPONSE TO NRC INSPECTION REPORT  
NOS. 50-327, 328/94-04  
ELLIS W. MERSCHOFF'S LETTER TO MARK O. MEDFORD  
DATED FEBRUARY 28, 1994

Violation 50-327, 328/94-04-01

"10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, requires, in part, that measures be established to assure that conditions adverse to quality such as failures, malfunctions, and nonconformances, are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall ensure that the cause of the condition is determined and corrective action taken to preclude repetition.

"Several configuration control issues were identified as violations in NRC inspection report 327,328/93-33 in July, 327,328/93-39 in August, and 327,328/93-50 in October, 1993. Licensee response to each of the issues focused on measures to ensure that the cause of the condition was determined and corrective actions were taken to prevent recurrence for each event.

"Contrary to the above, licensee corrective actions for the previous issues failed to prevent recurrence of similar problems involving configuration control. These problems included inadequate configuration control of plant equipment involving the inadvertent opening of an accumulator isolation valve on January 10, 1994, inadequate configuration control of FLAS 5 fuses on or before January 25, 1994, and inadequate configuration of an AFW pump hand switch position on January 29, 1994.

"This is a severity level IV violation (Supplement I)."

Reason for the Violation

The reason for the violation was the ineffective communication of expectations and the failure to use the STAR (Stop, Think, Act, and Review) concept.

Corrective Actions That Have Been Taken and the Results Achieved

The Operations Improvement Plan has been revised to outline specific personnel performance expectations including the use of STAR. These expectations have been reviewed by Operations personnel. The review covered barrier analysis and how it pertains to specific operation positions (such as reactor operator, assistant shift operations supervisor, etc.). Specific expectations for Operations management/supervision, as well as for line personnel, have been developed. This establishes an unbroken line of communication between management/supervision and line personnel.

The configuration control deficiencies have been addressed with Operations personnel during training on the equipment status control process. Summary status logs have been developed for each Operations position, ensuring a more complete and documented status of the plant. Status boards have been mounted for review by personnel to heighten the awareness of possible conflicts with planned/scheduled activities.

Corrective Steps That Will be Taken to Avoid Future Violations

The communication of management expectations will establish clear objectives for operator performance. Providing operators the capability through barrier analysis to fully evaluate the cause and effect of plant manipulations will preclude the repetition of similar events.

To ensure that the expectations are understood and to track their effectiveness, management personnel will provide shift oversight and coaching. The expectations will be enforced and reviewed on a periodic basis as outlined in the Operations Improvement Plan.

Date When Full Compliance Will be Achieved

TVA is in full compliance.

Violation 50-327, 328/94-04-02

"10 CFR 50, Appendix B, Criterion V requires, in part, that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings.

"Contrary to the above, the following procedures either were not followed or were inadequate. These regulatory issues were identified during an Operational Review Assessment Team (ORAT) inspection, report number 327, 328/93-201 conducted from August 23, 1993, through September 2, 1993.

- Site Standard Practice (SSP) 12.3 was not followed during valve operations.
- Functional Recovery Procedure F-0.4 [sic] was determined to be inadequate.
- Test Procedure 2-SI-OPS-082-026.A was determined to be inadequate.
- SSP-6.22 was determined to be inadequate.
- A superseded procedure (T-104) [sic] had been used in lieu of its replacement procedure (SSP-10.5).
- Surveillance Instruction 685.2 was not followed for calibration of an RHR pump room radiation monitor.

- SSP-12.7 was not followed regarding proper securing of compressed gas cylinders in the plant.

"This is a severity level IV violation (Supplement I)."

#### Reason for the Violation

Example No. 1: SSP-12.3 was not followed during valve operation.

Operations personnel operated valves that were tagged with a hold order tag. The reason for the violation was a misunderstanding by the individuals involved of the requirements of plant procedures regarding the operation of valves covered by a hold order.

Example No. 2: Functional Recovery Procedure FR-0.4 was determined to be inadequate.

The reason for the violation was a lack of attention to detail by the procedure writer and the reviewer. This represents a lack of self-checking and verification in that the procedure did not provide adequate referencing guidance to ensure that the proper curve would be used when required.

Example No. 3: Test Procedure 2-SI-OPS-082-026.A was determined to be inadequate.

The surveillance instruction (SI) for the diesel generators (D/Gs) did not provide an adequate band to test the D/G, resulting in exceeding the manufacturer's 2-hour rating during testing.

The reason for the violation was that the technical specification did not provide sufficient guidance to ensure that the D/G ratings were not exceeded. The technical specification surveillance was based on the Institute of Electrical and Electronics Engineers, Incorporated, standard criteria for D/G units applied as standby power supplies for nuclear power plants without realizing that the short-time loadings specified in the standard did not address the manufacturer's 2-hour rating.

