



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

Mark O. Medford
Vice President, Nuclear Assurance, Licensing and Fuels

October 29, 1992

Director, Office of Enforcement
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,
50-328/92-29 - REPLY TO NOTICE OF VIOLATION (NOV) 50-327/92-29 AND
PROPOSED IMPOSITION OF A CIVIL PENALTY

The enclosure contains TVA's reply to Stewart D. Ebner's letter to TVA dated September 29, 1992, which transmitted the subject NOV and proposed imposition of a civil penalty. This violation pertains to operation in Mode 1 with the Unit 1 B train safety injection pump inoperable in excess of technical specification permitted outage time.

NRC noted a concern in the letter transmitting the NOV regarding ineffective management actions to correct problems associated with inadequacies in postmaintenance testing and personnel performance. TVA has recognized the need for improvement and, as a result of this and other performance-related events, significant actions have been taken to reinforce appropriate performance standards. While TVA has seen improvement, overall performance is not yet at the desired level. Personnel performance expectations had not been consistently defined, communicated, demonstrated, and enforced. Accordingly, extensive communication meetings were conducted by the Vice President of Nuclear Operations, the Site Vice President, and the Plant Manager with all site personnel. TVA will continue to evaluate progress and refine performance improvements, as necessary. TVA considers that the path to achieve success has been charted and is being followed.

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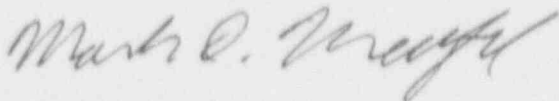
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U.S. Nuclear Regulatory Commission
Page 2
October 29, 1992

The event associated with this violation was previously reported in accordance with 10 CFR 50.73 by Licensee Event Report 50-327/920. There are no new commitments associated with this response. Payment of the proposed civil penalty in the amount of \$62,500 was made by electronic fund transfer No. 921029001187.

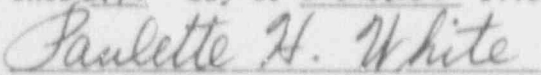
If you have any questions concerning this submittal, please telephone M. A. Cooper at (615) 343-8924.

Sincerely,



Mark O. Medford

Sworn to and subscribed before me
this 29th day of October 1992


Notary Public

My Commission Expires 11-4-92

Enclosure

cc (Enclosure):

Mr. D. E. LaBarge, Project Manager
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

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

Mr. B. A. Wilson, Project Chief
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

ENCLOSURE

REPLY TO NOTICE OF VIOLATION
NRC INSPECTION REPORT NO. 50-327/92-29
STEWART D. EBNETER'S LETTER TO M. O. MEDFORD
DATED SEPTEMBER 29, 1992

Violation 50-327/92-29

"Technical Specification 3.5.2 requires that two independent Emergency Core Cooling System (ECCS) subsystems shall be OPERABLE with each subsystem comprised of:

- a. One OPERABLE centrifugal charging pump
- b. One OPERABLE safety injection pump
- c. One OPERABLE residual heat removal heat exchanger
- d. One OPERABLE residual heat removal pump, and
- e. An OPERABLE flowpath capable of taking suction from the refueling water storage tank on a safety injection signal and automatically transferring suction to the containment sump during the recirculation phase of operation.

"Technical Specification 3.5.2 ACTION statement a. requires that with one ECCS subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.

"Contrary to the above, from July 31 to August 10, 1992, Unit 1 operated at approximately full power with the B train safety injection pump inoperable.

"This is a Severity Level III violation (Supplement 1).
Civil Penalty - \$62,500"

Admission or Denial of the Violation

TVA admits the violation.

Reason for the Violation

Although the cause of this event could not be conclusively established, TVA considers the cause to have been a combination of failure of the breaker trip button to function properly and lack of attentiveness. It appears that during the process of racking in the breaker, the manual trip button became depressed and stuck in the trip position. It was determined that the close tolerances associated with the manual trip button, such as could be created by slight bowing of the small cover plate and differences in the travel distance of the trip button relative to button sleeve length, might tend to introduce the potential for the manual trip button to become stuck after being depressed. (The racking mechanism automatically causes the button to depress slightly.) Additionally, although procedures were followed, had the individuals exercised increased attentiveness, the misaligned button might have been identified earlier.

