



Post Office Box 2000, Decatur, Alabama 35609-2000

May 01, 2023

10 CFR 50.54(q)  
10 CFR 50, Appendix E  
10 CFR 72.44(f)

ATTN: Document Control Desk  
Director, Division of Fuel Management  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Browns Ferry Nuclear Plant, Units 1, 2, and 3  
Renewed Facility Operating License Nos. DPR-33, DPR-52, and DPR-68  
NRC Docket Nos. 50-259, 50-260, 50-296, and 72-052

Subject: **Browns Ferry Nuclear Plant - Site Emergency Plan Implementing Procedure Revision**

In accordance with the requirements of Title 10 of the Code of Federal Regulations (10 CFR) 50.54(q); 10 CFR 50, Appendix E; and 10 CFR 72.44(f), the Tennessee Valley Authority (TVA) is submitting a description of changes to the Browns Ferry Nuclear Plant (BFN) Radiological Emergency Plan (REP). The affected document is the BFN Emergency Plan Implementing Procedure (EPIP) named below.

<u>EPIP</u>	<u>Revision</u>	<u>Title</u>	<u>Effective Date</u>
EPIP-1	0066	Emergency Classification Procedure	4/01/2023
EPIP-2	0045	Notification of Unusual Event	4/01/2023
EPIP-3	0048	Alert	4/01/2023
EPIP-4	0048	Site Area Emergency	4/01/2023
EPIP-5	0062	General Emergency	4/01/2023

### **Description of Changes and Summary of Analysis**

EPIP-1 Revision 66 updates Initiating Conditions (ICs) RG1, RS1, RA1, and RU1 based on design output from calculation MDQ0000902015000486. The revision to the calculation updates values based on revision to the Offsite Dose Calculation Manual (ODCM), reflects NEI 99-01 methodology instead of NESP, and recalculates table values using the same methodology as other TVA sites. Emergency Action Level (EAL) values for all four emergency classes are calculated for four different types of radiation monitors and determined if the radiation monitors are on-scale or off-scale for each EAL value. This revision to the calculation caused Stack Noble Gas (WRGERMS) values to change for ICs RG1, RS1, RA1, and RU1. The following values were updated for all rad monitors listed in RU1:

- Eberline Continuous Air Monitors (CAM) (RM-90-249, -250, -251, -252)
- GE Stack Gas Radiation Monitor (RM-90-147/148)
- Offgas Pretreatment Radiation Monitor (1,2,3-RM-90-157)

In addition, the updated values for the Eberline CAM (RM-90-249, -250, -251, -252) are now on-scale for RA1. As a result, the monitors were added to EAL (1) for RA1.

EPIP-2 Revision 45, EPIP-3 Revision 48, EPIP-4 Revision 48, and EPIP-5 Revision 62 update the values used in the Radiological Release Determination Guidance in Section 2.0 of Attachments 1, 9 (EIPs-2, 3 and 4), and 11 (EPIP-5). These changes are based on updates to the design output from calculation MCQ0000902015000486, which is based on revision to the ODCM and consists of the EAL values for all four emergency classes.

These changes were determined to be changes to the REP that were not editorial or typographical in nature. These changes were also determined to not conform to activities that had prior NRC approval. Planning Standards 10 CFR 50.47(b)(4) – Emergency Classification System, 50.47(b)(5) – Notification Methods and Procedures, and 50.47(b)(9) – Accident Assessment were impacted by these changes; therefore, it was concluded that the changes could not be implemented without performing a 50.54(q) reduction in effectiveness evaluation. Upon completion of the Effectiveness Evaluation Form for these changes, it was concluded that the changes continue to comply with the requirements of 50.47(b) and 50 Appendix E, and that the changes do not constitute a reduction in effectiveness. Therefore, these changes were allowed to be implemented without prior NRC approval.

There are no new regulatory commitments in this letter. If you have any questions regarding this submittal, please contact B. F. Tidwell at (256) 729-3666.

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Respectfully,

A handwritten signature in black ink, appearing to read 'MS', is positioned above the printed name.

Manu Sivaraman  
Site Vice President

cc:

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