



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

July 15, 2020
WBL-20-028

10 CFR 50.4

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

Watts Bar Nuclear Plant, Units 1 and 2
Facility Operating License Nos. NPF-90 and NPF-96
NRC Docket Nos. 50-390 and 50-391

Subject: **30-Day Voluntary Report in Accordance with Industry Groundwater Protection Initiative**

The Tennessee Valley Authority (TVA) is submitting the attached voluntary 30-day report in accordance with Nuclear Energy Institute (NEI) 07-07, "Industry Groundwater Protection Initiative – Final Guidance Document." A sample obtained from one groundwater monitoring well at Watts Bar Nuclear Plant (WBN) contained tritium at a concentration that exceeded the threshold value for voluntary reporting in accordance with NEI 07-07. The initial NRC notification of this condition was completed on June 22, 2020.

There are no new regulatory commitments in this letter. Please direct any questions concerning this matter to Brian Watson, WBN Chemistry Manager, at (423) 365-3262.

Respectfully,

A handwritten signature in black ink, appearing to read "Anthony L. Williams IV", is written over a large, loopy oval-shaped scribble.

Anthony L. Williams IV
Site Vice President
Watts Bar Nuclear Plant

Enclosure
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cc (Enclosure):

NRC Regional Administrator - Region II
NRC Senior Resident Inspector - Watts Bar Nuclear Plant
NRC Project Manager - Watts Bar Nuclear Plant
Tennessee Radiological Health Department Director
Tennessee Department of Environmental Conservation Senior Director - Water
Programs
Rhea County Emergency Services Chief

Enclosure
30-Day Voluntary Report

Description of Event

On June 19, 2020, Watts Bar Nuclear Plant (WBN) received analyses results from one groundwater monitoring well that had been sampled in support of the Nuclear Energy Institute (NEI) Industry Groundwater Protection Initiative (GPI). The analysis determined that tritium levels exceeded the NEI voluntary reporting threshold of 20,000 pico-Curies/liter (pCi/L) for Monitoring Well 9 (MW-09), which is located inside the plant Protected Area (PA). In accordance with the NEI guidance, reports to required agencies were made on the next business day, June 22, 2020. The following information is provided consistent with the NEI reporting guidelines:

- i. This voluntary special 30-day report is submitted in accordance with NEI 07-07, "Industry Ground Water Protection Initiative - Final Guidance," Revision 1.
- ii. The tritium activity level in well MW-09 was determined by confirmatory analysis to be 29,900 pCi/L.
- iii. Initial actions taken by the plant included notification of the Tennessee Department of Environmental Conservation, the Tennessee Radiological Health Department, Rhea County Emergency Services, and the Nuclear Regulatory Commission. A team was established to perform walkdowns and inspections to identify the cause of the exceedance. The cause was identified as a small leak from a Tritiated Water Storage Tank (TWST) valve into the TWST sump. The leak was corrected and additional groundwater monitoring was performed in the vicinity. An experienced vendor is also assisting WBN in actions to monitor and remediate the condition.
- iv. Monitoring of the site's effluent pathways for tritium at the site boundary indicates that tritium in the groundwater has not migrated off the plant property. The location of the exceedance was adjacent to the plant. The groundwater in the area moves towards the site's French drain system and will be discharged via permitted pathway. Thus, this exceedance is not a source of dose to a member of the public.
- v. Since there is no estimated annual dose increase to a member of the public from the groundwater pathway, no corrective actions are necessary to reduce the projected annual dose to a member of the public to less than the limits of 10 CFR 50, Appendix I of 5 mrem to the total body or any organ. WBN will continue to monitor the condition and initiate any additional corrective actions as needed.