Also, the test procedure did not address inspection requirements to ensure operability of the D/G following performance of the surveillance.

Example No. 4: SSP-6.22 was determined to be inadequate.

The procedure that allows components to be removed from one system or skid to be used elsewhere was determined to be inadequate to evaluate whether the components were acceptable for use before the component was placed in a ready-to-be-used status.

The reason for the violation is that the procedure did not address the storage conditions for abandoned or nonfunctional equipment. The equipment removed from the fifth D/G had not met the storage requirements for the service application.

Example No. 5: A superseded procedure (TI-104) had been used in lieu of its replacement procedure.

A review of the two procedures in question was performed, and it was determined that the use of either procedure could have resulted in the failure to issue the correct material. TI-104 was a valid procedure and it was determined not to have contributed to the issue. The reason for the violation was a lack of attention to detail. The original QA level 0 light assemblies were procured and accepted with the assemblies containing 12-watt bulbs instead of the specified 10-watt bulbs. The manufacturer's standard replacement light assembly includes a 12-watt bulb. The wattage of the bulbs was not evaluated at the time of receipt. Also, when the light assembly was compared with a QA Level 3 light assembly that already existed and included a 12-watt bulb in the light assembly, the difference in bulb wattage was not identified.

Example No. 6: SI-658.2 was not followed for the calibration of a residual heat removal pump-room radiation monitor.

The 18-month calibration of a radiation monitor was not performed as required. The reason for the violation was that the surveillance package was closed with open test deficiencies because Maintenance personnel failed to properly identify that the radiation monitor had not been calibrated since the radiation monitor was out of service when the calibration was to be performed. When the radiation monitor was returned to service, the calibration was not performed as expected.

Example No. 7: SSP-12.7 was not followed regarding the proper securing of compressed gas cylinders in the plant.

The reason for the violation is a lack of accountability for adherence to the requirements and insufficient management oversight and emphasis on compliance with housekeeping requirements.

#### Corrective Actions That Have Been Taken and the Results Achieved

Example No. 1

A standing order was issued to Operations personnel stating that components covered by a hold order are not to be operated as specified in plant procedures. The only time a valve covered by a hold order is manipulated is during an audit of the hold order as required by the hold-order procedure.

The hold-order procedure was evaluated and determined to provide adequate guidance relative to when valves covered by hold orders can be operated. Training on hold orders was evaluated and it was determined to be adequate.

Example No. 2

FR-0.4 was revised to properly label the unlabeled curves. A review of other emergency operating procedures was performed to determine whether similar deficiencies existed. Two other procedures were determined to have similar deficiencies. These procedures were revised to correct the identified deficiencies. The deficiencies pointed out a training weakness on some procedure usage by the unit operators. A training policy has been established to require that the unit operators' requalification training include training as the shift technical advisor (STA) when an STA is unavailable. This will provide further insight to the unit operators on emergency procedure usage.

The verification and validation procedure was revised to include a checklist for verification and validation.

Example No. 3

A technical specification change was submitted and approved to allow testing of the D/G within a specified range.

The SI for the D/G was revised to include the specified band to test the D/G and not exceed the manufacturer's 2-hour rating.

Example No. 4

A review of the applicable processes and procedures concerning the transfer or borrowing of installed equipment on both operating and nonoperating equipment was performed. It was determined that the procedure for nonoperating, installed equipment was inadequate. SSP-6.22 has been revised to require a hold point in the work request for an evaluation of the equipment by the appropriate Engineering personnel to determine acceptability of the equipment. SSP-10.4 and SSP-10.5 have been revised to include instructions concerning equipment and components transferred from plant equipment that is not in service. A search of additional components that were removed from the fifth D/G was performed, and 11 additional work requests were identified where components have been removed. It was determined that for each of the components removed from the fifth D/G, a postmaintenance test had been performed for the components to ensure operability of the component.

Example No. 5

TI-104 has been cancelled, and the appropriate guidance has been included in SSP-10.5. MI-10.56 has been revised to require verification of the bulb wattage when the replacement of a light assembly is performed. The appropriate Engineering personnel have been counselled and trained regarding the risks associated with piece parts of assemblies. The 12-watt bulbs that were installed in lighting packs in the field have been replaced with 10-watt bulbs. The remaining exide lighting packs were verified to have the correct bulbs installed. No additional deficiencies were identified. An evaluation of the effect of the higher-wattage bulb on battery life was performed, and it was determined that the life of the batteries would not have been affected.

