



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

September 11, 2013

10 CFR 72.4
10 CFR 72.48(d)(2)

ATTN: Document Control Desk
Director, Division of Spent Fuel Storage and Transportation
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 No. DPR-33, DPR-52, and DPR-68
NRC Docket Nos. 50-259, 50-260, and 50-296

Subject: **10 CFR 72.48 Changes, Tests, and Experiments, Biennial Summary Report Associated with the Independent Spent Fuel Storage Installation**

In accordance with the requirements of Title 10 of the Code of Federal Regulation (10 CFR) 72.48(d)(2), Tennessee Valley Authority is providing a summary report of changes, tests, and experiments performed at Browns Ferry Nuclear Plant, Units 1, 2, and 3 from September 1, 2011, until June 30, 2013, associated with the Independent Spent Fuel Storage Installation.

There are no regulatory commitments associated with this letter. If you have any questions, please contact Edward Schrull at (423) 751-3850.

Respectfully,

Joseph Shea
Vice President, Nuclear Licensing

Enclosure: 10 CFR 72.48 Changes, Tests, and Experiments Summary Report

cc (w/ Enclosure):

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

LM5526

ENCLOSURE

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

10 CFR 72.48 Changes, Tests, and Experiments Summary Report

**Tennessee Valley Authority
Browns Ferry Nuclear Plant
Units 1, 2, and 3
10 CFR 72.48 Summary Report**

EDC No. 70586A, 10 CFR 72.48 Evaluation, Revision 0 (R06 120611 608)

Executive Summary:

Tennessee Valley Authority (TVA) drawing 0-47E201-1 establishes actions to take for Independent Spent Fuel Storage Installation (ISFSI) operations coincident with a Title 10 of the Code of Federal Regulations (10 CFR) Part 50 Loss of Coolant Accident/Loss of Offsite Power (LOCA)/(LOOP). The ISFSI accident which could take place during this time is a failure of the Supplemental Cooling System (SCS). The required actions have been reviewed within TVA calculation NDQ000020050011 to determine if they are achievable within certain time frames. Mission dose is also addressed within this calculation.

The conclusion is that the actions are achievable and that there is sufficient time to perform the necessary actions without exceeding regulatory dose limits.

Summary of Evaluation:

New actions are provided to address dry cask operations coincident with a 10 CFR 50 LOCA/LOOP. These actions are incorporated into plant procedures to instruct personnel on steps necessary to place a Multipurpose Canister (MPC) in a HI-TRAC transfer cask in a safe condition in the event a LOCA or LOOP occurs during dry cask operations. This demonstrates compliance with 10 CFR 72.122(d) and (k). Drawing 0-47E201-1 is being revised to provide the necessary action to take coincident with a 10 CFR 50 LOCA/LOOP. The new actions are required to maintain the SCS operable and in compliance with the Holtec Technical Specifications to perform its Holtec Final Safety Analysis Report (FSAR) described design function following a coincident LOCA/LOOP.

The conclusion of this evaluation is that prior NRC approval is not necessary for implementation of this change. Based upon the results of this evaluation, implement the activity per plant procedures without obtaining a Licensing Amendment.

**Tennessee Valley Authority
Browns Ferry Nuclear Plant
Units 1, 2, and 3
10 CFR 72.48 Summary Report**

EDC No. 70586A, 10 CFR 72.48 Evaluation, Revision 1 (R06 120814 692)

Executive Summary:

TVA drawing 0-47E201-1 establishes actions to take for ISFSI operations coincident with a 10 CFR 50 LOCA/LOOP. The ISFSI accident which could take place during this time is a failure of the SCS. The required actions have been reviewed within TVA calculation NDQ000020050011 to determine if they are achievable within certain time frames. Mission dose is also addressed within this calculation.

Revision 1 evaluates the addition of new TVA drawing 0-47E201-4 depicting equipment to supply water to the MPC and to discharge water/steam from the MPC during unloading operations. A partially submerged stainless steel hood captures steam bubbles that break the surface. A vent is provided on the hood to direct the gas to the nearest exhaust ductwork to capture radiological gas or particles.

The conclusion is that the actions are achievable and that there is sufficient time to perform the necessary actions without exceeding regulatory dose limits.

Summary of Evaluation:

New actions are given to address dry cask operations coincident with a 10 CFR 50 LOCA/LOOP. These actions are incorporated into plant procedures to instruct personnel on steps necessary to place an MPC in a HI-TRAC transfer cask in a safe condition in the event a LOCA or LOOP occurs during dry cask operations. This demonstrates compliance with 10 CFR 72.122(d) and (k). Drawing 0-47E201-1 is being revised to provide the necessary action to take coincident with a 10 CFR 50 LOCA/LOOP. The new actions are required to maintain the SCS operable and in compliance with the Holtec Technical Specifications to perform its Holtec FSAR described design function following a coincident LOCA/LOOP.

The conclusion of this evaluation is that prior NRC approval is not necessary for implementation of this change. Based upon the results of this evaluation, implement the activity per plant procedures without obtaining a Licensing Amendment.