Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609-2000

August 1, 2000

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

Gentlemen:

In the Matter of) Docket No. 50-296
Tennessee Valley Authority)

BROWNS FERRY NUCLEAR PLANT (BFN) - UNIT 3 - REPORT REQUIRED BY TECHNICAL SPECIFICATION (TS) 5.6.6 - POST ACCIDENT MONITORING (PAM) INSTRUMENTATION INOPERABLE.

In accordance with BFN Unit 3 Technical Specifications section 5.6.6, this letter is being submitted to report a failure of a BFN Unit 3 PAM instrument on the 3D outboard Main Steam Isolation Valve (MSIV).

Background

This condition was identified on June 24, 2000, during the performance of a surveillance intended to determine the operability of the MSIV Reactor Protection System (RPS) limit switch trip functions. This surveillance is required by BFN Unit 3 Technical Specification Table 3.3.1.1-1 (function 5) MSIV closure. The performance of this surveillance includes observation of the valve less than full open, which is indicated by a green light in the control room. A limit switch activates the green valve position indicating light and provides valve position data to the process computer. During the performance of this surveillance, the green light failed to illuminate when the 3D outboard MSIV was tested. Verification that the specified relays are de-energized when the MSIV is partially closed is also performed. In this case the relays performed as expected.

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The Main Steam Isolation Valves are primary containment isolation valves which function to limit the amount of coolant inventory lost after a main steam line break in order to prevent uncovering the fuel and to limit the release of radioactive material to the environment to less than the values specified in 10 CFR 100. This is accomplished by requiring the MSIVs to automatically close under certain conditions. It is necessary to ensure these valves close as designed after an accident so that these criteria are met. For this reason, the devices used to monitor their position are classified as PAM instruments. These valves are also classified as ASME section XI valves and as such they are required to be tested for remote position indication.

Alternate Monitoring Method

Each Main Steam Isolation Valve has two independent valve position indication lights located in the main control room. The green light is designed to illuminate whenever the valve is less than 85 percent full open and the red light is designed to illuminate whenever the valve is greater than 3 percent open. The purpose of the green light is to provide the operator with a visual indication of valve travel and that the valve is in an intermediate position less than 85 percent full open. Alternate methods to verify valve travel are as follows:

1. De-energizing of the applicable Reactor Protection System (RPS) relays.
2. Reduction of Main Steam Line 3D flow as indicated by control room instruments.
3. Extinguishing of the red indicating light.

Cause of Inoperability

The inoperability of the green light was most likely caused by the failure of a limit switch inside the steam tunnel.

Plan and Schedule for Restoration to Operable Status

A work order has been written to repair the circuit. This repair cannot be accomplished during power operation due to prohibitively high radiation levels in the steam tunnel. The repair is planned for the next Unit 3 refueling outage which

is scheduled for the Spring of 2002, although it may be accomplished sooner if it becomes possible during an earlier unplanned shutdown.

There are no commitments contained in this letter. If you have any questions about this report, please telephone me at (256) 729-2636.

Sincerely,

T. E. Abney
Manager of Licensing
and Industry Affairs

cc: Mr. William O. Long, Senior Project Manager
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

Mr. Paul E. Fredrickson, Branch Chief
U.S. Nuclear Regulatory Commission
Region II
61 Forsyth Street, S. W.
Suite 23T85
Atlanta, Georgia 30303

NRC Resident Inspector
Browns Ferry Nuclear Plant
10833 Shaw Road
Athens, Alabama 35611