



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

CNL-17-023

February 1, 2017

10 CFR 50.4

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

Sequoyah Nuclear Plant, Units 1 and 2
Facility Operating Licenses Nos. DPR-77 and DPR-79
NRC Docket Nos. 50-327 and 50-328

Watts Bar Nuclear Plant, Unit 1
Facility Operating License No. NPF-90
NRC Docket No. 50-390

Subject: **CHANGE IN COMMITMENT RELATED TO EXTERNAL FLOODING CONCERNS (TAC NOS. ME8805, ME8806 AND ME8807)**

- References:
1. Letter from TVA to NRC, "Commitments Related to Updated Hydrologic Analysis Results for Sequoyah Nuclear Plant, Units 1 and 2, and Watts Bar Nuclear Plant, Unit 1," dated June 13, 2012 (ML12171A053)
 2. Letter from NRC to TVA, "Confirmatory Action Letter - Watts Bar Nuclear Plant, Unit 1, and Sequoyah Nuclear Plant, Units 1 and 2, Commitments to Address External Flooding Concerns (TAC Nos. ME8805, ME8806, and ME8807)," dated June 25, 2012 (ML12165A527)
 3. Letter from TVA to NRC, "Change in Commitment Related to External Flooding Concerns" dated April 25, 2014 (ML14122A219)
 4. Letter from NRC to TVA, "Watts Bar Nuclear Plant, Unit 1 - Issuance of Amendment to Revise Updated Final Safety Analysis Report Regarding Changes to Hydrology Analysis (TAC No. ME9130)," dated January 28, 2015 (ML 15005A314)
 5. Letter from J. W. Shea, TVA, to NRC, CNL-16-142, "Application to Modify Operating License Conditions for Watts Bar Nuclear Plant, Units 1 and 2 Regarding the Completion of Permanent Modifications to the Fort Loudoun Dam (WBN-TS-16-12)," dated September 23, 2016 (ML16271A378)

6. Letter from NRC to TVA, "Watts Bar Nuclear Plant, Units 1 and 2 - Issuance of Amendments Regarding Completion of Permanent Modifications to the Fort Loudoun Dam (CAC Nos. MF8412 and MF8413)," dated January 11, 2017 (ML116354A024)

By letter dated June 13, 2012 (Reference 1), the Tennessee Valley Authority (TVA) provided to the Nuclear Regulatory Commission (NRC) a list of commitments related to TVA's updated hydrologic analysis for Sequoyah Nuclear Plant (SQN), Units 1 and 2, and Watts Bar Nuclear Plant (WBN), Unit 1. On June 25, 2012, the NRC issued to TVA a Confirmatory Action Letter (Reference 2) regarding these commitments. In Reference 3, TVA notified the NRC that TVA was extending the completion date for the modifications to the Fort Loudoun Dam to February 1, 2017.

By letter dated January 28, 2015 (Reference 4), the NRC approved a license amendment for WBN Unit 1 to revise the Updated Final Safety Analysis Report regarding changes to Hydrology Analysis. This letter also added license condition 2.C.(9) (b) to the WBN Unit 1 Operating License that stated "TVA shall implement permanent modifications to prevent overtopping of the embankments of the Fort Loudoun Dam due to the Probable Maximum Flood by February 1, 2017."

By letter dated September 23, 2016 (Reference 5), TVA submitted a license amendment request for WBN Units 1 and 2 to extend the completion date of the modifications to the Fort Loudoun Dam to June 30, 2018. The NRC subsequently approved that LAR by letter dated January 11, 2017 (Reference 6).

Reference 2 requires TVA to notify the NRC if, for any reason, the actions cannot be completed within the specified schedule and to advise the NRC in writing of TVA's modified schedule in advance of the change.

By the Reference 6 letter, the NRC approved the technical justification for extending the completion date of the Fort Loudoun Dam modifications. The purpose of this letter is to notify the NRC that TVA is also revising the completion date for Commitment 14 of Reference 3 to June 30, 2018, to be consistent with the revised license condition date approved in Reference 6.

TVA will continue to conduct the temporary modification inspections described in Commitment 7 of Reference 3 for Fort Loudoun Dam until the permanent modifications are completed. In addition, Commitments 13, 15, and 16, related to dam modifications have been completed. Accordingly, the enclosure to this letter provides a complete update of the 16 commitments contained in Reference 3.

If you have questions regarding this update, please contact Edward D. Schroll at (423) 751-3850.

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Respectfully,

A handwritten signature in black ink, appearing to read "J. W. Shea for".

J. W. Shea
Vice President, Nuclear Licensing

Enclosure: Updated Status of the Commitments Associated With Confirmatory Action
Letter No. NRR-12-001

cc (Enclosures):

NRC Regional Administrator - Region II
NRR Director - NRC Headquarters
NRC Senior Resident Inspector - Sequoyah Nuclear Plant
NRC Senior Resident Inspector - Watts Bar Nuclear Plant
NRR Project Manager - Sequoyah Nuclear Plant
NRR Project Manager - Watts Bar Nuclear Plant

ENCLOSURE

**UPDATED STATUS OF THE COMMITMENTS ASSOCIATED WITH
CONFIRMATORY ACTION LETTER NO. NRR-12-001**

ENCLOSURE

By Confirmatory Action Letter dated June 25, 2012 (ML12165A527), the NRC confirmed TVA commitments made in the letter from TVA to NRC, "Commitments Related to Updated Hydrologic Analysis Results for Sequoyah Nuclear Plant (SQN), Units 1 and 2, and Watts Bar Nuclear Plant (WBN), Unit 1," dated June 13, 2012 (ML12171A053). This enclosure provides a written status of the 16 commitments described in the Confirmatory Action Letter.

