



Post Office Box 2000, Decatur, Alabama 35609-2000

May 31, 2022

10 CFR 72.210
10 CFR 72.44(d)(3)
10 CFR 72.4

ATTN: Document Control Desk
Director, Division of Spent Fuel Management
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 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, 72-052

Subject: **Independent Spent Fuel Storage Installation Annual Radioactive Effluent Release Report**

The Browns Ferry Nuclear Plant (BFN) Independent Spent Fuel Storage Installation (ISFSI) complies with Certificate of Compliance (CoC) 1014 and 1032 for spent fuel storage casks in accordance with Title 10 of the Code of Federal Regulations (10 CFR) Part 72, Section 212, "Conditions of general license issued under § 72.210." CoC 1014 Appendix A, Section 5.4, and CoC 1032 Appendix A, Section 5.1, require the submittal of an Annual Radioactive Effluent Release Report (ARERR) in accordance with 10 CFR Part 72.44(d)(3). In accordance with 10 CFR 72.44(d)(3), the ISFSI ARERR must be submitted within 60 days after the end of the 12-month monitoring period. The enclosed BFN ISFSI ARERR is for April 1, 2021, through March 31, 2022.

The Tennessee Valley Authority (TVA) utilizes the Holtec International HI-STORM 100 Cask System for storage of spent fuel in the BFN ISFSI. The HI-STORM 100 Cask System does not create any radioactive material or have any radioactive waste treatment system. Therefore, specific operating procedures for the control of radioactive effluents are not required. The HI-STORM 100 Cask System is also designed and fabricated with a totally seal-welded pressure vessel such that leakage from the confinement boundary is not considered to be a credible occurrence.

As of July 20, 2015, TVA also utilizes the Holtec International HI-STORM FW Cask System for storage of spent fuel in the BFN ISFSI. The HI-STORM FW Cask System does not create any radioactive material or have any radioactive waste treatment system. Therefore, specific operating procedures for the control of radioactive effluents are not required. The HI-STORM FW Cask System is also designed and fabricated with a totally seal-welded pressure vessel such that leakage from the confinement boundary is not considered to be a credible occurrence.

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There were no radionuclides released to the environment in liquid or gaseous effluents from the BFN ISFSI during the reporting period of April 1, 2021, to March 31, 2022.

There are no new regulatory commitments contained in this letter. Should you have any questions concerning this submittal, please contact C. L. Vaughn, Nuclear Site Licensing Manager, at (256) 729-2636.

Respectfully,

A handwritten signature in black ink, appearing to read 'M. Rasmussen', with a long horizontal flourish extending to the right.

Matthew Rasmussen
Site Vice President

Enclosure: Browns Ferry Nuclear Plant Independent Spent Fuel Storage Installation
Annual Radioactive Effluent Release Report

cc (w/ Enclosures):

NRC Regional Administrator - Region II

NRC Senior Resident Inspector - Browns Ferry Nuclear Plant

NRC Project Manager - Browns Ferry Nuclear Plant

ENCLOSURE

**Browns Ferry Nuclear Plant
Units 1, 2, and 3**

**Independent Spent Fuel Storage Installation
Annual Radioactive Effluent Release Report**

See Enclosed

ENCLOSURE

**Browns Ferry Nuclear Plant
Independent Spent Fuel Storage Installation
Annual Radioactive Effluent Release Report**

April 1, 2021, through March 31, 2022

<p><u>Independent Spent Fuel Storage Installation:</u></p> <p>The Browns Ferry Nuclear Plant (BFN) Independent Spent Fuel Storage Installation (ISFSI) is located within the BFN Protected Area and is designed to hold 96 Holtec International HI-STORM 100 or HI-STORM FW storage casks. The BFN ISFSI contains 45 HI-STORM 100 storage casks and 53 HI-STORM FW storage casks as of the end of the March 31, 2022, reporting period. No additional items were placed in storage during this period.</p>	<p style="text-align: center;">98 Total Casks</p>
<p><u>Airborne Effluent Releases from the ISFSI:</u></p> <p>There were no known airborne effluent releases from the BFN ISFSI during the period April 1, 2021, to March 31, 2022.</p>	<p style="text-align: center;">0.00E+00 Curies</p>
<p><u>Liquid Effluent Releases from the ISFSI:</u></p> <p>There were no known liquid effluent releases from the BFN ISFSI during the period April 1, 2021, to March 31, 2022.</p>	<p style="text-align: center;">0.00E+00 Curies</p>
<p><u>Dose to Individuals Due to ISFSI Effluent Releases:</u></p> <p>There was no known dose to individuals due to effluent releases from the BFN ISFSI during the period April 1, 2021, to March 31, 2022.</p>	<p style="text-align: center;">0.00E+00 mrem</p>