



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

March 27, 2012

LICENSEE: Tennessee Valley Authority

FACILITY: Watts Bar Nuclear Power Plant, Unit 2

SUBJECT: SUMMARY OF JUNE THROUGH JULY 2011, PUBLIC MEETINGS WITH
TENNESSEE VALLEY AUTHORITY REGARDING SUBMITTAL OF WATTS
BAR NUCLEAR PLANT, UNIT 2, FIRE PROTECTION REPORT

On June 30, July 12, and July 28, 2011, three Category 1 public meetings were held between the U.S. Nuclear Regulatory Commission (NRC) staff and representatives of the Tennessee Valley Authority (TVA) at NRC Headquarters, One White Flint North, 11555 Rockville Pike, Rockville, Maryland. The purpose of the meetings was to discuss the submittal of Watts Bar Nuclear Plant Unit 2 Fire Protection Report, in support of TVA's application for an operating license. A list of participants is Enclosure 1.

The meeting on June 30, 2011, consisted of the NRC and TVA staff discussing draft requests for additional information (RAIs) based on the content of the fire protection report under technical review. As a result of the meeting, the staff issued RAIs that can be found in the Agencywide Documents Access and Management System at Accession Number ML111823580.

The meetings on July 12 and 28, 2011, focused on TVA's response letter dated July 1, 2011, and apparent inconsistencies concerning standpipe flow testing in an RAI response and what TVA stated at the public meeting on June 30, 2011. Enclosure 2 contains the handout used as part of the July 12, 2011, meeting. TVA stated that revisions due to this meeting would be incorporated into the August Fire Protection Report submittal.

Members of the public did not participate in the meeting.

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Please direct any inquiries to me at 301-415-2048 or Justin.Poole@nrc.gov.

A handwritten signature in black ink, appearing to read 'JP', with a long horizontal flourish extending to the right.

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

Docket No. 50-391

Enclosures:

1. List of Attendees
2. Meeting Discussion Points

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LIST OF ATTENDEES
JUNE THROUGH JULY 2011, PUBLIC MEETINGS WITH
TENNESSEE VALLEY AUTHORITY
SUBMITTAL OF WATTS BAR NUCLEAR PLANT, UNIT 2
FIRE PROTECTION REPORT

<u>Name</u>	<u>Position/Title</u>	<u>Organization</u>
Steve Campbell	Branch Chief	Watts Bar Special Projects Branch (LPWB) Division of Operating Reactor Licensing (DORL)
Patrick Milano	Sr. Project Manager	LPWB\DORL
Justin Poole	Sr. Project Manager	LPWB\DORL
Daniel Frumkin	Team Leader	Fire Protection Branch (AFPB) Division of Risk Assessment (DRA)
Charles Moulton	Fire Protection Engineer	AFPB/DRA
Gary Cooper	Fire Protection Engineer	AFPB/DRA
Michelle Kichline	Mechanical Engineer	Aging Management of Plant Systems Branch Division of License Renewal

Tennessee Valley Authority (TVA) Participants:

Gordon Arent	Licensing Manager	TVA Watts Bar Unit 2
William Crouch	Engineering	TVA Watts Bar Unit 2
Steve Hilmes	Instrumentation and Electrical Manager	TVA Watts Bar Unit 2
Kevin Dutton	Engineering	TVA
Ernst Haston	Engineering	TVA
John Sterchi	Fire Protection	TVA
C. Charles Brush	Electrical Engineer	EPM

Discussion Points on July 1, 2011, Watts Bar Nuclear Plant (WBN) Unit 2 Operator Manual Action (OMA) Submittal and Related OMAs

- 1) Regulatory Guide (RG) 1.189, Revision 2 includes guidance regarding classifying equipment as "safe shutdown success path" or "important to safe shutdown." The Tennessee Valley Authority (TVA) response to request for additional information (RAI) Fire Protection Report (FPR) V-2 indicates that evaluations are for "components that are required for the credited safe shutdown path." Yet the proposed Section 8.1 of Part VII states that evaluations for "spurious equipment operation having the potential to interfere with safe shutdown" are also included. The category of equipment that could interfere with safe shutdown is important to evaluate but is beyond the scope of what was requested in FPR RAI V-2. Section 2.1.1 of FPR Section V, includes the criteria and assumptions for those OMAs that are considered sufficient levels of detail requiring Nuclear Regulatory Commission (NRC) staff review.