Commitment 1 (Complete)

TVA will submit a License Amendment Request to update the WBN, Unit 1 Updated Final Safety Analysis Report to reflect the updated hydrologic analysis methods and results, including the analysis of the rim leakage paths discussed at the May 31, 2012, public meeting between TVA and NRC staff.

Commitment 2 (Complete)

TVA will submit a License Amendment Request to update the SQN, Units 1 and 2, Updated Final Safety Analysis Report to reflect the updated hydrologic analysis methods and results, including the analysis of the rim leakage paths discussed at the May 31, 2012, public meeting between TVA and NRC staff.

Commitment 3 (Complete)

TVA will issue and initially perform a procedure for a semi-annual inspection of the compensatory measure for flood protection of the WBN, Unit 1 Thermal Barrier Booster pumps and motors. The inspection will verify:

- a. The condition of the permanent building attachments; and*
- b. The inventory, storage, physical protection, and condition of the materials and consumables required for erection of the temporary flood protection panels during a postulated PMF [probable maximum flood] event.*

Inspections will continue until the compensatory measure is replaced by a permanent plant modification.

Commitment 4 (Complete)

TVA will issue and initially perform a procedure for a semi-annual inspection to verify the condition of the SQN, Units 1 and 2, Spent Fuel Pit Cooling Pump Enclosure caps. Inspections will continue until the design change is completed to document the SQN, Units 1 and 2, Spent Fuel Pit Cooling Pump Enclosure caps as a permanent plant feature.

Commitment 5 (Complete)

TVA will issue and initially perform a procedure for a semiannual inspection to verify the inventory, storage, physical protection, and condition of the materials and consumables required to implement the compensatory measure for the common SQN, Units 1 and 2, Diesel Generator Building. Inspections will continue until the compensatory measure is replaced by a permanent plant modification.

ENCLOSURE

Commitment 6 (Complete)

TVA will perform an analysis of the Design Basis Flood for SQN, Units 1 and 2, and WBN, Unit 1 that assumes a failure of a section of the HESCO flood barriers [sand baskets] and earthen embankments at Fort Loudon, Cherokee, Tellico, and Watts Bar dams.

Commitment 7 (Implemented)

TVA's Nuclear Power Group will issue and initially perform procedures for semi-annual inspections of the temporary HESCO flood barriers installed at Cherokee, Fort Loudon, Tellico, and Watts Bar reservoirs. These inspections will:

- a. Ensure the temporary HESCO flood barriers remain in place and are not structurally degraded as specified by the manufacturer's written specifications and recommendations;*
- b. Verify the inventory and staging of the material required to fill the gaps that exist; and,*
- c. Ensure that adequate physical security (e.g., fences and locks) is provided for the staged material against theft.*

These inspections will continue until a permanent modification is implemented to prevent overtopping the Cherokee, Fort Loudon, Tellico, and Watts Bar dams due to the Probable Maximum Flood.

Commitment 7 is tied to the completion of Commitments 13, 14, 15, and 16. Commitment 7 has been partially satisfied by the implementation of NPG-NETP-121, "Inspection of Dam Temporary Modular Flood Barriers (WBH, FLH, TEC, and CRH)," on August 23, 2012. The commitment to perform inspections of the HESCO barriers will remain in effect until the permanent dam modifications Commitment 14 is complete allowing HESCO barrier removal.

Commitment 8 (Complete)

TVA will install a permanent plant modification to provide flood protection with respect to the Design Basis Flood level for WBN, Unit 1 Thermal Barrier Booster pumps and motors.

Commitment 9 (Complete)

TVA will install a permanent plant modification to provide flood protection with respect to the Design Basis Flood level for WBN, Unit 1 Spent Fuel Pit Cooling pumps and motors.

Commitment 10 (Complete)

TVA will install a permanent plant modification to provide flood protection with respect to the Design Basis Flood level for the common SON, Units 1 and 2, Diesel Generator Building.

Commitment 11 (Complete)

TVA will implement the design change to document the SON, Units 1 and 2, Spent Fuel Pit Cooling Pump Enclosure caps a as a permanent plant feature.

ENCLOSURE

Commitment 12 (Complete)

TVA will provide the results of the evaluation conducted in compliance with the National Environmental Policy Act (NEPA) Environmental Impact Statement (EIS) Status to define the permanent modifications to prevent overtopping the embankments of the Cherokee, Fort Loudon, Tellico, and Watts Bar dams.

Commitment 13 (Complete)

TVA will implement permanent modifications to prevent overtopping of the embankments of the Cherokee Dam due to the Probable Maximum Flood. The final solution will be established in an evaluation conducted in compliance with the National Environmental Policy Act (NEPA) Environmental Impact Statement (EIS).

Commitment 14 (Open)

TVA will implement permanent modifications to prevent overtopping of the embankments of the Fort Loudon Dam due to the Probable Maximum Flood. The final solution will be established in an evaluation conducted in compliance with the National Environmental Policy Act (NEPA) Environmental Impact Statement (EIS).

TVA is informing the NRC of an extension of the commitment completion date to June 30, 2018.

Commitment 15 (Complete)

TVA will implement permanent modifications to prevent overtopping of the embankments of the Tellico Dam due to the Probable Maximum Flood. The final solution will be established in an evaluation conducted in compliance with the National Environmental Policy Act (NEPA) Environmental Impact Statement (EIS).

Commitment 16 (Complete)

TVA will implement permanent modifications to prevent overtopping of the embankments of the Watts Bar Dam due to the Probable Maximum Flood. The final solution will be established in an evaluation conducted in compliance with the National Environmental Policy Act (NEPA) Environmental Impact Statement (EIS)