

WBN2Public Resource

From: Poole, Justin
Sent: Thursday, September 06, 2012 5:14 PM
To: Arent, Gordon
Cc: Hon, Andrew; Keegan, Elaine; WBN2HearingFile Resource
Subject: DRAFT RAI on
Attachments: draft rai on FES.docx

Gordon,

In reviewing TVA's June 11, 2012, submittal to support the FES review, the staff has come up with the attached questions. Please review to ensure that the questions are understandable, the regulatory basis is clear, there is no proprietary information contained, and to determine if the information was previously docketed. If further clarification is needed, and you would like to discuss the questions in a conference call, let us know. This email does not convey a formal NRC staff position, and it does not formally request for additional information.

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From: Poole, Justin

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Recipients:

"Hon, Andrew" <Andrew.Hon@nrc.gov>
Tracking Status: None
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REQUEST FOR ADDITIONAL INFORMATION
FINAL ENVIRONMENTAL STATEMENT, SUPPLEMENT 2,
RELATED TO THE OPERATION OF
WATTS BAR NUCLEAR PLANT, UNIT 2 (TAC NO. ME8203)

Staff has reviewed the document "*Estimates of Entrainment of Fish Eggs and Larvae at Watts Bar Nuclear Plant at Tennessee River Mile 528 from March 2010 through March 2011*" (Accession No. ML12166A068), submitted by letter dated June 11, 2012. This document contains a description of the Supplemental Condenser Cooling Water (SCCW) intake system and provides information including the maximum average velocity, the maximum approach velocity entering the wet well for the traveling water screens, the maximum average through-screen velocity, the maximum average flow rate and the hydraulic entrainment. These numbers appear not to be consistent with those given in Attachment 002_H-12_TVA_WBN_SSCW_Velocity 0.pdf of the letter dated February 25, 2010, "Watts Bar Nuclear Plant (WBN) Unit 2 – Additional Information Regarding Environmental Review" (Accession No. ML100630146).

Based on the review of this document, the staff is requesting the following information be provided.

1. A diagram and a written description of the SCCW intake, the flow rate, and velocity at the SCCW intake. Include in this description the intake flow rate, the expected velocity entering the screen house through the intake sluice gates, into the wet well for the traveling water screens, through the SCCW trash racks, and through the screens for both summer and winter pools. (This description would be similar to that provided in your May 19, 2011, letter to the NRC, "*Watts Bar Nuclear Plant (WBN) Unit 2 – Intake Pumping Station Water Velocity – Response to Request for Additional Information*" (Accession No. ML11143A083)).
2. A written explanation of the differences among the intake flow rates presented in Attachment H-14 (Table 10) and those in Attachment H-12 of the February 2010, RAI response, April 2011, RAI response, and the 2012 "*Estimates of Entrainment of Fish Eggs and Larvae at Watts Bar Nuclear Plant*" document. The staff used the numbers from Attachment H-14 (Table 10) of the letter dated February 25, 2010, as the basis for the water balance provided in the Final Environmental Statement (FES). These numbers are not consistent with the numbers provided for intake flow rate to the SCCW and/or the intake pumping station (IPS) in the Attachment H-12 and/or H-11 of the February 25, 2010, RAI response, April 2011, RAI response, and the 2012 "*Estimates of Entrainment of Fish Eggs and Larvae at Watts Bar Nuclear Plant*" document. The staff understands that the numbers reflect different operational scenarios such as nominal vs. maximum flows, nominal vs. minimum seasonal pool level, etc.
3. A written definition of the terms "approximate maximum average flow rate" (from May 2012 report) and the "Approximate SCCW inflow" from the February 25, 2010, RAI response (Attachment H-12) and a written discussion of the reason for the differences in the values for the SCCW flow rates from the two documents.

ENCLOSURE

4. A written definition of the terms “maximum average velocity” (from May 2012 report) and the “average velocity expected” from the February 25, 2010, RAI response Attachment H-12) and a written discussion of the reason for the differences in the values for the through screen velocities for the SCCW trash rack and traveling screen.

References

- “Estimates of Entrainment of Fish Eggs and Larvae at Watts Bar Nuclear Plant at Tennessee River Mile 528 from March 2010 through March 2011” dated May 2012 as provided in June 11, 2012, letter from TVA to NRC. (Accession No. ML12166A068)
- Attachment 012_H_11_U2_RAI_H-11_Intake_Pumping_Station_Velocity_Rev. 1 of the letter dated February 25, 2010, “Watts Bar Nuclear Plant (WBN) Unit 2 – Additional Information Regarding Environmental Review”; Accession No. ML100630140.
- Attachment 002_H-12_TVA_WBN_SCCW_Velocity 0.pdf of the letter dated February 25, 2010, “Watts Bar Nuclear Plant (WBN) Unit 2 – Additional Information Regarding Environmental Review”, Accession No. ML100630146.
- Attachment 001_H-14_TVA_WBN_Tables of the letter dated February 25, 2010, “Watts Bar Nuclear Plant (WBN) Unit 2 – Additional Information Regarding Environmental Review”; Accession No. ML100630155.
- Letter dated May 19, 2011, from TVA to NRC, Subject: Watts Bar Nuclear Plant (WBN) Unit 2 – Intake Pumping Station Water Velocity – Response to Request for Additional Information”. (Accession No. ML11143A083)
- Letter dated April 29, 2011 from TVA to NRC. Subject: Watts Bar Nuclear Plant (WBN) Unit 2 – Intake Pumping Station Water Velocity – Response to Request for Additional Information. (Accession No. ML1112A025)