



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

August 21, 2014

10 CFR 55.5
TS 5.7.2.15

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) 5.7.2.15 - Explosive Gas and Storage Tank Radioactivity Monitoring Program**

The program requirements for the Waste Gas Holdup System are specified in TS 5.7.2.15 and are implemented in Technical Instruction TI-266, Explosive Gas and Storage Tank Radioactivity Monitoring Program. On June 11, 2014, the oxygen analyzer for the Waste Gas Holdup System was declared inoperable. Section 2.5 of TI-266 specifies that a special report be prepared if the inoperable condition exist for a period of 30 days continuously. This special report is provided in Enclosure 1.

There are no new regulatory commitments in this letter. If you have any questions, please contact Gordon Arent, Director of Watts Bar Site Licensing, at (423) 365-2004.

Respectfully,

A handwritten signature in blue ink, appearing to read "Kevin T. Walsh", is positioned below the word "Respectfully,".

Kevin T. Walsh
Site Vice President
Watts Bar Nuclear Plant

Enclosure
cc: See Page 2

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Enclosure
cc (Enclosure):

NRC Regional Administrator - Region II
NRC Senior Resident Inspector - Watts Bar Nuclear Plant
NRC Project Manager – Watts Bar Nuclear Plant
Institute of Nuclear Power Operations

Enclosure 1

Technical Specification 5.7.2.15 Waste Gas Monitoring System Special Report

Background

The Waste Gas Oxygen Analyzer (WGA) 0-XIC-43-450 is used to monitor the oxygen content in the Waste Disposal System (WDS) to preclude potentially explosive gas mixture from accumulating in the WDS.

On June 11, 2014 a Service Request (SR) 897384 (PER 909699) was written to document that the WGA failed calibration. The WGA was considered inoperable because automatic oxygen measuring capabilities and associated alarm capabilities no longer existed. Technical Instruction TI-266, Explosive Gas and Storage Tank Radioactivity Monitoring Program, Section 2.5 states:

A special report to the NRC shall be prepared if any of the following conditions exist for a period of 30 days continuously:

- Any sample point on 0-XIC-43-450 (Waste Gas Oxygen Analyzer) is inoperable
- Loss of alarm capabilities associated with 0-XIC-43-450 or 0-XR-43-232
- 0-O2AN-43-227 (Waste Gas Compressor Oxygen Analyzer) is inoperable

This report should identify the cause of inoperability, actions taken to restore the monitor(s)/alarm functions to operability and a summary of the actions taken to prevent recurrence.

Cause of Inoperability

The most probable cause why the WGA failed was due to degradation of the oxygen sensor 0-O2E-43-450. The degradation was most likely due to aging.

Actions Taken to Restore Monitor(s)/Alarm Functions to Operable Condition

Upon loss of the WGA, Operations secured the Waste Gas Compressors and Chemistry performed surveillance instruction 0-SI-77-3 to collect grab samples from the in-service Waste Gas Decay Tank on a daily bases. The oxygen sensor was replaced and a conditional calibration (0-SI-43-212) was successfully performed. The WGA was return to service on 07/23/14. No loss of safety function occurred because the surveillance requirement provided adequate assurance that there was no potential for explosive gas mixture to accumulate in the WDS.

Summary of Actions Taken to Prevent Recurrence

To prevent recurrence the Chemistry Department coordinated with the Materials Group to increase stocking levels of the oxygen sensor (0-O2E-43-450) and a Long Term Asset Management (LTAM) Item, WBN-14-0568, was written to address WGA (0-XIC-43-450) obsolescence.