Some examples from the July 1, 2011, submittal include:

- a. For example, 8.3.1.5, OMA 1154, to stop a pump that spuriously started. Since this pump is not part, "of redundant success paths necessary to achieve and maintain hot-shutdown conditions," it would be considered important to safe shutdown since it could affect safe shutdown, but is not part of the success path.
 - b. Also, 8.3.40.3, OMA 534 – is the start of an air-handling unit. RG 1.189 states, in section 5.3.1.5, that, "HVAC systems and components required to provide cooling to success path components to the extent that cooling is required for postfire safe shutdown," is an example of important to safe shutdown.
 - c. 8.3.28.5 and 8.3.28.6, OMAs 1296, 1297, 1330, relate to turning off pressurizer heaters, which would be an important to safe shutdown action. Also, OMA 1414 in 8.3.28.8, turning off motor-driven auxiliary feedwater breaker, is important to safe shutdown.
 - d. Not enough information is available to determine if the OMAs discussed in 8.3.28.4 and 8.3.28.5, OMAs 1016 and 1023 that relate to operating steam generator relief valves are part of the required safe shutdown train. If so, they are safe shutdown success path components – if not part of the train then important to safe shutdown.
- 2) AV-037C (page VI-348 of May 18, 2011, FPR) includes a manual action for 1-MTR-74-10-A – must not start – required in 8 minutes. This 8 minute action is not discussed in the July 1, 2011 submittal, and is not consistent with section 2.1.2.1.a, since it is less than 10 minutes.

Also, AV-001 includes a 5 minute Local Manual Action. This is not consistent with FPR Section V, 2.1.2.1.a.

The NRC staff understands this is a Unit 1 action, and that it was initially submitted in the Rev. 5 FPR. But in order for the NRC staff to issue a single safety evaluation for fire protection at WBN, the conflict between FPR Section V, 2.1.2.1.a and less than 10 minute OMAs should be resolved.

3) Conflict in the Rooms that make up AV-037C:

Part VI - 3.19.5.4 - 3 rd Room	737.0-A1C	Aux Bld, Column Lines U-RxCL/A5-A11
Part III – Table 3-3	Fire Area 14 – 737.0 -A1CN	Aux Bld, Column Lines V-U/A5-A11

AV-037C is in one place described as including 737.0-A1C, and in another place as including 737.0-A1CN. It appears to be the same analysis volume made up of different Rooms.

- 4) 3.23.2.5 – AV-042G – states “See Remarks,” in the Local Manual Operator Actions. There do not appear to be remarks in Pat VI.
- 5) The July 1, 2011, submittal states that the evaluations were performed consistent with guidance in NUREG-1852. NUREG-1852, in Section 4.2.9.1, “Procedures,” describes preventive and reactive manual actions.

In the case of preventive actions (i.e., actions that the plant staff expects to take on the basis of the occurrence of a particular fire, without needing further diagnosis, in order to mitigate the potential effects of possible spurious actuations or other fire-related failures so as to ensure that hot shutdown can be reached and maintained), the procedures should be written to cover the possibility that the fire effects occur before the preventive actions are completed.

“For reactive actions (that is, actions taken by plant staff during a fire in response to an undesired change in plant status when the staff must diagnose the need for the actions), relevant procedures should clearly describe the indications which prompt initiation of the actions.” (Emphasis added)

The OMA submittals do not provide confidence that for preventive and reactive actions that are needed to be performed in a short period of time (e.g., OMAs needed to be performed in less than 30 minutes or so), the procedures are sufficiently clear and directive such that diagnosis does not create an unacceptable delay in the performance of the actions.

Please direct any inquiries to me at 301-415-2048 or Justin.Poole@nrc.gov.

/RA/

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Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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