



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 19, 2011

Mr. Ashok S. Bhatnagar
Senior Vice President
Nuclear Generation Development
and Construction
Tennessee Valley Authority
6A Lookout Place
1101 Market Street
Chattanooga, TN 37402-2801

SUBJECT: WATTS BAR NUCLEAR PLANT, UNIT 2 – REQUEST FOR ADDITIONAL
INFORMATION REGARDING GENERIC LETTER 2004-02, POTENTIAL
IMPACT OF DEBRIS BLOCKAGE ON EMERGENCY RECIRCULATION
DURING DESIGN BASIS ACCIDENTS AT PRESSURIZED-WATER
REACTORS (TAC NO. MD6726)

Dear Mr. Bhatnagar:

By letter dated March 4, 2011 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML110680248), the Tennessee Valley Authority (TVA) submitted its response to Generic Letter 2004-02 "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors," for Watts Bar Nuclear Plant, Unit 2. This submittal supersedes a previous response letter dated September 10, 2010 (ADAMS Accession No. ML102580175).

The U.S. Nuclear Regulatory Commission staff has reviewed the information provided by TVA and finds that additional information is needed to complete its review. The specific questions are in the enclosed request for additional information.

A response is required within 15 days of receipt of this letter as agreed to by your staff. If you cannot provide your response within the required time, please provide a letter to the NRC staff with the reason and a new date for your response.

If you should have any questions, please contact me at 301-415-2048.

Sincerely,

A handwritten signature in black ink, appearing to read "Justin C. Poole", written over a horizontal line.

Justin C. Poole, Project Manager
Watts Bar Special Projects Branch
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-391

Enclosure:
Request for Additional Information

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION

WATTS BAR NUCLEAR PLANT, UNIT 2

GENERIC LETTER 2004-02

TENNESSEE VALLEY AUTHORITY

DOCKET NO. 50-391

EMCB RAI 1

In response to Item 3.k.1 of the Watts Bar Nuclear Plant (WBN), Unit 2, supplemental Generic Letter (GL) 2004-02 response (Reference 1), four out of the six load combinations for which the strainers were structurally qualified include loads due to either an operating basis earthquake (OBE) or a safe shutdown earthquake (SSE). However, no information was provided regarding the structural damping values used in the seismic analyses of the strainers, including their individual components, as part of the structural qualification of these components. Please provide the OBE and SSE damping values used for the strainer structures in the aforementioned analyses.

EMCB RAI 2

Note 3 accompanying the loading combinations in Reference 1, which were considered in the structural analyses of the WBN Unit 2 sump strainers, indicates that loads due to jet impingement and debris impact were not considered in the final strainer design. The response to Item 3.k.3 of the WBN Unit 2 supplemental GL 2004-02 response clearly articulates that loads due to jet impingement are not credible, due to the location of the sump strainers. However, there is little justification for neglecting the postulated loads due to debris impact. Please provide additional justification and/or explanation regarding the exclusion of debris impact loads from the applicable loading combinations considered in response to Item 3.k.1.

EMCB RAI 3

Note 6 accompanying the aforementioned loading combinations considered in the structural analyses of the WBN Unit 2 sump strainers, indicates that loads due to hydrostatic or hydrodynamic effects were not considered in the final strainer design. There is no accompanying justification for the exclusion of the effects of these loads in the sump strainer structural analyses. Please provide additional justification regarding the exclusion of hydrostatic and hydrodynamic loads. This justification should include, but not be limited to, whether submergence, sump strainer construction, or the bounding of these effects by other loads account for the absence of hydrostatic and hydrodynamic loads in the current structural analyses.

Reference

Letter from D. Stinson, Tennessee Valley Authority, to Nuclear Regulatory Commission Document Control Desk, "Watts Bar Nuclear Plant (WBN) Unit 2 – Response to Generic Letter (GL) 2004-02, Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors," dated March 4, 2011 (ADAMS Accession No. ML110680248).

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/RA/

Justin C. Poole, Project Manager
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