



Tennessee Valley Authority, Post Office Box 2000, Soddy-Daisy, Tennessee 37379-2000

Robert A. Fenech
Vice President, Sequoyah Nuclear Plant

December 22, 1992

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

Gentlemen:

In the Matter of)
Tennessee Valley Authority)

Docket No. 50-327

SEQUOYAH NUCLEAR PLANT (SQN) - UNIT 1 - FACILITY OPERATING LICENSE DPR-77 -
TECHNICAL SPECIFICATION (TS) 3.3.3.8 SPECIAL REPORT 92-10

The enclosed special report provides details concerning the inoperability of the fire detection instruments in Fire Zones 357 and 369. These zones are in the Unit 1 reactor building lower containment in the area of reactor coolant pump Nos. 2 and 4, respectively. These fire detection instruments will be out of service until the next outage of sufficient duration to correct the problems and return the instrumentation to operable status. The recurring failures of fire detection instrumentation in the Unit 1 lower containment in the reactor coolant pump areas is currently under evaluation to develop appropriate corrective actions. This report is being submitted in accordance with TS Action Statement (h) of Limiting Condition for Operation 3.3.3.8.

If you have any questions concerning this submittal, please telephone C. H. Whittemore at (615) 843-7210.

Sincerely,

Robert A. Fenech

Enclosure
cc: See page 2

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cc (Enclosure):

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ENCLOSURE

SEQUOYAH NUCLEAR PLANT (SQN) SPECIAL REPORT 92-10

Description of Condition

On November 10, 1992, with Unit 1 in Mode 1, the thermal fire detection instrumentation in the Unit 1 reactor coolant pump (RCP) No. 2 area was declared inoperable, and Limiting Condition for Operation (LCO) 3.3.3.8 was entered. Trouble alarms were acknowledged on Panel O-PNL-13-631 for Fire Zone 357. Several attempts to identify and resolve the problem and maintain the operability of the fire detectors were unsuccessful. The thermal detectors cannot be repaired until the next outage of adequate duration. On November 16, 1992, the same condition developed in Fire Zone 369 in the RCP No. 4 area.

Cause of Condition

The thermal detectors in the area of RCP Nos. 2 and 4 have repeatedly brought in the trouble alarms on the pyrotronics system (Panels 631 and 629). These alarms use supervisory circuits that transmit low current signals and measure the resistance in the electrical system to determine if the detector's integrity is good. The cause of the problem is unknown at this time because the instruments are located in the lower containment compartment area, and troubleshooting cannot be performed until an outage of adequate duration.

Corrective Action

In accordance with LCO 3.3.3.8 Action Statement (a), the Unit 1 lower containment compartment air temperature is being monitored at least once every hour and will continue to be monitored until the detectors are restored to operable status. The detectors and system circuits will be inspected and evaluated as to the cause of the sporadic operation. Work requests have been written and placed on the forced-outage item list. SQN will remain in LCO 3.3.3.8 until the detectors are repaired and/or replaced. An evaluation of the recurring failures of the RCP fire detector circuits is ongoing to develop appropriate corrective actions.