Example No. 6

The radiation monitor was declared inoperable, and the surveillance was performed. The radiation monitor was determined to be in calibration and was declared operable. The personnel involved in the incident have been counselled on the requirement concerning the surveillance frequency for radiation monitors. A training memorandum was issued to the appropriate Instrument Maintenance personnel to ensure that they were aware of the incident, to ensure that they were aware of the requirements, and to provide lessons learned concerning the incident. A review of surveillance tests of other radiation monitors was performed to determine if any other tests were outside the specified frequency. One additional radiation monitor was identified. The radiation monitor was declared inoperable, and the surveillance was performed. The radiation monitor was determined to be in calibration and was declared operable.

Example No. 7

A walkdown of the plant was performed to remove compressed gas cylinders not in use and to ensure that the remaining cylinders were properly restrained. A walkdown of the safety-related areas was performed to ensure that temporary items in the plant were secure and labeled, as appropriate. As a result of the walkdowns, deficiencies were identified and corrected. A simplified method for securing gas cylinders has been developed.

Corrective Steps That Will be Taken to Avoid Future Violations

Example No. 1 - No further actions are required.

Example No. 2 - No further actions are required.

Example No. 3 - No further actions are required.

Example No. 4 - No further actions are required.

Example No. 5 - No further actions are required.

Example No. 6 - No further actions are required.

Example No. 7 - Training material will be developed to communicate to the appropriate plant personnel the requirements and management expectations for temporary equipment and materials. The requirements and management expectations for temporary equipment and materials will be communicated to the appropriate plant personnel after development of the training material. The housekeeping inspection program has been reviewed and will be revised, as appropriate, to strengthen monitoring requirements and reduce the complexity of the procedure.



Date When Full Compliance Will be Achieved

TVA will be in full compliance by June 15, 1994.

Violation 50-327, 328/94-04-03

"10 CFR 50.59 (b) (1) states, in part, that the licensee shall maintain records of changes in the facility and changes in procedures made pursuant to this section, to the extent that these changes constitute changes in the facility as described in the safety analysis report or to the extent that they constitute changes in procedures as described in the safety analysis report. These records must include a written safety evaluation which provides the bases for the determination that the change, test, or experiment does not involve an unreviewed safety question.

"During an Operational Review Assessment Team (ORAT) inspection, report number 327, 328/93-201 conducted from August 23, 1993 through September 2, 1993 a review of a modification for control room ventilation smoke detectors was conducted. FSAR Section 9.4.1.2 states that main control room smoke detectors are designed to provide automatic isolation of the main control room HVAC system and initiate the main control room emergency ventilation system upon detection of smoke.

"Contrary to the above, a safety evaluation was not performed after discovery of smoke detectors installed in the main control room which were found to be unsuitable for the duct-type application in which they were installed. The licensee's evaluation for this detector installation did not address the FSAR design requirements.

"This is a severity level IV violation (Supplement I)."

Reason for the Violation

The reason for the violation is the lack of control of the night order that was established to ensure the operability of the system.

At the time the condition with the smoke detectors was identified, a night order was issued, providing the operators with directions to isolate the main control room if smoke was observed. The condition was documented on a corrective action document, and an engineering evaluation was performed and tracked. The night order was subsequently cancelled without the condition being corrected or the directions for the operators to isolate the control room being formally established. An evaluation was not performed when the night order was cancelled.

It should be noted that this violation was identified during a review of open corrective action documents, not during a review of a modification. The smoke detectors were installed during the original construction of the plant.

Corrective Actions That Have Been Taken and the Results Achieved

The conduct of operations procedure has been revised to provide better control of the issuance and cancellation of night orders.

A 10 CFR 50.59 evaluation was performed that deleted the automatic feature requirement from the Final Safety Analysis Report for the smoke detectors, and manual actuation is now required. An abnormal operating procedure change was performed to provide guidance on the process of isolating the control room upon smelling smoke. Also, the specific training of operators on control room isolation was conducted.

A problem evaluation report has been initiated to document that interim measures are not being maintained.

Corrective Steps That Will be Taken to Avoid Future Violations

No further actions are required.

Date When Full Compliance Will be Achieved

TVA is in full compliance.

ENCLOSURE 2

INSPECTION REPORT 94-04

COMMITMENTS

1. Training material will be developed to communicate to the appropriate plant personnel the requirements and management expectations for temporary equipment and materials. This action will be completed by April 29, 1994.
2. The requirements and management expectations for temporary equipment and materials will be communicated to the appropriate plant personnel after development of the training material. This action will be completed by June 15, 1994.
3. The housekeeping inspection program will be revised, as appropriate, to strengthen monitoring requirements and reduce the complexity of the procedure. This action will be completed by April 29, 1994.