



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

J. L. Wilson
Vice President, Sequoyah Nuclear Plant

November 10, 1992

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

Gentlemen:

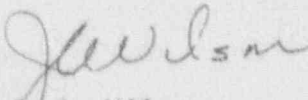
In the Matter of)
Tennessee Valley Authority)

Docket No. 50-327

SEQUOYAH NUCLEAR PLANT (SQN) - UNIT 1 - FACILITY OPERATING LICENSE DPR-77 -
SPECIAL REPORT 92-09

The enclosed special report provides details concerning the inoperability of fire detection instruments in Fire Zone 352 for the Unit 1 containment lower compartment cooler areas. This report is being submitted in accordance with Technical Specification Action Statement 3.3.3.8.b.

If you have any questions concerning this submittal, please telephone J. Bajraszewski at (615) 843-7749.


J. L. Wilson

Enclosure
cc: See page 2

9211160441 921110
PDR ADDCK 0560327
S PDR

Handwritten initials and date: 11/11/92

U.S. Nuclear Regulatory Commission

Page 2

November 10, 1992

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

SEQUOYAH NUCLEAR PLANT (SQN) SPECIAL REPORT 92-09

PHOTOELECTRIC DETECTORS LOCATED IN THE UNIT 1 CONTAINMENT LOWER COMPARTMENT COOLER AREAS

Description of Condition

On September 27, 1992, with Unit 1 in Mode 1, the photoelectric detection instrumentation in the Unit 1 lower compartment cooler areas was declared inoperable, and Limiting Condition for Operation (LCO) 3.3.3.8 was entered. Trouble alarms were acknowledged on Panel 629 for Fire Zone 352. Several attempts to identify and resolve the problem and maintain the operability of the fire detectors were unsuccessful. The photoelectric detectors could not be repaired until the next outage of adequate duration. The detectors were replaced on October 27, 1992, during a Unit 1 forced outage, and Fire Zone 352 was tested, found acceptable, and returned to service. The time required to restore the instruments to operable status exceeded the technical specification allowable timeframe for fire detection instrumentation to be nonfunctional.

Cause of Condition

The photoelectric detectors in the lower compartment cooler areas brought in the trouble alarms on the pyrotronics system (Panel 629). This alarm is a supervisory circuit that transmits low current signals and monitors the resistance in the detection zone to determine circuit integrity. Troubleshooting of the detector circuit identified a high electrical resistance. The cause for the high resistance was not determined.

Corrective Action

In accordance with LCO 3.3.3.8 Action Statement (a), the Unit 1 lower containment compartment air temperature was monitored at least once every hour until the detectors were restored to operable status. A work request was immediately written and then worked during the forced outage. The detectors and the circuits to Fire Zone 352 were inspected, and the cause of the sporadic operation was determined to be a high electrical resistance in the circuit. The detector bases were cleaned and four detectors were replaced. A postmaintenance test was performed and Fire Zone 352 was returned to service. LCO 3.3.3.8 was exited on October 27, 1992.