

TENNESSEE VALLEY AUTHORITY

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MAY 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

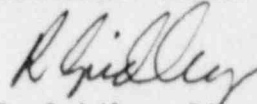
SEQUOYAH NUCLEAR PLANT (SQN) - NRC INSPECTION REPORT NOS. 50-327/88-22 AND  
50-328/88-22 - RESPONSE TO UNRESOLVED ITEM (URI) 50-327, -328/88-22-01

Enclosed is my response to F. R. McCoy's letter to S. A. White dated  
April 13, 1988, that transmitted Inspection Report Nos. 50-327/88-22 and  
50-328/88-22 and requested response to URI 50-327, -328/88-22-01.

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

Very truly yours,

TENNESSEE VALLEY AUTHORITY



R. Gridley, Director  
Nuclear Licensing and  
Regulatory Affairs

Enclosures  
cc: See Page 2

U.S. Nuclear Regulatory Commission

**MAY 16 1988**

cc (Enclosures):

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## ENCLOSURE 1

URI 50-327, -328/88-22-01

"On March 28, 1988, at 9:15 p.m., the inspectors reviewed the work associated with the repairs performed on 2-LCV-3-173. This is the control valve on the AFW header which is supplied from the TDAFP and is utilized to feed and maintain the water level in the #2 SG. The inspectors noted that the manual block valve, 2-HCV-3-868, upstream of the LCV, was unlocked and closed. An immediate review of the status of this equipment with the on-shift Assistant SS revealed that the work on valve 2-LCV-3-173 had been completed and the valve had been declared operable at 5:37 p.m. on March 28, 1988 and LCO 3.7.1.2, was exited. The LCO for this LCV repair had been entered on March 27 at 8:09 p.m. per the LCO log. With the manual block valve in the closed position, the safety system could not feed the #2 SG from the TDAFP in the event of an accident condition. Additional review of the LCO log indicated that the same LCO, 3.7.1.2, had been entered on March 28, 1988 at 2:08 p.m. for repair to the control/alarm instrumentation associated with the feedwater supply to the TDAFP. Therefore, LCO 3.7.1.2 was in effect during the timeframe that the manual valve was closed although it was not apparent to the operator that any off-normal conditions remained from the repairs to the LCV. A review of the Configuration Log revealed that the closed valve configuration had been entered. This log is required by AI-5 to be reviewed by the on-coming RO and the Assistant SS. However, the turnover between the day-shift and evening-shift on March 28, 1988 did not identify in Appendix A1 of AI-5 any off-normal or unusual condition associated with having 2-HCV-3-868 in the closed position. The turnover on the previous shift had identified that valve 2-HCV-3-868 was in the closed position. Additionally, the inspector did not identify any reference to the closure of 2-HCV-3-868 during a review of the Unit 2 RO log between March 27, 1988, when the LCV failed its SI, through 9:30 p.m. on March 28, 1988, when the inspectors notified the control room personnel of the problem. When notified, operations personnel took immediate action and had the valve opened and verified locked open. This will be considered an unresolved item pending licensee investigation and further NRC review (327,328/88-22-01)."

### Root Cause

At 8:09 p.m. EST on March 27, 1988, 2-LCV-3-173, the steam generator level control valve from the turbine-driven auxiliary feedwater pump (TDAFWP) to steam generator No. 2, was declared inoperable because of a defective positioner; and limiting condition for operation (LCO) 3.7.1.2 was entered. At 2:18 a.m. EST on March 28, 1988, the assistant shift supervisor (SS) on unit 2 approved work on 2-LCV-3-173 through work request (WR) B267624. At 3:00 a.m. EST, the assistant SS completed an appendix B configuration file sheet detailing the closure of 2-HCV-3-868 (the manual isolation valve for 2-LCV-3-173) in accordance with Administrative Instruction (AI) 58, "Maintaining Cognizance of Operational Status - Configuration Status Control, Units 0, 1, and 2," to protect plant equipment and personnel during the maintenance work. The configuration sheet was filed in the daily configuration log. A note was also added to the impact evaluation sheet used by the work control group indicating the closure of 2-HCV-3-868. Maintenance work continued through the rest of the shift; so during shift turnover, the

midnight shift recorded the closure of 2-HCV-3-868 in their AI-5, "Transfer of Authority and Responsibility," sheet to inform the oncoming day shift of the activity. At 2:08 p.m. EST, LCO 3.7.1.2 was entered for pressure switch problems on the TDAFWP (WR B267969). At 5:37 p.m. EST, the instrument mechanics notified the unit 2 assistant SS that 2-LCV-3-173 could be returned to service. The assistant SS reviewed Surveillance Instruction (SI) 166.6, "Testing of Category 'A' and 'B' Valves After Maintenance or Upon Release From a Hold Order - Units 1 and 2"; declared the valve operable; and exited LCO 3.7.1.2 for 2-LCV-3-173 only. At 9:30 p.m. EST, NRC inspectors approached the unit 2 assistant SS about the operability of 2-LCV-3-173. The inspectors asked if the assistant SS was aware that 2-HCV-3-868 was closed. The assistant SS indicated he was not aware that the valve was closed. The root cause of this event was inadequate information recorded in AI-6, "Log Entries and Review," regarding off-normal equipment associated with an entry into an LCO.

#### Corrective Action

As immediate corrective action, the assistant SS instructed the unit operator to have valve 2-HCV-3-868 opened. At 9:45 p.m. EST, the valve was independently verified to be locked open. SI-186, "Locked Valve Position Verification (Per NRC Commitment) Units 0, 1, and 2," was also performed on the valve at that time. The AI-58 configuration log was signed off indicating the valve had been returned to the normal position.

As long-term corrective action, SQN is revising AI-6 to provide additional space in the LCO action log and is requiring that the reason(s) for entering the LCO and specific actions/equipment conditions be entered in the log as appropriate. In addition, a verification will be added to the LCO log to ensure operators align systems for technical specification operability. This will be accomplished by an appropriate review of the configuration log. This revision will be completed by August 19, 1988.

ENCLOSURE 2

List of Commitments

1. Revise AI-6 to provide additional space in the LCO action log and require the reason(s) for entering LCO and specific actions/equipment conditions be entered in the log as appropriate. In addition, a verification will be added to the LCO log to ensure operators align systems for technical specification operability. This will be accomplished by an appropriate review of the configuration log. This revision will be completed by August 19, 1988.