



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

June 28, 2011

LICENSEE: Tennessee Valley Authority (TVA)  
FACILITY: Sequoyah Nuclear Plant, Units 1 and 2, and Watts Bar Nuclear Plant, Unit 1  
SUBJECT: SUMMARY OF MAY 12, 2011, MEETING WITH TVA ON THEIR PROPOSED RESPONSE TO A REQUEST FOR ADDITIONAL INFORMATION ON GENERIC LETTER 2004-02 (TAC NOS. MC4717, MC4718, AND MC4730)

On May 12, 2011, a Category 1 public meeting was held between representatives of Tennessee Valley Authority (TVA, or the licensee) and the Nuclear Regulatory Commission (NRC) staff, at the request of the licensee. The purpose of the meeting was to discuss the small break loss-of-coolant accident (SBLOCA) water level calculations, the containment sump strainer structural integrity calculations, and the schedule for TVA's final responses to the NRC staff's requests for additional information (RAIs) dated October 14, 2009, for Sequoyah Nuclear Plant (SQN), Units 1 and 2, and September 29, 2009, for Watts Bar Nuclear Plant (WBN), Unit 1 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML092780335 and ML092650260, respectively). Enclosure 1 contains a list of attendees. The licensee presented slides that may be accessed from NRC's ADAMS through Accession No. ML11152A170.

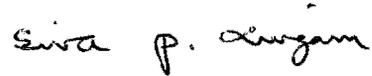
The NRC's RAI letters were in response to TVA's submittals for NRC Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized Water Reactors," for SQN, Units 1 and 2, and WBN, Unit 1. The licensee provided draft responses on June 3, 2010 (ADAMS Accession No. ML101590409) to the NRC staff's RAIs and the NRC staff discussed each proposed response in detail including the test plans and its results with the licensee and its contractors on June 10, 2010, June 17, 2010, July 1, 2010, August 17, 2010, and September 20, 2010.

The details of the discussion are provided in enclosure 2.

The licensee will provide its final RAI responses for SQN, Units 1 and 2 in 2 to 3 weeks in a letter to the NRC.

Members of the public were not in attendance and no Public Meeting Feedback forms were received.

Please direct any inquiries to me at 301-415-1564 or by email to [siva.lingam@nrc.gov](mailto:siva.lingam@nrc.gov).



Siva P. Lingam, Project Manager  
Plant Licensing Branch 2-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-327, 50-328,  
and 50-390

Enclosures:

1. List of Attendees
2. Meeting Discussion

cc w/encls: Distribution via Listserv

MAY 12, 2011

LIST OF ATTENDEES

U. S. NUCLEAR REGULATORY COMMISSION (NRC)

WITH TENNESSEE VALLEY AUTHORITY (TVA)

REGARDING GENERIC LETTER 2004-02

REQUEST FOR ADDITIONAL INFORMATION DRAFT RESPONSES

NRC

Ralph Architzel  
Stewart Bailey  
Siva Lingam  
Stephen Smith

TVA

Chris Carey  
Jeffrey Hanevich  
Benjamin Kennedy  
Robert Kirkpatrick  
Rod Krich  
David Lafever  
Kara Stacy  
Kelli Yates

May 12, 2011

MEETING DISCUSSION

U. S. NUCLEAR REGULATORY COMMISSION

WITH TENNESSEE VALLEY AUTHORITY

REGARDING GENERIC LETTER 2004-02

WATER LEVEL AND STRUCTURAL INTEGRITY CALCULATIONS

The meeting to discuss the subject issues was originally scheduled on October 28, 2010, and was cancelled by Tennessee Valley authority (TVA, or the licensee) due to incomplete engineering calculations.

On May 12, 2011, the licensee presented information regarding their sump level calculations for Sequoyah Nuclear Plant (SQN), Units 1 and 2, and Watts Bar Nuclear Plant (WBN), Unit 1. The Nuclear Regulatory Commission (NRC) staff had expressed concern that if the strainers were not fully submerged that the potential for additional failure modes during recirculation would have to be considered. The licensee stated that the original sump level calculations were performed very conservatively with the sole intent of validating that vortex formation would not occur at the Emergency Core Cooling System inlet piping. The original sump level calculations did not evaluate the sump level with respect to the height of the new strainers. The licensee removed some of the excessive conservatism from the calculation and determined that the SQN, Units 1 and 2 strainers would be fully submerged before excessive head loss could occur across the strainer and the WBN, Unit 1 strainers would be fully submerged prior to recirculation. The NRC staff agreed that the methodology being used by the licensee would be acceptable to show adequate strainer submergence.

The licensee discussed the replacement of problematic insulating material at WBN, Unit 1. The licensee had previously conducted strainer head loss testing that showed that head losses would be acceptable if the problematic material is removed. The NRC staff agreed that removal of the problematic material would result in acceptable head loss for the strainer.

The licensee also provided information regarding the structural qualification of the WBN, Unit 1 strainers. The original head loss test results showed that the differential pressure across the strainer was greater than the calculated allowable load. The licensee is performing activities to reduce the clean strainer head loss, reduce debris head loss (by removal of problematic material discussed above), and reevaluate the allowable strainer structural limits. The NRC staff indicated that the licensee actions appeared to be adequate to address the issue, however, a detailed technical review of the structural qualification would be required by the NRC structural engineer.

The NRC staff stated that the licensee is taking appropriate actions to address the issues discussed at the meeting and that the licensee methodologies are appropriate. However, the NRC staff will have to review the licensee's final submittal prior to making its ultimate determination on closeout of the issues.

Enclosure 2

Members of the public were not in attendance and no Public Meeting Feedback forms were received.

Please direct any inquiries to me at 301-415-1564 or by email to [siva.lingam@nrc.gov](mailto:siva.lingam@nrc.gov).

**/RA/**

Siva P. Lingam, Project Manager  
Plant Licensing Branch 2-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-327, 50-328,  
and 50-390

Enclosures:

1. List of Attendees
2. Meeting Discussion

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PACKAGE ACCESSION NO. ML11152A171  
MEETING NOTICE ACCESSION NO. ML110700031  
MEETING SUMMARY ACCESSION NO. ML11152A163  
SLIDES PRESENTATION ACCESSION NO. ML11152A170

OFFICE	DORL/LPL2-2/PM	DORL/LPL2-2/LA	DSS/SSIB/BC
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OFFICE	DORL/LPL2-2/BC	DORL/LPL2-2/PM	
NAME	DBroadus (CGratton for)	SLingam	
DATE	06/28/11	06/28/11	

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