Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381

March 15, 2013

TS 5.9.8

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Watts Bar Nuclear Plant, Unit 1
Facility Operating License No. NPF-90
NRC Docket No. 50-390

Subject: **Technical Specification (TS) 5.9.8 - Post Accident Monitoring Report (PAM) - Upper Containment Radiation Monitor**

On March 1, 2013, Technical Specification Limiting Condition for Operation (LCO) 3.3.3, Condition B, was entered for inoperability of one PAM channel of the upper containment radiation instrumentation. Condition B requires immediate initiation of a PAM report within 14 days in accordance with Technical Specification 5.9.8. Accordingly, TVA has provided the PAM report in Enclosure 1. A commitment to restore operability is provided in Enclosure 2. Should you require additional information regarding this matter, please contact Ms. Donna Guinn, Site Licensing Manager, at (423) 365-1589.

Respectfully,

Timothy P. Cleary
Site Vice President
Watts Bar Nuclear Plant

Enclosure
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Enclosure
cc (Enclosure):

NRC Regional Administrator - Region II

NRC Senior Resident Inspector - Watts Bar Nuclear Plant

Enclosure 1

Technical Specification 5.9.8
Post Accident Monitoring System Report
Upper Containment Radiation Monitor

Background

On February 1, 2013, at 0658 hours (EDT), the plant entered Limiting Condition of Operability (LCO) 3.3.3, Condition A due to spurious high range spiking on upper containment high range radiation instrument loop 1-LPR-90-272 (PAM Instrument Channel 2). TS Table 3.3.3-1, Function 12, requires that two PAM channels be OPERABLE. Condition A also requires that the channel be restored to OPERABLE status within 30 days. On March 3, 2013, Condition B of LCO 3.3.3 was entered due to failure to meet the Completion Time specified in Condition A. Condition B requires that a report be issued in within 14 days in accordance with TS 5.9.8. PAM Instrument Channel 1 (1-LPR-90-271) has remained OPERABLE during the entire time PAM Channel 2 has been inoperable.

Upper containment radiation loop 1-LRP-90-272 is a PAM Type A, C, and E variable with a category Class 1 Qualification. The upper containment radiation instrument loops provide primary indications (Type A) to allow the reactor operator to take preplanned manually controlled actions for which no automatic action is provided and that are required for safety systems to accomplish their safety functions for Chapter 15 design basis events. They are also key variables (Type C) that indicates the accomplishment of required safety functions and the magnitude of the release of radioactive materials (Type E).

Preplanned Alternate Method of Monitoring

Radiation Instrument Loop 1-LPR-90-272 is functioning at this time and is providing valid data. Although functional, this channel will not be declared OPERABLE until repairs are made and sufficient time has elapsed to confirm that the spurious high range spiking has been resolved. This issue has been entered into the Corrective Action Program as PER 691431. Upper containment high range radiation monitoring is currently performed by instrument loop 1-LPR-90-271 (PAM Instrument Channel 2) which is OPERABLE and has remained operable during this time.

The Cause of the Inoperability

The most probable cause of spiking is due to high impedance caused by a loose or deteriorating connector(s) in the main control room board and is most likely due to aging.

Plans and Schedule for Restoring Function to Operable Condition

TVA plans to restore Instrument Loop 1-LPR-90-272 operability by repairing the connector(s) and monitoring for spurious indications. The instrument loop will be monitored until sufficient time (based on previous trend data) has elapsed such that plant operators confirm that the spurious operation experienced has been resolved.

Enclosure 2

Technical Specification 5.9.8
Post Accident Monitoring System Report
Upper Containment Radiation Monitor

Commitment

Upper Containment Radiation Instrument Loop 1-LPR-90-272 will be repaired within 30 days from the date of this letter and monitored until sufficient time has elapsed such that plant operators confirm that the spurious high range spiking has been resolved.