



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

June 13, 2012

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  
NRC Docket Nos. 50-327 and 50-328  
Facility License Nos. DPR-77 and DPR-79

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

**Subject: Commitments Related to Updated Hydrologic Analysis Results for Sequoyah Nuclear Plant, Units 1 and 2, and Watts Bar Nuclear Plant, Unit 1**

**Reference: NRC Meeting Summary, "Summary of May 31, 2012, Senior Management Meeting with Tennessee Valley Authority on the Licensing Basis for Flooding/Hydrology," dated June 6, 2012**

On May 31, 2012, Tennessee Valley Authority (TVA) met with the NRC Staff to discuss issues regarding the updated hydrologic analysis for Sequoyah Nuclear Plant (SQN), Units 1 and 2, and Watts Bar Nuclear Plant (WBN), Unit 1. This submittal confirms commitments discussed during the May 31, 2012 public meeting, and in a subsequent teleconference with NRC Staff conducted on June 5, 2012.

As discussed at the May 31, 2012 meeting, TVA is completing a review of a hydrologic analysis that includes consideration of additional rim leakage paths. At the May 31, 2012 meeting, TVA described the reviews performed of systems, structures, and components possibly impacted by the revised flooding levels in anticipation of the approved results of that analysis. As a result of this review, TVA has staged sandbags at the base of the common WBN, Unit 1, Intake Pumping Structure (IPS). If the need for additional flood protection is established as a result of the final approved rim leakage analysis, established corrective action program requirements would address the need for additional compensatory measures necessary to provide flood protection for the IPS and internal systems and components.

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The enclosure contains a list of new regulatory commitments. Please address any questions regarding this request to Terry Cribbe at (423) 751-3850.

Respectfully,



J.W. Shea

Manager, Corporate Nuclear Licensing

Enclosure:  
List of New Regulatory Commitments

cc (Enclosure):

NRC Regional Administrator - Region II  
NRC Senior Resident Inspector – Watts Bar Nuclear Plant, Unit 1  
NRC Senior Resident Inspector – Sequoyah Nuclear Plant

## **ENCLOSURE**

### **LIST OF NEW COMMITMENTS**

1. By July 20, 2012, 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.
2. By August 10, 2012, 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.
3. By August 31, 2012, 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 event.

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

4. By August 31, 2012, 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.
5. By August 31, 2012, TVA will issue and initially perform a procedure for a semi-annual 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.
6. By August 31, 2012, 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 and earthen embankments at Fort Loudoun, Cherokee, Tellico, and Watts Bar dams.
7. By August 31, 2012, 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 Loudoun, 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;

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### LIST OF NEW COMMITMENTS

- 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 Loudoun, Tellico, and Watts Bar dams due to the Probable Maximum Flood.

- 8. By March 31, 2013, TVA will install a permanent plant modification to provide flood protection with respect to the Design Basis Flood level for the WBN, Unit 1 Thermal Barrier Booster pumps and motors.
- 9. By March 31, 2013, TVA will install a permanent plant modification to provide flood protection with respect to the Design Basis Flood level for the WBN, Unit 1 Spent Fuel Pit Cooling pumps and motors.
- 10. By March 31, 2013, TVA will install permanent plant modification to provide flood protection with respect to the Design Basis Flood level for the common SQN, Units 1 and 2 Diesel Generator Building.
- 11. By March 31, 2013, TVA will implement the design change to document the SQN, Units 1 and 2 Spent Fuel Pit Cooling Pump Enclosure caps as a permanent plant feature.
- 12. By April 30, 2013, 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 Loudoun, Tellico, and Watts Bar dams.
- 13. 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). Based on the current NEPA EIS schedule, these permanent modifications are scheduled to be installed by October 31, 2015.
- 14. TVA will implement permanent modifications to prevent overtopping of the embankments of the Fort Loudoun 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). Based on the current NEPA EIS schedule, these permanent modifications are scheduled to be installed by October 31, 2015.
- 15. 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). Based on the current NEPA EIS schedule, these permanent modifications are scheduled to be installed by October 31, 2015.

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### **LIST OF NEW COMMITMENTS**

16. 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). Based on the current NEPA EIS schedule, these permanent modifications are scheduled to be installed by October 31, 2015.