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

CNL-14-007

January 10, 2014

10 CFR 2.202

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

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

Watts Bar Nuclear Plant, Unit 2
Construction Permit No. CPPR-92
NRC Docket No. 50-391

Subject: Follow-up Response to NRC Request for Additional Information Related to Overall Integrated Plan in Response to the Commission Order Modifying Licenses with Regard to Requirements for Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051) (TAC Nos. MF0951 and MF1178)

Reference: Letter from TVA to NRC, "Response to NRC Request for Additional Information Related to Overall Integrated Plan in Response to the Commission Order Modifying Licenses with Regard to Requirements for Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-051) (TAC Nos. MF0951 and MF1178)," dated November 22, 2013

On November 22, 2013, the Tennessee Valley Authority (TVA) submitted a response to the Nuclear Regulatory Commission (NRC) regarding a request for additional information (RAI) related to the Watts Bar Nuclear Plant (WBN) Overall Integrated Plan for reliable spent fuel pool instrumentation (referenced letter). TVA noted in Enclosure 2 of the referenced letter that some information would be provided by January 10, 2014, as vendor documentation and calculations were in progress. A teleconference was also held on December 19, 2013, between TVA and the NRC regarding additional questions and clarifications to the referenced letter.

The purpose of this letter is to provide a response to regulatory commitment 1 of Enclosure 2 to the referenced letter. This letter also provides responses to questions from the December 19, 2013, teleconference related to RAI questions 1 and 18c.

Regulatory commitment 1a, b, c, and d stated TVA would provide results and notify the NRC that final vendor testing and qualification documentation supporting responses to RAI questions 5, 6, 12, and 15 is available for review. This documentation was scheduled to be complete by December 23, 2013. However, due to EMI/RFI testing issues, this documentation will not be completed until March 10, 2014. The enclosure to this letter revises regulatory commitment 1 to provide the results and notify the NRC that final vendor testing and qualification documentation supporting responses to RAI questions 5, 6, 12, and 15 is available for review by March 14, 2014.

Regulatory commitment 1e and f also stated TVA would provide results of the channel accuracy calculation for RAI questions 16 and 17 and notify the NRC that the calculation is available for review. The results of the calculated value of individual channel accuracy are within the acceptable criteria for any given channel configurations. This calculation is available for review.

During the December 19, 2013, teleconference call, clarification was requested regarding throttling of pump discharge as discussed in response to RAI question 1. Information has been added to the response as underlined below to address this clarification. Sketch 1 has also been revised to include the top and bottom vent elevations as shown. This revised response and Sketch 1 supersede those submitted in the referenced letter.

RAI-1

Please provide the results of the calculation used to determine the water elevation necessary for the pump's required NPSH to confirm that Level 1 has been adequately identified.

TVA Response

Watts Bar Nuclear Plant (WBN) calculation EPM-JPJ-07-192 documents adequate net positive suction head (NPSH) at elevation 749.125 feet (normal pool level) for Spent Fuel Pool (SFP) temperatures up to 190 degrees Fahrenheit (F). Refer to Sketch 3 on page E1-23. During a BDB-EE, as temperatures rise above 190 degrees F, WBN will control by procedure the throttling of pump discharge to ensure adequate NPSH. The calculation detailing this throttling requirement for BDB-EE has not been issued at this time. WBN has documented this action in the Corrective Action Program Problem Evaluation Report (PER) 770244 and the scheduled completion of calculation and procedure update is by February 21, 2014. Throttling is required because the level 1 reference elevation cannot be raised to provide adequate NPSH above 190 degrees F since ventilation ductwork is approximately 0.8 feet (elevation 750.04 feet) above the existing 100% level (refer to Sketch 1). Access to SFP pumps, heat exchangers, and valves can be achieved from the Shutdown Board Room, shown in sketch 1, on elevation 757 through the Auxiliary Building access point and down the central stairway to elevation 737 or from the Auxiliary Building access point on elevation 713 and up the north or central stairway to elevation 737. Valves that would require manipulation based on which train of SFP cooling is being restored are located in the center south area of elevation 737.

Clarification to reference "RAI-7a" in response to RAI question 18c was also requested during the teleconference. This reference should be "RAI-18a" as underlined below in the revised response to RAI 18c. This revised response supersedes the one submitted in the November 22, 2013 letter.

RAI #18

Please provide the following:

