



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

July 18, 2016

10 CFR 50.4

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

Browns Ferry Nuclear Plant (BFN), Units 1, 2, and 3
Renewed Facility Operating License Nos. DPR-33, DPR-52,
and DPR-68
NRC Docket Nos. 50-259, 50-260, and 50-296

Subject: **Voluntary Reporting of High Groundwater Tritium Levels**

Reference: Event Notification (EN) from TVA to NRC, "EN #52025: Offsite Notification due to Elevated Tritium Levels On-site," completed on June 20, 2016.

This voluntary 30-day report is being made in accordance with Nuclear Energy Institute document 07-07, Industry Ground Water Protection Initiative. On June 17, 2016, the Tennessee Valley Authority (TVA) received results from a routine well sample, which indicated elevated tritium levels in one of the 22 on-site groundwater monitoring wells. Based on groundwater well sampling results at BFN, TVA has voluntarily reported to federal and state agencies a tritium level of 21,400 picocuries per liter from an on-site monitoring well. This tritium level exceeds the BFN Radioactive Effluent Monitoring Program threshold value, for voluntary reporting in accordance with NEI 07-07, of 20,000 picocuries per liter. On June 20, 2016, a four-hour Event Notification (Reference) was made to the NRC in accordance with 10 CFR 50.72(b)(2)(xi).

The most likely cause of the elevated tritium levels was stopped floor drains in the BFN, Unit 2, Steam Tunnel. This allowed standing water to accumulate in the Steam Tunnel and leak into the ground. TVA has taken immediate actions to address the apparent leak following the detection of elevated tritium levels from on-site groundwater monitoring wells. These actions include unstopping Steam Tunnel floor drains and monitoring affected wells on an increased frequency. No elevated tritium levels have been detected from off-site monitoring locations, and the public is not at risk.

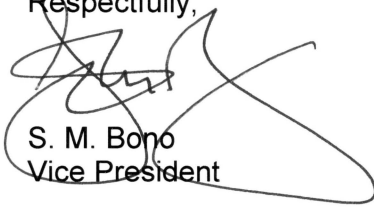
There are no new commitments contained in this letter. If you have any questions please contact Jamie L. Paul at (256) 729-2636.

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Respectfully,

A handwritten signature in black ink, appearing to read 'S. M. Bono', is written over the typed name and title. The signature is stylized and somewhat illegible due to its cursive nature.

S. M. Bono
Vice President

cc:

NRC Regional Administrator - Region II
NRC Senior Resident Inspector - Browns Ferry Nuclear Plant