



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

CNL-18-122

September 28, 2018

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

Watts Bar Nuclear Plant, Units 1 and 2
Facility Operating License Nos. NPF-90 and NPF-96
NRC Docket Nos. 50-390 and 50-391

Subject: Status Regarding the Improved Flood Mitigation System Project

- References:
1. Letter from TVA to NRC, "Notification of Change in Completion Schedule Regarding the Improved Flood Mitigation System Project," dated July 15, 2016 (ML16197A350)
 2. Letter from TVA to NRC, "Status Regarding the Improved Flood Mitigation System Project," dated April 2, 2018 (ML18092B089)
 3. Letter from TVA to NRC, "Request for Review and Approval of Topical Report TVA-NPG-AWA16, "TVA Overall Basin Probable Maximum Precipitation and Local Intense Precipitation Analysis, Calculation CDQ0000002016000041," Revision 1," dated June 22, 2018 (ML18192A510)

By letter dated July 15, 2016, Tennessee Valley Authority (TVA) informed the Nuclear Regulatory Commission (NRC) of a change in the specified field implementation completion schedule to install improved flood mode mitigation systems (FMMS) at the Sequoyah Nuclear Plant (SQN), Units 1 and 2, and the Watts Bar Nuclear Plant (WBN), Units 1 and 2 (Reference 1). The change in the implementation schedule was based on the ongoing TVA project to upgrade precipitation models and rerun hydraulic models to determine new probable maximum flood levels for both design basis and beyond-design-basis purposes.

In a letter dated April 2, 2018 (Reference 2), TVA committed to provide a written update regarding the reevaluated SQN and WBN flood levels using updated precipitation data. The purpose of this letter is to provide that update.

TVA completed an updated precipitation calculation that includes updated data (storm and dew point), meteorological science, technology, weather radar, Geographic Information System (GIS) tools, and treatment of topography. The updated precipitation calculation was submitted to NRC for review by letter dated September 20, 2016 (ML16264A454).

Based on continuing technical discussions regarding some aspects of the precipitation calculation methodology, as well as input assumptions and data, a revision to the calculation was made to resolve several NRC areas of concern. The results reflected a potential precipitation volume/input decrease from the values reflected in the current licensing basis and reevaluated flood hazards for SQN and WBN. The revised updated precipitation calculation was submitted to NRC for review by letter dated June 22, 2018 (Reference 3).

Subsequent to the revision being approved by NRC, the newly revised precipitation data will be used as input into TVA's hydraulic models to determine the resulting flood levels at the SQN and WBN sites. Preliminary results from the hydraulic models used to establish resulting changes in flood levels at the SQN and WBN sites reflect potential decreases in analyzed flood levels at both sites.

Consequently, TVA has concluded it is prudent to defer the field implementation of FMMS until completion of the revised hydraulic modeling. This will allow TVA to determine what appropriate margin, if any, should be designed into additional flood mitigating systems at SQN and WBN. TVA will use the updated precipitation data described above to rerun hydraulic models and determine flood levels. TVA will subsequently update its licensing basis for both SQN and WBN with the analyzed flood levels. Therefore, TVA is revising the Commitment 1 due date (Enclosure 1 of Reference 1) to implement an FMMS at SQN, Units 1 and 2, and WBN, Units 1 and 2, from September 30, 2018, to September 30, 2019.

TVA will provide a written update regarding the reevaluated SQN and WBN flood levels using the revised precipitation data by March 29, 2019.

The enclosure to this letter provides the one revised regulatory commitment and one new regulatory commitment contained in this letter. If additional information is needed regarding this update, please contact Russell Thompson at (423) 751-2567.

Respectfully,



E. K. Henderson
Director, Nuclear Regulatory Affairs

Enclosure

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cc (Enclosure):

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

ENCLOSURE
COMMITMENT

1. TVA will implement an improved flood mode mitigation system at SQN, Units 1 and 2, and WBN, Units 1 and 2, by September 30, 2019. (Revised Commitment)
2. TVA will provide a written update regarding the reevaluated SQN and WBN flood levels using the revised precipitation data by March 29, 2019. (New Commitment)