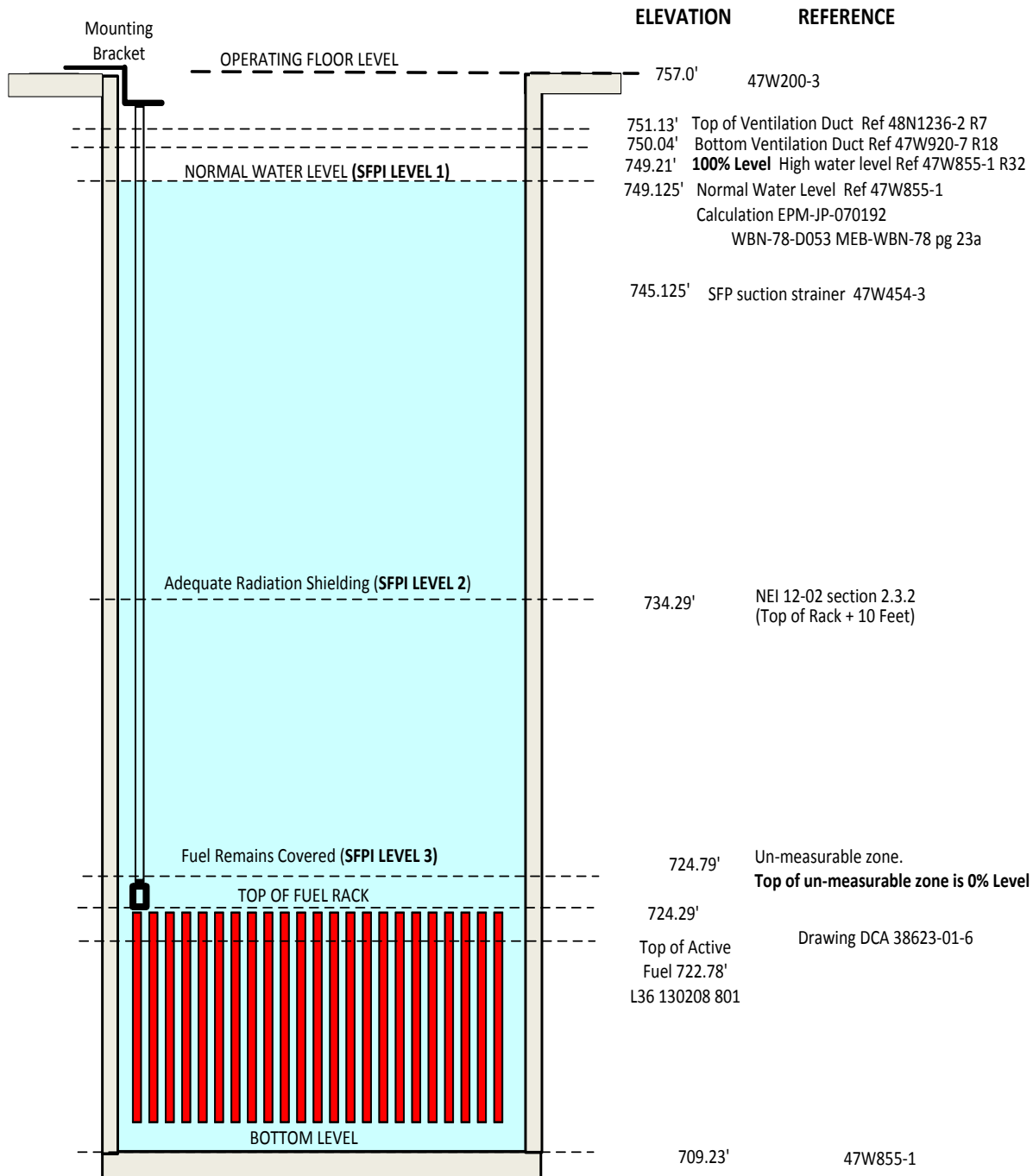
- c) A description of how calibration tests and functional checks will be performed and the frequency at which they will be conducted. Discuss how these surveillances will be incorporated into the plant surveillance program.*

TVA Response

- c) A description of channel calibration or functional test is shown in the response for RAI-18a. TVA will perform periodic calibration verification using a periodic maintenance procedure. The periodic calibration verification will be performed within 60 days of a refueling outage considering normal testing scheduling allowances (e.g., 25%). Calibration verification will not be required to be performed more than once per 12 months. These calibration requirements are consistent with the guidance provided in NEI 12-02 section 4.3.

Sketch 1

POOL LEVELS AND REFERENCES

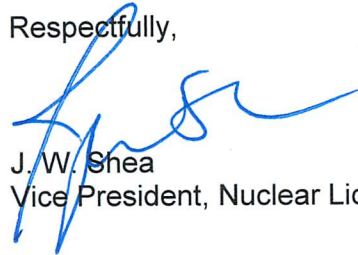


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The Enclosure provides revised regulatory commitment 1. If you have questions regarding this matter, please contact Kevin Casey at (423) 751-8523.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 10th day of January 2014.

Respectfully,



J. W. Shea
Vice President, Nuclear Licensing

Enclosure:

Revised List of Commitments

cc (Enclosure):

NRC Regional Administrator - Region II
NRR Director - NRC Headquarters
NRR Project Manager - Watts Bar Nuclear Plant, Unit 1
NRR Project Manager - Watts Bar Nuclear Plant, Unit 2
NRC Senior Resident Inspector - Watts Bar Nuclear Plant, Unit 1

ENCLOSURE

REVISED LIST OF COMMITMENTS

1. By March 14, 2014, TVA will:
 - a. Notify the NRC that final vendor testing and qualification documentation for RAI #5 is available for review;
 - b. Provide the results and notify the NRC that final vendor testing and qualification documentation for RAI #6 is available for review;
 - c. Provide the results and notify the NRC that testing and qualification documentation for RAI #12 is available for review;
 - d. Notify the NRC that testing and qualification documentation for RAI #15 is available for review;