

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
5N 157B Lookout Place

SEP 09 1988

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

Gentlemen:

In the Matter of)
Tennessee Valley Authority)

Docket Nos. 50-327
50-328

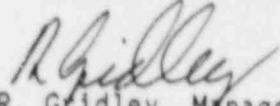
SEQUOYAH NUCLEAR PLANT (SQN) UNITS 1 AND 2 - NRC INSPECTION REPORT
NOS. 50-327, -328/88-28 - RESPONSE TO NOTICE OF VIOLATION (NOV)
50-327, -328/88-28-01

Enclosed is TVA's response to F. R. McCoy's letter to S. A. White dated
August 16, 1988, that transmitted the subject NOV.

If you have any questions, please telephone M. A. Cooper at (615) 870-6549.

Very truly yours,

TENNESSEE VALLEY AUTHORITY


R. Gridley, Manager
Nuclear Licensing and
Regulatory Affairs

Enclosures

cc (Enclosures):

Ms. S. C. Black, Assistant Director
for Projects
TVA Projects Division
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

Mr. F. R. McCoy, Assistant Director
for Inspection Programs
TVA Projects Division
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Sequoyah Resident Inspector
Sequoyah Nuclear Plant
2600 Igou Ferry Road
Soddy Daisy, Tennessee 37379

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PDR ADDCK 05000327
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Enclosure

Response to NRC Inspection Report
No. 50-327, -328/88-28
F. R. McCoy's Letter to S. A. White
Dated August 16, 1988

Violation 50-327, -328/88-28-01

"Technical Specification (TS) 6.8.1 requires that procedures recommended in Appendix 'A' of Regulatory Guide 1.33, Revision 2, be established, implemented and maintained. This includes maintenance procedures and surveillance instructions. The requirements of TS 6.8.1 are implemented in part by Sequoyah nuclear plant standard practice SQM-2, 'Maintenance Management System' and Surveillance Instruction SI-246, 'Recalibration Procedure for Reactor Coolant Flow Channels'.

1. SQM-2, Section 6.2, requires that plant configuration discrepancies be reported to the shift technical advisor immediately.

Contrary to the above, on May 15, 1988, an improper and undesignated butt splice, which was associated with steam generator No. 3 level indicator 2-LI-3-97, was found to be at variance with drawing 47E 234-45. This configuration discrepancy was not immediately reported to the shift technical advisor as required by SQM-2, Section 6.2.

2. Surveillance instruction SI-245, requires that after isolating a transmitter to begin the calibration, the sense lines for the transmitter are to be depressurized via the test tee fittings.

Contrary to the above, on May 23, 1988, instrument mechanics performing SI-246 depressurized the sense lines of flow transmitter 2-FT-68-71B via the high side drain valve on the bottom of the transmitter. This deviation from procedure created a void in the transmitter's high side drain line, causing a pressure drop in the common high side sense line to flow transmitter 2-FT-68-71D when flow transmitter 2-FT-68-71B was returned to service. This resulted in a Unit 2 reactor trip.

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

Admission or Denial of the Alleged Violation (Example 1)

TVA admits the violation.

Reason for the Violation (Example 1)

The reason for the delayed actions taken after the initial identification of the improper butt splice was a miscommunication by the employees in the field about who would report the improper butt splice. Also, unfamiliarity with the requirements of Sequoyah Standard Practice (SQM) 2, "Maintenance Management System," on how to report this type of condition contributed to the miscommunication.

The reason the unqualified butt splice was present initially is attributed to the splice being installed during the construction era of the plant when the construction specification allowed this type of splice of class 1E cables

to be installed inside containment. The cause of the splice going undetected until the present is attributed to the splice being located inside the upper neck portion of the conduit body. The splice was hidden from normal view when performing most work inside the conduit.

Corrective Steps That Have Been Taken and Results Achieved (Example 1)

Immediate corrective actions were to declare the channel inoperable and eliminate the unqualified butt splice. Rather than upgrade the butt splice with a qualified splice, the complete transmitter pigtail assembly was replaced back to the first junction box. An immediate investigation was initiated to determine what caused the unqualified splice, and it was determined to be an isolated case. Three other steam generator level transmitters of a similar design were also inspected to give additional assurance that this was an isolated case. No other unqualified splices were discovered.

Corrective Steps That Will Be Taken to Avoid Further Violations (Example 1)

Because the presence of the unqualified butt splice was determined to be an isolated case, no further recurrence control is planned. The plant procedure, Modification 3 Addition Instruction 7, "Cable Terminations, Splicing, and Repairing of Damaged Cables," which presently implements the design requirements for performing splices, requires strict control of splice installations to ensure 10 CFR 50.49 qualifications are maintained. Previous efforts of inspecting and replacing all known 10 CFR 50.49-related splices required for unit 2 restart have been completed and documented under a TVA design output document, "10 CFR 50.49 Cable and Splice List." This document was issued on March 7, 1988.

To ensure that situations that could affect plant safety or conditions that are not according to design documents are identified to the appropriate levels (i.e., shift technical advisor or shift operations supervisor) in a timely manner, plant superintendents (Maintenance, Radiological Control, Operations, and Technical Support) have discussed this event and provided training to their respective plant employees. This training included emphasis on the necessity to report adverse conditions immediately and addressed the correct method of reporting these adverse conditions as delineated in SQM2. In addition to this training, Instrument Maintenance employees received training on how to identify proper and improper butt splices.

The site quality control manager has provided training to the electrical and instrument and control disciplines to ensure that these employees are aware of the operability notification requirements of SQM2. Administrative Instruction (AI) 20, "QA Inspection Program," has been revised to clarify the documentation requirements for inspection personnel whenever a rejected item is discovered.

Admission or Denial of the Alleged Violation (Example 2)

TVA admits the violation.

Reason for the Violation (Example 2)

Instrument mechanics (IMs) were performing surveillance instruction 246, which was written to calibrate the transmitter (2-FT-68-71R) while "on-line" without losing any of the reactor coolant system (RCS) fill fluid in the sense line. The procedure instructs the performer to "crack the transmitter high side test tee fitting to bleed pressure then remove the test tee fitting" after the transmitter is removed from service. This step is performed to relieve RCS pressure before connecting calibration equipment. The IMs relieved system pressure from the sense lines by the high-side drain valve, which is located at the lowest point in the sense line. The drain line routes to a closed drain system that made it impossible to determine how much fill fluid was lost when the drain valve was opened. Venting to the drain line was done to eliminate the chance of pressurized RCS fill fluid being sprayed into the area. By utilizing the drain line, the IMs created a void in the high-side drain line. At the time, the IMs did not consider this a departure from the procedure, only a cleaner method of venting.

Corrective Steps That Have Been Taken and Results Achieved (Example 2)

Following an investigation into the event, the appropriate individuals were disciplined. The event, its cause, and the results were discussed in a section meeting on May 31, 1988. Additionally, IMs were cautioned about the possible effects of failing to follow procedures. IMs were also reminded that inability to follow procedures for any reason should be reported to their immediate supervisor before alternate methods were attempted. Use of alternate methods requires a change in procedures as addressed by AI-47, "Conduct of Testing."

Corrective Steps That Will Be Taken to Avoid Further Violations (Example 2)

IMs are required to complete training course ICT-202.002, which primarily addresses configuration control but also addresses compliance with procedures and is a yearly (annual) retraining commitment. Additionally, the subject of following procedures precisely is being addressed and discussed in Instrument Maintenance section meetings, along with the proper steps to be taken when problems are encountered.

Date When Full Compliance Will Be Achieved (Examples 1 and 2)

SN is in full compliance.