A contributing factor to this event was that the procedure requiring verification of breaker operability did not specifically require the position of the manual trip button to be verified.

TVA recognizes that testing of the end-device following reracking of the breaker would have identified the condition prior to its return to service. It has previously been TVA's policy not to test the end-device following reracking of the associated breaker. Reracking was considered to be normal operation of the component in accordance with its design, i.e., an "on/off" operation.

Corrective Actions Taken and Results Achieved

Operations personnel identified that the manual trip button on the breaker was stuck in the trip position during routine surveillance activities and immediately corrected the problem. The surveillance on the pump was successfully completed, and the LCO was exited.

The safety-related 6.9-kV breakers on both units were inspected by Operations personnel to ensure that no other breaker was in an inoperable condition as a result of misalignment of the manual trip button. A memorandum was issued to all Operations personnel alerting them of the potential of the manual trip button to stick, affecting breaker operability. This information was covered at shift turnover until all crews were briefed.

An inspection of the breaker by plant personnel was performed in conjunction with the vendor. It identified no physical defects; however, the small cover plate on the breaker face was slightly bowed and may have contributed to the potential for the manual trip button to become stuck. Appropriate Electrical Maintenance personnel have been informed of the potential for the breaker trip button to stick in the trip position.

Electrical Maintenance and Operations training lesson plans have been revised to include information on the potential for misalignment of the manual trip button on the 6.9-kV breakers when racking in the breaker.

The appropriate general operating instruction and maintenance instruction have been revised to include verification of the manual trip button position. The verification procedure has been revised to enhance self-checking techniques in the performance of work.

Prior to this event, extensive corrective measures designed to enhance the verification and postmaintenance testing processes and practices were identified. These included initiating a review of procedures for appropriate specification of PMT and verification type, extensive training of personnel, enhancement of the postmaintenance test matrix and verification program, strengthened in-line lead planner and general foreman review of work orders/documents, and broader application of postmaintenance and end-device testing, irrespective of verification type performed. These measures have been reviewed, additional enhancements have been made as appropriate, and controls/guidance are being institutionalized. These measures establish both interim and long-term responses to the underlying concern regarding controls on the return of safety-related equipment to service.

Administrative guidelines concerning end-device testing after manipulations of the 6.9-kV breakers have been incorporated into site procedures. The procedure requires that when remote-operated 6.9-kV circuit breakers for technical specification equipment have been racked out of the connect position, the end device shall be operated to ensure breaker operability prior to the component being declared operable. This requirement may be waived only on an individual-case basis following review and approval by the shift operations supervisor or the Duty Plant Manager.

Corrective Steps That Will be Taken to Avoid Further Violations

An evaluation of the manual trip button sticking mechanisms was performed, and enhancements are being made to the breaker. The manual trip buttons on the 1E breakers are being replaced with longer buttons to reduce the potential of sticking. The buttons are being replaced in accordance with site procedures as routine breaker maintenance permits.

To address the potential lack of attentiveness of persons involved in this event, comprehensive site-wide efforts have been implemented to emphasize to personnel the importance of proper job performance. In particular, senior site and Nuclear Power management meetings were held with all site groups to communicate management's view of Sequoyah Nuclear Plant (SQN) performance and management expectations regarding personnel performance and risk sensitivity. Additional management efforts have been implemented to strengthen accountability and awareness of obligations regarding personnel performance. Actions will be taken for poor performance in accordance with TVA policy and practices.

A senior manager group was assigned to monitor, coach, and counsel employees during performance of work activities to improve performance and elevate individual expectations and awareness of management's performance expectations. Additionally, an Operations performance evaluation is being conducted by the Site Quality organization, and a performance evaluation is scheduled to be conducted in the Maintenance organization. This long-term evaluation uses definitive criteria for the monitoring activities and provides a quantitative measure of performance levels. The results of these evaluations provide plant management with useful and timely feedback of changes in performance levels.

Date When Full Compliance Will be Achieved

SQN is in full compliance.