



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

June 17, 2010

LICENSEE: Tennessee Valley Authority (TVA)
FACILITY: Sequoyah Nuclear Plant, Units 1 and 2, and Watts Bar Nuclear Plant, Unit 1
SUBJECT: SUMMARY OF JUNE 10, 2010, CONFERENCE CALL WITH TVA ON THEIR PROPOSED RESPONSE TO A REQUEST FOR ADDITIONAL INFORMATION ON GENERIC LETTER 2004-02 (TAC NOS. MC4717, MC4718, AND MC4730)

On June 10, 2010, a Category 1 public conference call was held among the Nuclear Regulatory Commission (NRC) staff and representatives of Tennessee Valley Authority (TVA or the licensee) and TVA's contractors, AREVA, PCI and Alden Research Laboratory. A list of call participants is provided as Enclosure 1. The purpose of the call was to discuss TVA's proposed 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). The NRC's RAI letters were in response to TVA's submittals for NRC Generic Letter (GL) 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 NRC staff has been conducting calls with all licensees who are responding to RAIs on GL 2004-02 with the intent of providing NRC guidance in order to reduce the need for additional rounds of RAIs.

The NRC's RAIs requested the licensee to be prepared to discuss its proposed responses with the NRC staff prior to formal submittal. 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 with the licensee and its contractors. Enclosure 2 summarizes the discussion of each proposed response.

The licensee will provide its final RAI responses in a letter to the NRC. Please direct any inquiries to me at 301-415-1564, or by email to siva.lingam@nrc.gov.

A handwritten signature in cursive script that reads "Siva P. Lingam".

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 Participants
2. Summary of the Conference Call

cc w/encls: Distribution via Listserv

List of Participants

U.S. Nuclear Regulatory Commission (NRC) JUNE 10, 2010
Conference Call with Tennessee Valley Authority (TVA),
AREVA, PCI, and Alden Research Laboratory
Regarding Generic Letter 2004-02
Request For Additional Information Draft Responses

NRC

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John Lehning
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TVA

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Doug Pollock
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Cynthia Maples-Abidi
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Chris Kudla

Alden Research Laboratory

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Summary of the Conference Call
U.S. Nuclear Regulatory Commission JUNE 10, 2010
Conference Call with Tennessee Valley Authority,
AREVA, PCI, and Aiden Research Laboratory
Regarding Generic Letter 2004-02
Request For Additional Information (RAI) Draft Responses

Sequoyah Nuclear Plant (SQN), Units 1 and 2:

- RAI 1A: The licensee will clarify second bullet under draft to match test protocol wording that protocol will generally eliminate settling. With that change, this response will be acceptable.
- RAI 1B: The licensee will change reference in second bullet to NUREG/CR-6808. With that change, this response will be acceptable.
- RAI 1C: The licensee will state that fines will not be mechanically separated from small pieces of fibrous debris. With that change, this response will be acceptable.
- RAI 1D: Response acceptable as is.
- RAI 1E: Response acceptable as is.
- RAI 1F: Nuclear Regulatory Commission (NRC) staff does not accept previous testing as basis for nontransportability of miscellaneous debris. The licensee will state it plans to credit nontransportability of miscellaneous debris through additional transport testing with individual types of debris to determine whether incipient transport occurs. The licensee will state that the test velocity will be representative of the flow steam velocities at which the miscellaneous debris would transport to the strainer (e. g., based on plant computational fluid dynamics simulation). With the above changes, the response is acceptable.
- RAI 1G: The licensee will add discussion of additional vortex suppression features downstream of strainer and upstream of intake. To address flashing, the licensee will compare strainer head loss against subcooling margin.
- RAI 4: The licensee will remove reference to 1/8" fiber additions. With this change, this response will be acceptable.
- RAI 5: Response acceptable as is.
- RAI 6: Response acceptable contingent on acceptable response to RAI 1G.
- RAI 9: Response acceptable as is.

Watts Bar Nuclear Plant (WBN), Unit 1:

RAI 1: The licensee will state zone of influence for Min-K and 3M fire barrier is per NRC staff safety evaluation on Nuclear Energy Institute 04-07, 28.6D. The licensee will add this to the response, which will then be acceptable.

RAI 3: Fibrous Debris Preparation and introduction with respect to Prototypical Sizing - The licensee will make same change as for SQN, Units 1 and 2 response to RAI 1B.

Flume Velocity and turbulence – Response acceptable as is.

Near-Field settling - Response acceptable as is.

Debris addition to the Test flume - The licensee will make same change as for SQN, Units 1 and 2 response to RAI 1B.

Head Loss Termination Criteria - NRC staff emphasized that any extrapolation of test results should bound data. If an exponential extrapolation is used, it should be validated as appropriate with emphasis on trend over last part of test. The licensee stated this is consistent with their plans. With the changes noted above, the response will be acceptable.

RAI 4: The licensee will provide additional information on vortex suppression features appropriately consistent with response to Sequoyah RAI 1G and will address flashing in the same manner as for Sequoyah response to RAI 1G.

RAI 8: NRC staff found this response still not adequate since it does not address shrinkage of reactor coolant system inventory. NRC staff noted that this issue could be resolved by explicitly accounting for the effect in the calculation or demonstrating that existing conservatisms in the minimum level calculation would bound this effect. The licensee stated they would evaluate path forward for this and provide a revised response.

The licensee believes this issue has been addressed for Sequoyah Nuclear Plant in prior submittals, but will verify and inform NRC staff of path forward.

Comments on the Test Plan for SQN, Units 1 and 2, and WBN, Unit 1

Note after Item 36, page E3-4. The licensee will generalize expected behavior as stated in the note.

NRC staff stated position that 1/16" batches are appropriate for doing these tests since thin bed formation point cannot readily be predicted. The licensee stated that test protocol would be revised for Sequoyah Nuclear Plant, Units 1 and 2, and Watts Bar Nuclear Plant, Unit 1 to show 1/16" batches.

Follow-up Action

Follow-up call will be held on June 17, 2010. During that call, the licensee will provide expected submittal date for revised draft responses to SQN, Units 1 and 2 RAI 1G, and WBN, Unit 1 RAIs 4 and 8. Also, during the call, NRC staff will provide any additional feedback on the test plan.

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/RA/

Siva P. Lingam, Project Manager
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 Division of Operating Reactor Licensing
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